

T. JOHN COLLEGE

BENGALURU: 560 083

www.tjohncollege.com

(Affiliated to Bangalore University)

T. JOHN COLLEGE

Quality Education with Global Perspective

FASHION AND APPAREL DESIGN

B.Sc {FAD} - I SEMESTER

COURSE DETAILS AND QUESTION BANK

2020-2021

Name:

Roll No.:

QUALITY EDUCATION WITH GLOBAL PERSPECTIVE

FAD I SEMESTER

INDEX

SL.NO	CODE	SUBJECT	PAGE.NO
1		PRINCIPAL'S DESK	
2		CALENDER OF EVENTS	
3		SCHEME OF INDUSTRUCTION AND EXAMINATION	
4		TIME TABLE OF CLASS	
5		TIME TABLE OF INTERNALS	
6		TIME TABLE OF PRE FINALS	
7	FAD 102	GENERAL ENGLISH	
8		QUESTION PAPERS	
9	FAD103A	FIBER AND YARN SCIENCE (THEORY)	
10	FAD103B	FIBER AND YARN SCIENCE (PRACTICAL)	
11		QUESTION PAPERS	
12	FAD104A	ELEMENTS OF FASHION AND DESIGN (THEORY)	
13	FAD104B	ELEMENTS OF FASHION AND DESIGN (PRACTICAL)	
14		QUESTION PAPERS	
15	FAD105A	PATTERN MAKING AND GARMENT CONSTRUCTION - 1 (THEORY)	
16	FAD105B	PATTERN MAKING AND GARMENT CONSTRUCTION - 1 (PRACTICAL)	
17		QUESTION PAPERS	
18		ENVIRONMENTAL STUDIES	
19		QUESTION PAPERS	

PRINCIPAL'S DESK

Scheme of Instruction and Examination

B.Sc. - FASHION and APPAREL DESIGN (CBCS)

SEMESTER -I

SEMESTER I								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
FAD103 A FAD 103 B	Fibre& Yarn Science	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD104 A FAD104 B	Elements of Fashion & Design	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD105 A FAD105 B	Pattern Making & Garment Construction- I	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	Constitution of India and Human Rights	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	**800**			**16**

\

TIME TABLE OF CLASS

GENERAL ENGLISH

{THEORY}

GENERAL ENGLISH (FAD 102)

SYLLABUS

List of lessons for I Semester B.Sc/BCA and other courses coming under the Faculty of Science

POETRY

1. I shall go back in the New Year - Nilim Kumar
2. Sonnet--- Yehuda Amichai

PROSE

1. The Wolf –Farooq Sarwar
2. Leaving – M.G. Vassanji
3. Real Food—Chimamanda Ngozi Adichie
4. Wings of Fire—Abdul Kalam
5. Relations between men and women – Raja Ram Mohan Roy
6. Stay Hungry, Stay Foolish- Steve Jobs

Suggested Reading: Literature and Science—Essay

Grammar and Composition.

Listening Skills a. Looking for Specific Information- Scanning

a. Listening to Specific Instructions
b. Listening to Different Text Types- Speeches

Speaking Skills:

a. Introducing Oneself
b. Giving Instructions
c. Describing People, Places, Things, Process Etc
d. Narrating An Event, Occurrence Etc

Reading Skills: (to be integrated within the literary texts in every unit)

Grammar Usage: Phrase, Clause, Sentence

a. Phrases- noun, adjective, adverb, verb, preposition- articles
b. Clauses—coordinate, subordinate
c. Sentence- making sentences (simple, compound, complex), subject- verb agreement
b. Looking for The Gist-Skimming

C. Reading for Comprehension At Different Levels- Factual, Interpretative, Inferential, Evaluative

Writing Skills:

a. Paragraph Writing
b. Letter Writing- Leave Letters, Letters of Complaint

Department of Languages				
Individual Class Plan - I FAD (2020) GENERAL ENGLISH				
No. Of hours required as per University: 45				
No. Of hours planned by faculty: 52				
Subject Teacher		Rose M Vase		
Sl. No	**CHAPTER**	**Topics**	**No.Of Hours**	**Total Classes**
1	UNIT- 1	Introduction of students: Quiz n activity in English.	1	8
2		Introduction to General English	1	
3		I Shall go back in the new year	1	
4		I Shall go back in the new year	1	
5		Summary and Discussion of Questions	1	
6		Written Assignment	1	
7	UNIT-2	Sonnet-Yehuda Amichai	1	6
8		Sonnet-Yehuda Amichai	1	
9		Summary and Discussion of Questions	1	
10		Reading Comprehension-Explanation & Interaction	1	
11		OPEN BOOK TEST	1	
12	UNIT-3	The Wolf	1	6
13		The Wolf	1	
14		The Wolf	1	
15		Discussion of Q & A,Written Assignment	1	
16		Reading Comprehension-Exercises & Assignments	1	
17		Grammar Usage : Subject- Sentence Making	1	
18	UNIT-4	Leaving -Introduction	1	6
19		Leaving :Summary & Explanation	1	
20		Leaving :Summary & Explanation	1	
21		Discussion of Q & A, Written Assgment	1	
22		Discussion of Q & A, Written Assgment	1	
23	UNIT- 5	Real Food-Introduction, Reading, Explanation, Vocabulary	1	8
24		Real Food-Introduction, Reading, Explanation, Vocabulary	1	
25		Real Food-Introduction, Reading, Explanation, Vocabulary	1	
26		Discussion of Q & A, Written Assgment	1	
27		Writing Skills- Introduction & Explanation	1	
28		Revision Test: Question and Answers,Literature	1	
29		Revision Test :Grammar	1	
30		Doubt Clearing Session	1	
31	UNIT-6	Wings of FireIntroduction, Reading, Explanation, Vocabulary	1	6
32		Wings of FireIntroduction, Reading, Explanation, Vocabulary	1	
33		Wings of FireIntroduction, Reading, Explanation, Vocabulary	1	

34		Discussion of Q & A, Written Assgment	1	
35		Discussion of Q & A, Written Assgment	1	
36		Written Assignment	1	
37	UNIT-7	Relations between men and women Introduction, Reading, Explanation	1	6
38		Relations between men and women Introduction, Reading, Explanation	1	
39		Relations between men and women Introduction, Reading, Explanation	1	
40		Relation between men an women discussion of questions-answers	1	
41		Listening Skills-Explanation, exercises, Assignments	1	
42		Listening Skills-Explanation, exercises, Assignments	1	
43	UNIT-8	Stay hungry, stay foolish - Steve Jobs. Introduction, Reading , Explanation	1	8
44		Stay hungry, stay foolish - Steve Jobs. Introduction, Reading , Explanation	1	
45		Stay hungry, stay foolish - Steve Jobs. Introduction, Reading , Explanation	1	
46		Reading Comprehension-Explanation & Interaction	1	
47		Written Assignment	1	
48		OPEN BOOK TEST	1	
49		Grammar Usage : Subject- Sentence Making	1	
50		Listening Skills-Explanation, exercises, Assignments	1	
51		Revision- Revising all literature modules	1	
52		**Doubt Clearing Session**	1	

General English – Module Questions

Lesson 1-.I shall go back this New Year by Nilim Kumar

I Answer in one or two sentences

1. Why does the poet prefer bamboo fence?
2. What would become of the cake sent by the mother?
3. Why does the poet want to sell his two cars?

II Short Paragraph

1. Why does the poet want to go back?
2. Why does the poet think he is different from others?

III Essay

What does the concept of "going back in this New Year" elucidate in the poem?

Lesson 2- The Wolf - Farooq Sarwar

I Answer in one or two sentences

1. What amazed the sight of the author one day in the lesson "The Wolf"??
2. What are the facilities offered by the magical Tree?

Lesson 3.-Sonnet (My Father)

1. What is the wisdom the father intends to pass on to his son?Why
2. What is the difference between the wars fought by the father and the son?

Lesson4- LEAVING MG VASANJI

I Answer in one or two sentences

1. Who is the narrator of the story?
2. Why did the family shift from Uhuru Street?
3. What motivated Aloo to seek admission to an American University?

IIShort Paragraph

1. Describe the Narrator's family.
2. Why is Aloo not keen to pursue his studies at the local university like his peers?
3. Despite the obstacle he faced how did Aloo succeeding his dream of studying abroad?
4. How does mother ensure that Aloo leaves for further studies with a happy frame of mind?
5. Aloo Promised to work his way through college to repay the loan and not to let his mother down. Comment on the mixed emotions of the mother?

Lesson 5- Real Food

I.Essay

1. Describe the circumstance which led the mother to make food for her daughter separately?

2. Why does the narrator say that Garri is important for her people?

3. Why did the Narrator's family call her a foreigner?

4. Do you find any similarity between the food culture of the narrator's family and yours? Not the similarities and differences?

5. Why does the author title the piece as "Real Food"?

Lesson 6- Wings of Fire A.P.J Abdul Kalam

1. Describe briefly the place of Abdul Kalam's birth.
2. Narrate the childhood of Abdul Kalam with a brief review of the things and persons that influenced him in his childhood
3. Narrate Kalam's childhood and the influences of Kalam during his childhood.
4. Write a brief note on a. Jainulbdeen b. Ashiaamma

Lesson 7. Relationship between Men and Women

I.Answer the following questions in one or two sentences each:

1. Who are the YOU in the text?

2. Women are inferior to men in Physical strength and energy.

3. What has been denied women from exhibiting their natural capacity?

4Who is deceived more often?

5. What are the duties performed by women early in the morning?

6. Why are the quarrels more common amongst Hindus?

7. When are the women insulted by the husband and the mother in law?

II Answer in short paragraph

1. Why can't women be considered inferior to Men?

2. Comment on the female firmness of mind?

3. How is the misconception of omen being unworthy of trust promulgated by men?

4. Are women subject to passion more than men? How does Roy dispel this misconception?

5. Women are treated worse than inferior animals. Elaborate?

6. What is distressing situation that women endure?

Lesson 8. STAY HUNGRY STAY FOOLISH

I Answer the following questions in one or two sentences each:

1. What was the occasion Steve Jobs delivered the address on?

2. Jobs had to struggle without food many times, what was his attitude to such devastating situations?

A.Pessimistic B. Optimistic C.Resigned

3. Who was his mother? What did she want to do with her son?

4. What was her specification about the child's adaptation?

5. Who adopted the child finally? Were they graduates?

6. Why did Steve Job's mother finally relent to sign the adoption papers?

7. He was really happy to drop out of the college he naively chose. True/False.

8. What would he do to get one good meal a week?

9. After Jobs was fired, he was

a. disheartened
b. pessimistic
c. determined to re-begin
d. none

10. Where did Jobs apply his knowledge of calligraphy?

11. What was jobs diagnosed with?

12. What did the doctors do when they viewed Jobs cells under a microscope? Why?

13. Who according to Jobs is a fool?

14. What is the importance of listening to one's inner voice, according to Jobs?

II Answer in short paragraph

1. Why did Jobs leave the college?

2. Why did Jobs evince interest in calligraphy?

3. How did calligraphy help in designing Mac?

4. Why does Jobs call the first story narrated as connecting the dots? How does he do it?

5. Describe the story of love and loss in the second story?

6. Why was Jobs fired from the company?

7." Passion for work is the key to success" Substantiate. Steve Jobs father instilled his first love that is love for electronics. He connected, dismantled devices in his father's garage and became confident to experiment. He dropped out of college and learnt it. He felt calligraphy was

beautiful, wonderful and artistic skill. Calligraphy captured what science cannot and it was fascinating for him.

8. Explain Jobs concept of death.

GRAMMAR and COMPOSITION

I. Rewrite as directed:

1. Add a suffix to the word in the bracket and fill in the blank:

a. The firm has been very _____ (product) in the recent years.

b. The judges in the reality show expressed their unanimous _____(appreciate) on the performance of the child artist.

2. Choose the right expression from the bracket:

a. All our plans for a pleasant weekend trip went _____ (up and down/topsy-turvy) owing to heavy rains.

b. The Government will_____ (take up/take in) the new proposal for developmental works for next year.

3. Choose the appropriate word to fill in the blanks:

a. My cousin says she has a _____ for _____technology (fashion/passion).

b. He is the _____person in the group who has a generous _____for the needy (sole/soul).

4. Fill in the blanks with appropriate forms of the words given in the brackets:

a. While in London, Gandhi made several unsuccessful attempts at playing the English gentleman. Soon he _____ (decide) to give up the idea and remain an Indian. His _____ (decide) was appreciated by his teachers.

b. Edison _____ (invent) the electric bulb. The _____ (invent) created a revolution. 2

5. Fill in the blanks with an appropriate article:

a. His mother is _____honest person.

b. He is _____Einstein of our college.

6. Fill in the blanks with appropriate preposition:

a. There is a bridge _____the river.

b. The teacher asked the student to sit_____ the chair.

7. Fill in the blanks with the correct verb:

a. Either Sanyal or Satwik_____ a doctor (is/are).

b. Politics_____ not everyone's cake. (is/are).

8. Fill in the blanks in the following sentences with appropriate tense form of the verb given in The brackets:

a. When did you _____ (reach) the place?

b. The earth _____ (revolve) round the sun.

c. She _____ (teach) the children last year.

d. Ms.Sudha _____ (walk) to the office every day.

9. Rewrite the following with appropriate punctuation marks wherever necessary.

a. it was the dropping of a bomb on Nagasaki which virtually made japan surrender during world war ii

b. why havent you got the receipt after paying the fees it is very strange

10. When I was about 12 years old, my older brother, James, smuggled a BB gun into the house the starry sky. I am not quite sure when he got it from. This was in 1938, during the Great Depression. He must have battered (exchanged) for it with one of his friends. Having any form of weaponry in our home was strictly was taboo. James brought me to his room and took the BB gun out of a shoebox in his closet. I was immediately enamored. He let me touch it and walked with it around the room. I fingered the trigger.

"Can I shoot it, Jamesie?" I asked hopefully. "No way", James said, taking it from me and putting it back into its covert spot.

I forgot about it for a while, but one day, when no one was home, I went into James' closet and took it out. For some unknown reason, I went to front window of the second floor in our row

house. I cracked the window open. I pointed the gun outside and shot. I quickly shut the window and peeked outside. In a matter of seconds old Mr.Scholsberg came out of his grocery store. He looked back at his store window. He looked up the street. He looked down the street. Then he looked straight across to our house. He could tell from the trajectory just where the shot had come from. He knew someone in our house was culprit.

I ran back to James room to return the gun and then sat downstairs, waiting nervously for someone to get home. Thankfully Jamesie made it home before mother or father. As he stepped through the door I could hear Mr.Scholsberg call his name.

"James, James", he called. "Come here son". I crept senselessly to look out the door and saw Mr.scholberg pointing feverishly at our house (up to the second floor window!) and then at his shop window. James ran back across the street and into living room. I had retreated into the kitchen**.**

"Alma!" he screamed. "Get out here! You cracked Mr.Scholberg's window with my BB gun!"

"Oh! Please Jamesie," I begged. "Don't let him tell mother. She will whip my bottom real good!"Jamesid sighed. He wiped my tears and went back across the street to Mr.Scholberg's.

I don't know what James said to that man, but there was never a mention of the incident again. I don't know how I got out of it, but I got out of it, and that was all that mattered to me then .I was too self-absorbed to realize what a great brother I had.

Years later, I found out that Jamsie had used the money he from his news paper route to pay for Mr. Schlosberg cracked window. He only got one cent for every paper he delivered. He managed to pay the debt off just before he went to fight in World War II.Since that day, I have never touch the gun, a BB gun, a water gun, a real gun or any other type.

1. Choose the opposite word of ' later ' from the following : 1
   a) Letter
   b) Earlier
   c) Last
2. " Strictly taboo" means _____ 1
   a) Illegal
   b) forbidden

3 The two expressions, which appeal to our senses, are listed below.Write beside each expression the sense it evokes:

a. The starry sky (touch/ sight)
b. Wiped my tears (touch /sight)

4. The two important events mentioned in the passage are: 1

a. The Great Depression and
b._____

5. In the end, James appears to be a _____ (wealthy / protective) 1

6. Find the word, which describes the path of projectile. 1

7. Study the two expressions given below and identify which one is subjective and which one is objective

a. He must have battered for it. 2

b. this was in 1938, the Great Depression.

8. Which of the following techniques is issued by the writer, in the passage? 1

a. anticipation

b. flashback

c. both (a) and (b)

Read the following passage carefully and answer the questions set on it:

A' blog' is a discussion or information site published on the World Wide Web consisting of discrete entries, otherwise called "posts". The term "Weblog" was coined by Jorn Barger. The short form,"blog", was coined by Peter Merholz. It was Even Williams who used "blog" as both a noun and a verb ("to bog", meaning to "to edit one's weblog or to post to one's weblog) and devised the term "blogger" to refer to a person who blogs.

Until 2009 blogs were usually the work of a single individual, occasionally of a small group, and often were themed on a single subject. More recently "multi-author blogs" (MABs) have developed, with posts written by large numbers of authors and professionally edited. MABs from newspapers, other media outlets, universities, think tanks, interest groups and similar institutions account for an increasing proportion of blog traffic.

The emergence and growth of blogs in the late 1990s coincided with the advent of web publishing tools which made web publication easy for even non-technical users.

Although not a must, most good quality blogs are interactive, allowing visitors to leave comments and even a message. In that sense , blogging can be seen as a form of social networking. Indeed, bloggers not only produce content to post on their blogs but also build social relations with their readers and other bloggers.

In education blogs can be used as instructional resources. These blogs are referred to as 'Edublog'. A typical combines text , images, and links to other blogs., Web pages and media related to its topic, The ability of readers to leave comments in an inter active format is an important part of many blogs. Most blogs are primarily textual, although some focus on are (art blogs) , photographs (photoblog), **videos (video blogs or** "vlogs"), music (MP3 blogs), and audio (podcasts),.Migro-blogging is another type of blogging, featuring very short posts.

There are many different types of blogs , differing not only in the type of content, but also in the way that content is delivered or written, like personal blogs, Corporate and Organizational blogs, Health blogs, Travel blogs , Gardening blogs, House blogs, Fashion blogs , Music blogs etc. Blogs are highly popular because of their utility but it goes without saying that they must be used with great responsibility.

1) Choose the opposite word of 'occasionally from the following:
   a) Usually b) eventually
2) ' Discrete entries' means _____
   a) Distinct entries b)disturbing entries
3) Even non- technical users can post on blogs because of _____
4) Photoblogs carry photos, while micro – blogs carry
   a) short posts b) Micro photos

5) Edublogs usually carry _____
6) Interactive blogs allow visitors to post_____ and_____ on the blog.
7) Bloggers not only produce content through blogs but _____
8) Blogs are popular because of their _____ but one should use them with_____

11. Write a paragraph of each about 80- 100 words using the hints given below: (5+ 5)

a) Narrate an unforgettable experience that you h ad when you went boating recently with the help of the hints given below :

- Arrangements made over the weekend
- Condition of the river and the weather
- Relief you felt after the experience
- Reaction of your parents when you returned

b) Describe the location of your college with the help of the following hints:
Bus stop- main road-foot-over bridge-parking lot-building – canteen – facilities available,

vii) Write a paragraph of each about 80 – 100 words using the hints below: (5 +5)

a) Narrate your picnic experience with the help of the hints given below:

- How the college planned the picnic
- The picnic spots you visited
- How you enjoyed the picnic?

c) Describe the park near your house by using the following hints:
Location of the park – greenery-morning walk –separate area for children –neatly maintained- timings – free entry

VIII) Make notes on the following passage by choosing either linear or a diagrammatic format:

Soil is the loose top layer of Earth's surface. Plants depend on soil. It holds them up. It provides them with food and water. Soil is made up of particles. These very small pieces mostly come from rocks broken down by weathering. Other soil particles come from rotting remains of plants and animals. The part of the soil that comes from living things is called organic matter.

Soil develops in layers. The top layer called top soil consists of humus. The next layer is called subsoil, which contains more rock particles than topsoil, and less humus. The third layer is called bed rock, which has many pieces of rock. There are many types of soil. Clay is a type of soil with very small particles that can hold a lot of water. Sand has much larger particles than clay. It feels rough.

VIII) b ;Make notes on the following passage by choosing either linear or a diagrammatic format:

5Waste generated by health care activities includes a broad range of materials, from used needles and syringes to soiled dressings, body parts, diagnostic samples, blood chemicals, pharmaceuticals, medical devices and radioactive materials.

Disposal of this waste is an environmental concern, as many medical wastes are classified as *infectious or bio-hazardous* and could potentially lead to the spread of infectious disease. Examples of infectious waste include blood, potentially contaminated "sharps" such as needles and scalpels, and identifiable body parts. Sharps include used needles, lancets, and other devices capable of penetrating skin.

Poor management of health care waste potentially exposes health care workers, waste handlers, patients and the community at large to infection, toxic effects and injuries, and risks polluting the environment. It is essential that all medical waste materials are segregated at the point of generation,

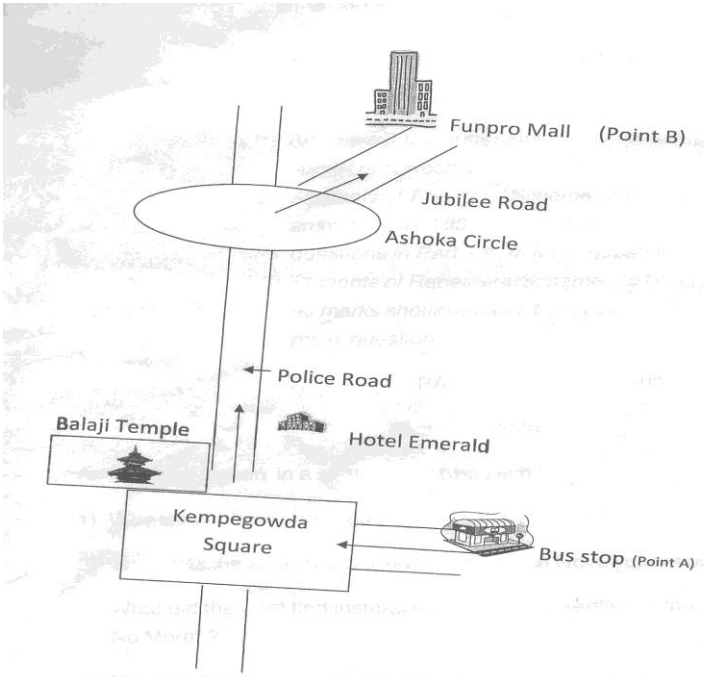
Appropriately treated and disposed of safely.

IX.) Do as directed:

a) Introduce Ms Vidya , your English teacher, to your mother.

b) Write a set of instructions you would give your mother on hoe to draw money from ATM. 3.

c) Give directions to your sister on how to reach Funpro mall _ (Point B) FROM THE BUS STOP (Point A). (FIVE OR SIX sentences).

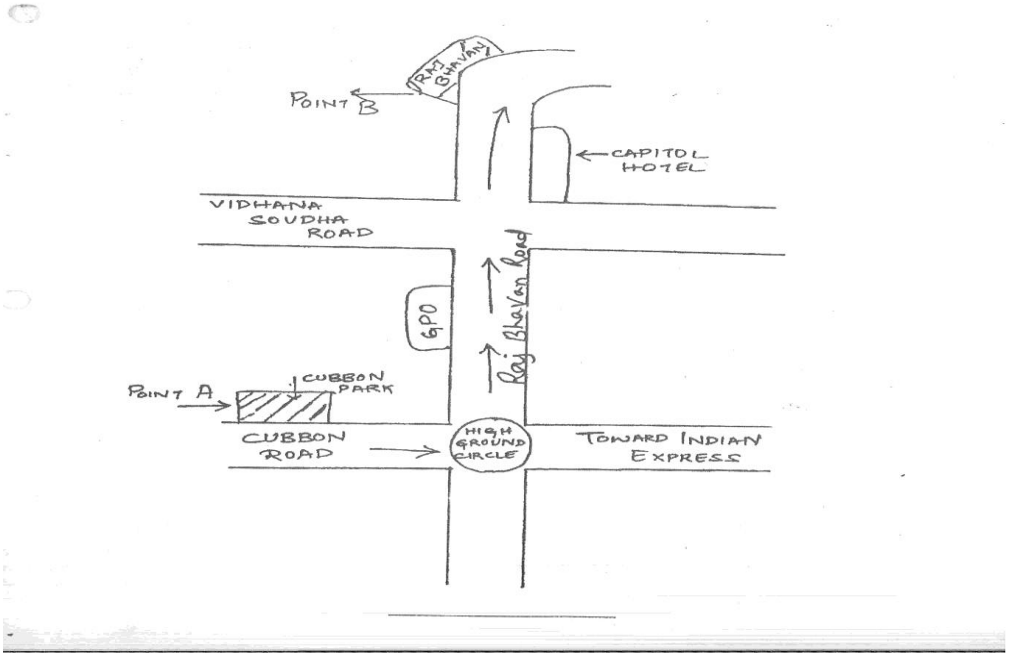


IX. Do as directed :

a) Introduce Rakesh, the cricket captain of your college team, to your father.

b) Write a set of instructions you would give to your friend on how to get a library card. (five or six sentences).

c) Give directions to your friend on how to go from Cubbon Park (Point A) to Raj Bhavan (Point B).



SS – 061

Semester B.Sc./B.C.A./B.Sc. (F.A.D.) Examination, November/December 2018
(Freshers) (CBCS) (2018-19 and Onwards)
New Text
ENGLISH
Language English – I

Time : 3 Hours Max. Marks : 70

Instructions *: 1) Answer **all** the questions.*
*2) Write the question numbers **correctly**.*

PART – A

(Literary Component – 40 Marks)

I. Answer **any five** in two or three sentences : **(5×2=10)**

1) Mention any two resolutions the poet makes for the New Year.
2) When did the father find moments of tranquillity in the *Sonnet* ?
3) Why does the author suffer at night in *The Wolf* ?
4) Why was Mr. Datoo given a tumultuous welcome ?
5) The narrator's family had _____ for lunch every Sunday.
   i) garri ii) soup
   iii) boiled eggs iv) rice and stew
6) Why did people wait for Jainulabdeen outside the mosque ?
7) What has been denied to women from exhibiting their natural capacity according to Raja Ram Mohan Roy ?
8) Steve Jobs was really happy to drop out of the college he naively chose. True/False.

II. Answer **any four** in about **80-100** words : **(5×4=20)**

1) What are the decisive resolutions taken by the poet in the new year ?
2) What is the son's perspective about war in the poem Sonnet ?
3) How does the author react on gaining freedom in *The Wolf* ?

4) Why does the narrator say that garri is important for her people ?

5) Write a note on Kalam's stint at Schwartz High School.

6) Comment on the female firmness of mind according to Raja Ram Mohan Roy.

7) Describe the Steve Jobs story of love and loss.

III. Answer **any one** in about a page : **(1×10=10)**

1) "*Leaving* is a story about family relations and kinship". Elaborate.

2) The author of *Real Food* seems to suggest that food habits signify one's sense of belonging and identity. Discuss.

3) Comment on the title "Stay Hungry, Stay Foolish".

PART – B

(Language Component – 30 Marks)

IV. Fill in the blanks with words as directed in the brackets : **5**

1) Western Ghats is a _____ place for trekking. (beauty/beautiful)

2) Trekkers enjoy _____ these lush green mountain. (watching/watchful)

3) They often _____ in the soft flowing streams. (played/playful)

4) It is the best place _____ unwinding the mind. (of/for)

5) Once trekked in these mountains one would like to trek there _____. (regularity/regularly)

V. 1) Combine these sentences by using any of the following :

(who, when, that, or which)

a) I purchased a car. It is expensive.

2) Fill in the blank using the right form of the verb : **1**

b) *Crime and Punishment* _____ (is/are) a great novel by Dostoevsky.

3) Fill in the blank using the right form : **1**

c) England _____ the cricket match. (lost/lose)

4) Correct the sentence : **1**

d) The program begins on 10 am.

5) Fill in the blank choosing the right option : **1**

e) That is an attendance register. Keep it _____. (hear, here, their)

VI. Read the following passage and answer the questions set on it : 5

The concept of creative society refers to the phase of development of a society in which a large number of potential contradictions become articulate and active. This is most evident when the oppressed social groups get politically mobilized and demand their rights. The upsurge of peasants and tribes, the movements for regional autonomy and self-determination, the environmental movements and the women's movements in the developing countries are signs of emergence of creative society in contemporary times. The forms of social movements and their intensity may vary from country to country and place to place within a country, but the very presence of the movements for social transformations in various spheres of a society indicates the emergence of a creative society in a country.

1) Define creative society.
2) What does the oppressed social groups do in creative society ?
3) The meaning of upsurge is
   a) Rise
   b) Fall
   c) Stabilized
4) According to the passage what are the manifestations of social movements ?
   a) Being Aggressive
   b) Involvement of the whole society
   c) Quest for social equality and individual freedom
   d) None of the above
5) The form and intensity of the social movements are the same. True/False

VII. Write a paragraph using the topic sentence and the hints given : 5

Topic Sentence : Gender discrimination is rampant in India.

Hints : Female Infanticide, denial of education and property rights, lack of opportunities unhealthy male-female ratio, preferential treatment of men.

VIII. Write a letter of complaint : 10

You are a resident of Gandhinagar. In recent days the stray dog menace has caused severe problems to the residents of the area. Write a letter to the local municipal authorities seeking a quick remedy.

FIBER& YARN SCIENCE

{THEORY & PRACTICAL}

FIBRE AND YARN SCIENCE (103 A)

THEORY SYLLBUS

The total number of hours is 48 hours

The number of theory hours per week is 4 hours

Unit 1 4hrs

Introduction to textile fibers-Definition, Sources, Classification and properties of textile fibers

Unit 2 6hrs

Cellulose fibers-Cotton, flax, kapok, hemp, ramie- Properties and end uses, Protein fibers- Silk, Wool – Properties and end uses

Unit 3 6hrs

Regenerated cellulose fibers- Viscose Rayon, Acetate Rayon, Tencel, Modal, Bamboo, Lyocel – production source, properties and end uses

Unit 4 6hrs

Synthetic fibers-Nylon, polyester, acrylic and modacrylic- properties and end uses, Polyethylene, polypropylene, olefin, Elastomeric fibers (spandex and lycra)- End uses.

Unit 5 10hrs

Yarn manufacturing process for short staple fibers, Spinning Process: - Ring and open end yarn spinning. Flowchart for manufacturing carded, combed yarn and folded yarn, Difference between Rotor, Ring spinning and Air jet spinning

Unit 6 8 hrs

Polymers - Polymerization, degree of Polymerization, different types of polymers- addition and condensation, orientation and crystallinity, characteristics of fiber forming polymers, general physical and chemical properties of fibers.

Unit 7 6 hrs

Texturisation - types (simplex and complex yarns) and uses, Blends- types, uses of blended yarns.

Unit 8 2 hrs

Sewing threads- types and properties, fancy yarns-types and uses

References

1. Gohl, E.P.G. Velensky, L.D, ―Textile Science‖ CBS Publishers and Distributors,

2003
2. Hall, A.J. ―The standard hand book of Textiles‖, Wood head Publishing 8th edition, 2004
3. Vidyasagar, P.V. ―Hand Book of Textiles‖, A. Mittal Publications, 2005
4. Sara J. Kadolph, ―Textiles‖, Prentice Hall, 10th edition 2007
5. Gordon Cook, J ―Hand Book of Textile Fibres‖, Vol- II Man Made Fibers, Wood Head Publishing.
6. Bernard P. Corbman, ―Textiles Fiber to Fabric‖ McGrawhill Publications, 6th, Edition 1983
7. Gilbert R. Merrill, ―Cotton Opening and Picking‖ Universal Publishing Corporation, 1999
8. Gilbert R. Merrill, ―Cotton Combing‖ Universal Publishing Corporation, 1999

Department of Fashion Apparel and Design

Class Plan –FIBRE AND YARN SCIENCE - THEORY

COURSE/ SEM – I

No. Of hours required as per University: 48

No. Of hours planned by faculty: 48

Subject teacher : Praveen Kumar .K

Sl. No	Unit	TOPICS	No. Of Hours	Total No. Of Classes	Learning Outcome
1	1	Introduction to textile fibers	1	4	Basic knowledge of fibre and its sources
2		Introduction to textile fibers	1		
3		Classification and properties of textile fibers	1		
4		Classification and properties of textile fibers	1		
5	2	Cellulosic fibers properties & end uses	1	6	Knowledge on Cellulosic fibres and its properties
6		Cellulosic fibers properties & end uses	1		
7		Cellulosic fibers properties & end uses	1		
8		Protein fibers properties & end uses	1		
9		Protein fibers properties & end uses	1		
10		**Unit Test**	1		
11	3	Regenerated cellulosic fibers properties & end uses	1	6	Knowledge on regeneration process of cellulose and their properties
12		Regenerated cellulosic fibers properties & end uses	1		
13		Regenerated cellulosic fibers properties & end uses	1		
14		Regenerated cellulosic fibers properties & end uses	1		
15		Regenerated cellulosic fibers properties & end uses	1		
16		Regenerated cellulosic fibers properties & end uses	1		
17	4	Synthetic fibers – Nylon, polyester properties & end uses	1	6	Synthetic fibres properties, its limitations and salient features

18		Synthetic fibers – Nylon, polyester properties & end uses	1		
19		Acrylic and modacrylic properties & end uses	1		
20		Acrylic and modacrylic properties & end uses	1		
21		Elastomeric fibers (spandex & lycra) end uses	1		
22		**Unit Test**	1		
23	5	Yarn manufacturing process for short staple fibers	1	10	Knowledge on conversion of fibres to yarn
24		Yarn manufacturing process for short staple fibers	1		
25		Spinning process – Ring and open end yarn spinning	1		
26		Spinning process – Ring and open end yarn spinning	1		
27		Unit Test-2	1		
28		Spinning process – Ring and open end yarn spinning	1		
29		Flow chart for manufacturing carded, combed yarn and folded yarn	1		
30		Flow chart for manufacturing carded, combed yarn and folded yarn	1		
31		Difference between Rotor, Ring spinning and Air jet spinning	1		
32		Difference between Rotor, Ring spinning and Air jet spinning	1		
33	8	Polymers – polymerization, degree of polymerization	1	8	Chemical reactions that takes place in fibre forming polymer
34		Polymers – polymerization, degree of polymerization	1		
35		Different types of polymers – addition and condensation, orientation and crystallinity	1		
36		Different types of polymers – addition and condensation, orientation and crystallinity	1		
37		Characteristics of fibers forming polymers, general physical and chemical properties of fibers	1		
38		Characteristics of fibers forming	1		

		polymers, general physical and chemical properties of fibers			
39		Characteristics of fibers forming polymers, general physical and chemical properties of fibers	1		
40		Characteristics of fibers forming polymers, general physical and chemical properties of fibers	1		
41	7	Texturisation – types (simplex and complex yarns) and uses	1	6	Different methods of Texturisation
42		Texturisation – types (simplex and complex yarns) and uses	1		
43		Texturisation – types (simplex and complex yarns) and uses	1		
44		Texturisation – types (simplex and complex yarns) and uses	1		
45		Texturisation – types (simplex and complex yarns) and uses	1		
46		Texturisation – types (simplex and complex yarns) and uses	1		
47	8	Sewing threads – types and properties	1	2	Sewing thread properties and salient features
48		Fancy yarns – types and uses	1		
TOTAL			**48**	**48**	

ONLINE CERTIFICATION COURSES

Sl.No	Website link/topic
1	https://www.udemy.com

FIBRE AND YARN SCIENCE (FAD103A)

QUESTION BANK

Unit 1 - Introduction to textile fibers-Definition, Sources, Classification and properties of textile fibers

QUESTIONS CARRYING TWO MARK

1. Define fiber.
2. What do you mean by Natural fiber?
3. What is regenerated fiber?
4. What is a synthetic fiber?
5. Name any four natural fibers.
6. Name any two vegetable fibers.
7. Name the seed fibers.
8. What staple fibers? Give example.
9. What do you mean by cellulosic fiber?
10. Define matured fibers.
11. Mention the density of cotton.

QUESTIONS CARRYING FIVE MARK

1. Classify the fibers based on source and origin.

QUESTIONS CARRYING EIGHT MARK

1. Explain general properties of textile fibers.

Unit 2 - Cellulose fibers-Cotton, flax, kapok, hemp, ramie- Properties and end uses, Protein fibers- Silk, Wool – Properties and end uses

QUESTIONS CARRYING TWO MARK

1. What is Cellulose?
2. Give examples for protein fibre.
3. Draw cross sectional view of silk.
4. State two end uses of flax.
5. Name the solvent that dissolves cotton.
6. What is retting?
7. Name the types of retting.
8. Give examples for Bast fibre,

QUESTIONS CARRYING FIVE MARK

1. Mention the types of silk and its uses.
2. What is reeling and throwing?
3. Write the end uses of Hemp, Polyester and Polyethylene fibers
4. Write properties of wool.
5. Write properties of cotton.
6. Write a note on Kapok fiber.

QUESTIONS CARRYING EIGHT MARK

1. Explain the action of acid, alkali and heat on cotton.
2. Write the physical and chemical characteristics of polyester, wool, silk and viscose rayon.
3. Compare wool and silk fiber properties.
4. Distinguish between cellulose and protein fibres.

Unit 3 - Regenerated cellulose fibers- Viscose Rayon, Acetate Rayon, Tinsel, Modal, Bamboo, Lyocel – production source, properties and end uses

QUESTIONS CARRYING TWO MARK

1. Give examples for regenerated fibres.
2. Mention two properties of viscose fibre.
3. Mention two end uses of lyocell fibre.
4. What are regenerated fibres?

QUESTIONS CARRYING FIVE MARK

1. Explain the physical and chemical properties of Viscose rayon.
2. Mention the properties and end uses of tencel wool, and polyester fiber.

QUESTIONS CARRYING EIGHT MARK

1. Illustrate the cross sectional and longitudinal view of cotton and acetate rayon fibers.
2. Explain the physical and chemical properties of Viscose rayon & Bamboo fibre.

Unit 4 - Synthetic fibers-Nylon, polyester, acrylic and mod acrylic- properties and end uses, Polyethylene, polypropylene, olefin, Elastomeric fibers (spandex and lycra)- End uses.

QUESTIONS CARRYING TWO MARK

1. What are synthetic fibers?
2. Name the solvent that dissolves Polyester.

3. Write the uses of polyethylene.
4. Distinguish between Acrylic and Mod-acrylic fiber.
5. Name the solvent that dissolves Nylon.
6. What are elastomeric fibers?
7. Define spandex and lycra.
8. Define Olefins.
9. Write two end uses of spandex and lycra.
10. Mention two elastomeric polymers.
11. State the prime characteristic of Spandex.

QUESTIONS CARRYING FIVE MARK

1. Mention the end uses of acrylic and modacrylis.
2. Draw the longitudinal and cross sectional view of polyester and nylon fibers.
3. Write the uses of Polyester and Polyethylene fibers?
4. What are elastomeric fibers? Write their uses.
5. Explain the advantages of manmade fibers over natural fibers.

QUESTIONS CARRYING EIGHT MARK

1. Write the physical and chemical properties of Nylon
2. Write the physical and chemical properties of Polyester.
3. Discuss solubility test for natural and synthetic fibers

Unit 5 - Yarn manufacturing process for short staple fibers, Spinning Process:- Ring and open end Yarn spinning. Flowchart for manufacturing carded, combed yarn and folded yarn, Difference Between Rotor, Ring spinning and Air jet spinning

QUESTIONS CARRYING TWO MARK

1. What is Ginning?
2. Define fiber and yarn.
3. Define carding.
4. Define combing.
5. Define drafting.
6. Define rotor spinning.
7. Define ring spinning.
8. Define worsted yarns.
9. What do you mean by spinning?
10. What are carded yarns?
11. What are combed yarns?
12. Give the spinning sequence for carded yarns.
13. Write any two s between carding and combing process.
14. State a difference between woolen and worsted yarn.

15. Mention the objectives of spinning.
16. What are the objectives of blow room?
17. Write the objectives of opening, cleaning and blending.
18. Mention the objectives of carding and combing.

QUESTIONS CARRYING FIVE MARK

1. Write flowchart for manufacturing carded yarn.
2. Write flowchart for manufacturing combed yarn.
3. Differentiate between woolen and worsted yarns.
4. Compare ring spun yarn and rotor spun yarn.
5. Explain air-jet spinning.
6. State the importance of drafting rollers in spinning.

QUESTIONS CARRYING EIGHT MARK

1. Explain the sequence of process for spinning of wool.
2. With a neat sketch explain carding process.
3. With a neat sketch explain combing process.
4. Explain ginning, blow-room and draw-frame process in detail.

Unit 6 - Polymers - Polymerization, degree of Polymerization, different types of polymers- addition and condensation, orientation and crystallinity, characteristics of fiber forming polymers, General physical and chemical properties of fibers.

QUESTIONS CARRYING TWO MARK

1. Explain polymerization.
2. Define Degree of polymerization.
3. What are elastomeric polymers?
4. Define crystalline and amorphous region.
5. Define orientation
6. What are polymers?
7. Define addition polymerization.
8. Define condensation polymerization.
9. What are Thermoplastic fibers?
10. What are Thermo-setting fibers?
11. What are alternating polymer? Give example.
12. What are hydrophilic fibers?
13. What are hydrophobic fibers?
14. What is Monomer?

QUESTIONS CARRYING FIVE MARK

1. Distinguish between crystalline and amorphous region.
2. Distinguish between addition polymerization and condensation polymerization with examples.
3. Explain the properties of fibre forming polymers.
4. Explain polymerization, Degree of polymerization.
5. Explain Homo polymers, Block polymers and Graft polymers.

QUESTIONS CARRYING EIGHT MARK

1. Discuss in general the physical and chemical properties of synthetic fibers.
2. Explain addition polymerization. Give its end products.
3. Explain condensation polymerization. Give its end products.

Unit 7 - Texturisation - types (simplex and complex yarns) and uses, Blends- types, uses of blended Yarns.

Unit 8 - Sewing threads- types and properties, fancy yarns-types and uses

QUESTIONS CARRYING TWO MARK

1. What are novelty yarns?
2. What do you mean by tenacity?
3. What does the term two ply refers to?
4. What are Dupions?
5. What is Abrasion resistance?
6. What are stretch yarns?
7. What is blending?
8. What is Texturisation?
9. Name any two commercial blends.
10. Define Blends.
11. Write any two properties of sewing threads.
12. Define Denier.
13. Define Tex.
14. Define count.
15. Define twist.
16. Write the diagram of S & Z twist yarn.
17. Expand TPI.

QUESTIONS CARRYING FIVE MARK

1. Mention objectives of blending, give an example for blending.
2. State the importance of texturisation process.
3. Differentiate blending and mixing.
4. State the advantages of texturisation.
5. **QUESTIONS CARRYING EIGHT MARK**

1. What is Texturisation? Mention the types and characteristics of textured yarns.
2. Discuss the characteristic of bulk and stretch yarn.
3. Explain types and properties of sewing threads.
4. Differentiate between the flat yarns and texturized polyester yarn.
5. Illustrate any five types of novelty yarns and mention its end use.

FIBRE AND YARN SCIENCE (FAD 103 B)

PRACTICAL SYLLBUS

The total number of hours is 48hours

The number of theory hours per week is 4 hours

Unit 1 6hrs

Identification of different types of fibers by physical & chemical methods- cotton, Viscose, Silk, Wool, polyester, Nylon fibers

Unit 2 6hrs

Geometrical properties of yarn – Twist, Count of the yarns using different yarn numberingsystem

Unit 3 2 hrs

Identification of yarns by physical method– spun & filament yarns, ply & novelty yarns

Unit 4 2 hrs

Identification of varieties in Sewing threads &study of their properties like count, structure and twist.

Department of Fashion Apparel and Design

Class Plan –FIBRE AND YARN SCIENCE - PRACTICAL

COURSE/ SEM – I

No. Of hours required as per University: 48

No. Of hours planned by faculty: 48

Subject teacher : Praveen Kumar .K

Sl. No	Unit	TOPICS	No. Of Hours	Total No. Of Classes	Learning Outcome
1	1	Identification of different types of fibers by physical method	1	18	Identification of different fibres by simple test methods.
2		Identification of different types of fibers by physical method	1		
3		Identification of different types of fibers by physical method	1		
4		Identification of different types of fibers by physical method	1		
5		Identification of different types of fibers by physical method	1		
6		Identification of different types of fibers by physical method	1		
7		Identification of different types of fibers by physical method	1		
8		Identification of different types of fibers by physical method	1		
9		Identification of different types of fibers by physical method	1		
10		Identification of different types of fibers by chemical method	1		
11		Identification of different types of fibers by chemical method	1		
12		Identification of different types of fibers by chemical method	1		
13		Identification of different types of fibers by chemical method	1		
14		Identification of different types of fibers by chemical method	1		
15		Identification of different types of fibers by chemical method	1		
16		Identification of different types of fibers by chemical method	1		
17		Identification of different types of	1		

		fibers by chemical method			
18		**Unit Test**	1		
19	2	Geometrical properties of yarn- Twist	1	18	Geometrical properties and methods to find out the properties.
20		Geometrical properties of yarn- Twist	1		
21		Geometrical properties of yarn- Twist	1		
22		Geometrical properties of yarn- Twist	1		
23		Geometrical properties of yarn- Twist	1		
24		Geometrical properties of yarn- Twist	1		
25		Geometrical properties of yarn- Twist	1		
26		Geometrical properties of yarn- Twist	1		
27		Geometrical properties of yarn- Twist	1		
28		Geometrical properties - yarn count	1		
29		Geometrical properties - yarn count	1		
30		Geometrical properties - yarn count	1		
31		Geometrical properties - yarn count	1		
32		Geometrical properties - yarn count	1		
33		Geometrical properties - yarn count	1		
34		Geometrical properties - yarn count	1		
35		Geometrical properties - yarn count	1		
36		Geometrical properties - yarn count	1		
37	3	Identification of yarns by physical method	1	6	Physical identification of fibres and its reactions during testing.
38		Identification of yarns by physical method	1		
39		**Unit Test**	1		
40		Identification of yarns by physical method	1		
41		Identification of yarns by physical method	1		
42		Identification of yarns by physical method	1		

43	4	Identification of varieties in sewing threads	1	6	Identification of properties of sewing threads
44		Identification of varieties in sewing threads	1		
45		Identification of varieties in sewing threads	1		
46		Study of their properties like count, structure and twist.	1		
47		Study of their properties like count, structure and twist.	1		
48		Study of their properties like count, structure and twist.	1		
TOTAL			**48**	**48**	

ONLINE CERTIFICATION COURSES

Sl.No	Website link/topic
1	https://www.udemy.com

FIBER AND YARN SCIENCE (FAD103 B)

PRACTICAL QUESTION PAPER

Time: 3HourMax Marks-30

1. Identification of different types of fibers through microscope/ burning/ solubility of Cotton, Viscose, Silk, Wool, Polyester, Nylon Fibers 10 marks
2. Identification of yarn by physical method and sketch the twist of given yarn and identify the count of given yarn. 10 marks
3. Viva voce 5 marks
4. Record 10 marks

SN – 428

I Semester B.Sc. (FAD) Examination, November/December 2017
(CBCS) (Semester Scheme) (2014 – 15 & Onwards)
(F+R)
Fashion and Apparel Design
14FAD103 : FIBRE AND YARN SCIENCE

Time : 3 Hours Max. Marks : 70

Instructions : *1) **All** Sections are **compulsory**.*
*2) Write the question numbers **legibly**.*

SECTION – A

I. Answer **any 10** of the following : **(10×2=20)**

1) Define Tenacity.
2) State the uses of Bamboo fibre.
3) Mention the physical properties of cotton fibre.
4) What are the uses of Acrylic fibres ?
5) Differentiate spun yarn and filament yarn.
6) Mention the mineral fibres.
7) Draw the L.S. and C.S. for silk.
8) Define Denier.
9) Define polymer.
10) What is corded yarn ?
11) Define Blend.
12) What is fancy yarn ?

P.T.O.

SN – 428

SECTION – B

II. Answer **any 5** of the following : **(5x4=20)**

13) How are fibres classified ?

14) Describe the action of Acid and Alkali on wool fibre.

15) Differentiate between ring and rotor spinning process.

16) Explain the characteristics of fibre forming polymers.

17) Describe false twist texturisation process.

18) Draw any four fancy yarns.

SECTION – C

III. Answer **any 5** of the following : **(5x6=30)**

19) Explain cotton spinning system with the help of flow chart.

20) Explain different types of yarn.

21) Write difference between orientation and crystallinity with suitable illustration.

22) Explain different types of copolymer.

23) How woollen yarn is produced with the help of flow chart ?

24) Explain the physical properties of Nylon fibre.

25) How to identify synthetic fibres ?

26) State the properties and end uses of Tencel fibres.

SS – 431

I Semester B.Sc. (FAD) Examination, Nov./Dec. 2018
(CBCS) (Semester Scheme)
(F+R)
(2014-2015 and Onwards)
FASHION AND APPAREL DESIGN
14 FAD 103 : Fibre and Yarn Science

Time : 3 Hours Max. Marks : 70

Instruction : *All Sections are* ***compulsory.***

SECTION – A

I. Answer **any 10** of the following : **(10×2=20)**

1) Define crimp.
2) Mention the sources from which natural fibres are produced.
3) What is mercerisation ?
4) Draw the structure of C.S. of Nylon fibre.
5) a) Modal fibre is produced from _____ wood.
   b) Bamboo fibre is produced from _____ wood.
6) What is spinning ?
7) What is open end spinning ?
8) What is addition polymerisation ?
9) List any 4 common blends available in the market.
10) What is novelty yarn ?
11) Mention any two uses of polyethylene fibre.
12) What is glass fibre ?

SECTION – B

II. Answer **any five** of the following : **(5×4=20)**

13) Mention the physical properties of cotton fibre.
14) How stem fibres are processed ?

P.T.O.

SS – 431

15) Why Rayon fibre is called as an artificial silk ?
16) State the properties and uses of Elastomeric fibre.
17) Mention the different types of spinning.
18) Describe the important properties of sewing thread.
19) Differentiate fibre and yarn.

SECTION – C

III. Answer **any five** of the following : **(5×6=30)**

20) Explain the physical properties of Nylon fibre.
21) Mention the types and uses of protein fibre.
22) Explain how viscose rayon fibre is produced ?
23) Explain the properties and uses of polyester fibre.
24) Explain ring spinning process.
25) Explain the characteristics of fibre forming polymer.
26) Classify fibres based on source and origin.
27) Explain any three types of Novelty Yarns.

No. of Printed Pages : 2

GN-308

100181

I Semester B.Sc. (FAD) Examination, December - 2019
(CBCS) (F+R) (2014-15 and Onwards)
FASHION AND APPAREL DESIGN
14 FAD 103 Fibre And Yarn Science

Time : 3 Hours Max. Marks : 70

Instruction : All sections are **compulsory**.

SECTION - A

I. Answer **any 10** of the following : **10x2=20**

1. Define textile fibre. Name one animal fibre.
2. Name any two fibres that finds it application in medical field.
3. Sketch the longitudinal and cross-sectional microscopic view of cotton fibre.
4. Name the monomers used in the production of polyester.
5. When is cotton fibre subjected to combing process ?
6. Define Degree of Polymerisation.
7. Which fibres are known as 'golden fibre and artificial silk ?
8. List any two applications of polypropylene fibres.
9. Give any two examples of folded yarns.
10. What are elastomeric fibres ? Give examples.
11. Mention any two leaf fibres.
12. List any two seed fibres.

T. JOHN COLLEGE LIBRARY BANGALORE

SECTION - B

II. Answer **any five** of the following : **5x4=20**

13. Explain the application of Hemp and Ramic fibres.
14. Explain the properties of tencel fibres and list its application.
15. Sketch any four types of novelty yarns and give one application of the same.
16. Differentiate between amorphous and crystalline orientation in fibres with respect to its characteristics.
17. What is texturization of yarns ? Explain the objectives of texturization.
18. Discuss the application of Bamboo fibres.
19. Draw the flow chart of sewing thread manufacturing process.

SECTION - C

III. Answer **any five** of the following : **5x6=30**

20. Classify fibres based on source and origin.

21. Explain properties and applications of wool and silk fiber.

22. Explain the properties and application of polyethylene fibres.

23. Write a detailed note on linen fiber.

24. Discuss the characteristics and application of any two types of commercial blends.

25. Discuss the essential properties of sewing thread.

26. Sketch the time diagram of open end spinning and explain the process of yarn formation.

-oOo-

ELEMENTS OF FASHION AND DESIGN {THEORY & PRACTICAL}

GAR

ELEMENTS OF DESIGN AND FASHION (FAD 104A)

THEORY SYLLABUS

The total number of hours is 48 hours
The number of theory hours per week is 3 hours

Unit 1 6 hrs

Art Media and Application – pencils, color pencils, oil pastels, and watercolor, poster colors, Acrylic colors, fabric colors, markers, collage, frottage, montage.

Unit 2 8 Hrs

Elements of Fashion process: Fashion origin, evolution- with examples from different eras till French revolution, Fashion cycles, Fashion theories and terminologies

Unit 3 4 hrs

Basic sketching techniques and sketching from life, Perspective and its uses, Grid technique of rendering

Unit 4 4 hrs

Introduction to Anatomy, study of bone and muscular structure, proportions of males, females and children. Study of face, torso, legs and arms

Unit 5 12hrs

Elements of Design (point, line, form, shape, space, size, texture and color), Principles of Design – (harmony, proportion, balance, rhythm and emphasis) Color Theory (Prang, Munsellcolour system, Pantone Colors, color wheel, color value scale, grey scale, color schemes, color psychology, color and emotions, Indian approach to color),.

Unit 6 10 Hrs

Elements of Fashion illustration: Introduction to Fashion illustration-History, importance, artists and illustrators of national and international repute.

Unit 7 4 hrs

Introduction to Fashion Art, Proportion and the Fashion Figure- 8 head, 10 head, 12 head theory of fashion drawing

References:

1. Bride M Whelan, " Color Harmony'" Rockfort Publishers, 1992
2. Chijiwa, Hideaki, " Color Harmony", Rockfort publishers, USA, 10111 edition, I 1992
3. Piper, David, ―The Joy of Art‖, – Mitchell Beazley Publishers, 1984.
4. Gold Stein and Gold Stein, "Art in everyday life", Calcutta- IBH Publishing Co., 1972
5. Stanyer, Peter, ―The Complete Book of Drawing Techniques‖ – Arcturus Publishing Limited for Book Mart Limited 2003.
6. Stockton and James, " Designers Guide to Color", Chronicle Books, San Francisco, 1984
7. Tate Sharon Lee, "Inside Fashion Design", Francisco Canfield Press, 1977
8. Tomory, Edith, ―A History of Fine Arts in India and the West‖ – Orient Longman Publishers Reprinted 1999.

Department of Fashion Apparel and Design					
Class Plan –ELEMENTS OF FASHION & DESIGN – THEORY					
COURSE/ SEM - B.Sc FAD/I					
No. Of hours required as per University: 48					
No. Of hours planned by faculty: 48					
Subject Teacher : Deepali					
Sl. No	**Unit**	**TOPICS**	**No. Of Hours**	**Total No. Of Classes**	**Learning Outcome**
1	1	Art media Application – Pencil, Color pencils	1	6	Knowledge of using various Art media and the texture , visual and techniques
2		Art media Application – Oil Pastels, Water Color	1		
3		Art media Application – Poster Colors, Acrylic Colors	1		
4		Art media Application – Fabric Color, Markers	1		
5		Art media Application – College, Frottage, Montage	1		
6		Art media Application – College, Frottage, Montage	1		
7	2	Elements of Fashion process : Fashion Origins	1	7	Analyzing knowledge of Fashion and Terminologies
8		Elements of Fashion process : Fashion Origins	1		
9		Evolution- with examples from different eras till French Revolution	1		
10		Evolution- with examples from different eras till French Revolution	1		
11		Fashion Cycles	1		
12		Fashion Cycles	1		
13		Fashion Theories and Terminologies	1		
14		Unit Test -1	1	1	
15	3	Basic Sketching Techniques and Sketching from Life	1	4	Basic Knowledge to Sketch and Scaling various Sketches
16		Basic Sketching Techniques and Sketching from Life	1		
17		Perspective and its uses	1		
18		Grid Technique for Rendering	1		

19	4	Introduction to Anatomy,	1	4	Knowledge on Anatomy
20		Study of Bone and Muscular structure	1		
21		Proportions of Males, Females, and Children's	1		
22		Study of Face, Torso, Legs and Arms	1		
23	5	Elements of Design	1	11	Knowledge on Basic Designing with Color theory Techniques
24		Elements of Design	1		
25		Principles of Design	1		
26		Principles of Design	1		
27		Color Theory (Prang, Munsell Color System)	1		
28		Pantone Colors, and Color Wheel	1		
29		Color Value Scale, Grey Scale	1		
30		Color Value Scale, Grey Scale	1		
31		Color Schemes, Color Psychology	1		
32		Color and Emotions	1		
33		Indian approach to Color	1		
34		Unit Test -2	1	1	
35	6	Elements of Fashion Illustration	1	10	Knowledge on Fashion Illustration and Different Artists
36		Elements of Fashion Illustration	1		
37		Introduction of Fashion Illustration – History	1		
38		Introduction of Fashion Illustration – History	1		
39		Introduction of Fashion Illustration – History	1		
40		Introduction of Fashion Illustration – History	1		
41		Importance, Artists and Illustrators of National and International Repute	1		
42		Importance, Artists and Illustrators of National and International Repute	1		
43		Importance, Artists and Illustrators of National and International Repute	1		

44		Importance, Artists and Illustrators of National and International Repute	1		
45	7	Introduction to Fashion Art	1	3	Learning the Basic Techniques and the proportions of head theory
46		Proportion and the Fashion Figure – 8 Head, 10 Head, 12 Head Theory of Fashion Drawing	1		
47		Proportion and the Fashion Figure – 8 Head, 10 Head, 12 Head Theory of Fashion Drawing	1		
48		Revision	1	1	
Total			**48**	**448y**	

ELEMENTS OF DESIGN AND FASHION (FAD 104A)

Question Bank

UNIT 1 :Art Media and Application – pencils, color pencils, oil pastels, watercolor, poster colours, Acryliccolors, fabric colors, markers, collage, frottage, montage.

TWO MARKS QUESTIONS

1. What is art media?
2. Mention difference water color& poster colors.
3. What is montage?
4. What is frottage?
5. List out different art media.
6. What is scribbling?
7. Name any 2 drawing tools
8. Name any two types of painting techniques.

FIVE MARKS QUESTION

1. Explain the following –
   a) Color pencils b) acrylic colorsc) Montage
   d) Frottage e) markers
2. Explain briefly about dry & wet art Medias.
3. Explain art media.
4. Which is the best art media? Justify.

EIGHT MARKS QUESTION

1. Explain Art Media and Application.
2. Explain in detail different art Medias.
3. Explain briefly about sketching techniques with a neat sketch.

UNIT 2 : Elements of Fashion process: Fashion origin, evolution- with examples from different eras till French revolution, Fashion cycles, Fashion theories and terminologies

TWO MARKS QUESTIONS

1. Define fashion.
2. Define Haute Couture.
3. Define Prêt-a-porter.
4. Define Classic & trend.
5. Mention difference between fad & classic.
6. Mention different stages of fashion cycle.

7. What is style?
8. Boutique is a_____ word & name any one designer boutique.
9. Sketch a tubular silhouette.
10. What is culmination?
11. List out fashion theories with examples.

FIVE MARKS QUESTION

1. Explain the following –
   a) Fad, b) Punk style, c) classic, d) mass fashion, e) prêt-a porter,
2. Explain fashion cycle with diagram
3. Explain fashion theories.
4. What is retro fashion?
5. What is 'Bottom up' theory? Explain.
6. Explain mass dissemination theory with example.
7. Explain in brief the punk style.
8. Explain fashion origin.
9. Write a note on French revolution
10. Explain fashion during Victorian era.
11. Explain clothing of Egypt.
12. Draw a flow chart for 'fashion adoption' & explain.

EIGHT MARKS QUESTION

1. Explain the changes of fashion during French revolution..
2. Explain in detail fashion theories.
3. Explain clothing of Rome.
4. Explain in detail fashion during Victorian era.
5. Explain in detail fashion cycle.

UNIT 3 : Basic sketching techniques and sketching from life, Perspective and its uses, Grid technique of rendering

TWO MARKS QUESTIONS

1. What is sketching?
2. What is perspective?
3. What is grid technique?
4. Name any two drawing tools.
5. Sketch any one still life object drawing.

FIVE MARKS QUESTION

1. Explain the following –
   a) Perspective b) Grid technique
2. Explain grid technique of rendering with example.
3. Sketch any one still life object drawing.

EIGHT MARKS QUESTION

1. Explain in detail different sketching techniques with example.
2. Explain in detail perspective & its uses & grid technique of rendering.

UNIT 4 : Introduction to Anatomy, study of bone and muscular structure, proportions of Males, Females and children. Study of face, torso, legs and arms

TWO MARKS QUESTIONS

1. What is torso?
2. What is proportion?

FIVE MARKS QUESTION

1. Explain 8 head female figure.
2. Explain proportions of 8 head male figure.

EIGHT MARKS QUESTION

1. Explain 8 head female figure with diagram.
2. Explain proportion of children figure with diagram.

UNIT 5: Elements of Design (point, line, form, shape, space, size, texture and color), Principles of Design – (harmony, proportion, balance, rhythm and emphasis) Color Theory (Prang, Munsellcolour system, Pantone Colours, color wheel, color value scale, grey scale, color schemes, color psychology, color and emotions, Indian approach to color),.

TWO MARKS QUESTIONS

1. List elements of design.
2. List Principles of design.
3. List out any principles of design.
4. What is color?
5. Horizontal lines makes a person look taller. T/ F
6. What is the relation between elements of design & principles of design?
7. What is proportion?
8. What is texture? Mention any 2 textures.

9. What is positive & negative space?
10. Define Harmony
11. What is Golden rule?
12. Define balance.
13. Define emphasis.
14. Define line. Name 4 types of line.
15. Define silhouette & list the types.
16. Define polychromatic colors.
17. Define split complimentary colors.
18. Define achromatic colors.
19. What is radial rhythm?
20. ---------- is called a royal color.
21. Name primary colors& using the same sketch motif.
22. Define Monochromatic colors.
23. Mention dimensions of color.
24. What are Pantone colors?
25. What is color?
26. What are cool colors& warm colors?
27. What is color way? Mention any 2 types of color ways
28. List any two color schemes with examples.
29. What are tint, tone & shade?
30. Grey scale is an example of ---------- color scheme.

FIVE MARKS QUESTION

1. What are the ways to create emphasis in dress designing?
2. Write a note on principles of design.
3. Explain elements of design.
4. What is balance? Explain different types of balance with example.
5. What is emphasis? Explain in detail.
6. What is proportion? Explain in detail.
7. Explain tints & shades with a neat sketch using primary hue.
8. List dimensions of color& explain in detail.
9. Explain Pantone color in detail.
10. Explain Prang color in detail.
11. Write a short note on ‘color& emotions’.

EIGHT MARKS QUESTION

1. Explain in detail principles of design & illustration a women’s top combining 3 principles of design together.
2. Explain in detail elements of design.

3. Explain color harmony with examples.
4. Define silhouette & explain different types.
5. Explain elements of design in detail.
6. Explain color harmony with examples.
7. Different types of color schemes in detail.
8. Explain in detail color wheel.

UNIT 6: Elements of Fashion illustration: Introduction to Fashion illustration-History, importance, artists and illustrators of national and international repute.

TWO MARKS QUESTIONS

1. Name any two Nation & International artists.
2. Name any two Nation & International designers
3. Fashion figure is illustrated using 8 head figure. T/ F

FIVE MARKS QUESTION

1. Write about the importance of fashion illustration.
2. Illustrate 3 tools &equipment's in fashion illustration.
3. Explain types of illustration.

EIGHT MARKS QUESTION

1. Illustrate 5 tools &equipment's in fashion illustration.
2. Write a note on any one international fashion illustrator.
3. Write a note on history of fashion illustration.
4. Write a note on any one national fashion illustrator.
5. Write a short on 'Pablo Picasso' a famous international artist.

UNIT 7: Introduction to Fashion Art, Proportion and the Fashion Figure- 8 head, 10 head, 12 head theory of fashion drawing

1. What is fashion figure?
2. What is proportion?

FIVE MARKS QUESTION

1. Explain 10 head female figure.
2. Explain proportions of 8 head male figure.
3. Explain 12 head female figure.
4. Explain proportions of 12 head male figure.

EIGHT MARKS QUESTION

1. Explain 10 head female figure with diagram.

2. Explain proportion of 10 head male figure with diagram.
3. Explain 12 head female figure with diagram.
4. Explain proportion of 10 head male figure with diagram.

ELEMENTS OF DESIGN AND FASHION (FAD 104A)
PRATICAL SYLLABUS

The total number of hours is 48 hours
The number of theory hours per week is 3 hours

Unit 1 3

Introduction to art media and its applications, Line Sketching and Painting techniques,Object Drawing, Simple rendering of art materials using pencil and color pencils, Still lifeof simple objects and fabrics draped at a distance using wet media, Nature sketch of flowersand leaves using pastels and charcoal, Landscape painting using mix media, Perspectivedrawing – 1pt, 2pt, 3pt.

Unit 2 3

Elements of design: Point, Line, Shape, Space, Color and texture. Principles of design proportion, balance, rhythm, Emphasis and harmony.

Unit 3 4

Color Schemes and Free hand drawing and Design, Grey scale, color value scale (10 values), Color wheel, color scheme- primary, secondary, tertiary, color scheme monochromatic, achromatic, complementary, double split ,analogues using natural/geometric/ abstract/ stylized/conventional motifs, Tints, Shades, cool & warm color.

Unit 4 3

Fashion Illustration basics, simple blocking and fleshing of the Fashion figure. 8 head, 10 head, 12 head figures in simple standing poses.

Unit 5 3

Fabric rendering: Learning to simulate textures of various fabrics- Cotton, silk, fur, denim, print, georgette, chiffon, knitted, crochet, lace, embroidered.

Department of Fashion Apparel and Design					
Class Plan –ELEMENTS OF FASHION & DESIGN – PRACTICAL					
COURSE/ SEM – I					
No. Of hours required as per University: 48					
No. Of hours planned by faculty: 48					
Subject Teacher : Sharleen Mathew					
Sl. No	**Unit**	**TOPICS**	**No. Of Hours**	**Total No. Of Classes**	**Learning Outcome**
1	1	Introduction to Art Media and its Application	1	9	Knowledge on Basic Sketching with Different Media and Still Life Sketching
2		Line Sketching and Painting Techniques	1		
3		Line Sketching and Painting Techniques	1		
4		Object Drawing , Simple Rendering of Art Materials using Pencil and Color Pencils	1		
5		Object Drawing , Simple Rendering of Art Materials using Pencil and Color Pencils	1		
6		Object Drawing , Simple Rendering of Art Materials using Pencil and Color Pencils	1		
7		Still life of Simple Objects and Fabrics Draped	1		
8		Perspective Drawing	1		
9		Perspective Drawing	1		
10	2	Elements of Design	1	9	Knowledge Design Techniques
11		Elements of Design	1		
12		Elements of Design	1		
13		Elements of Design	1		
14		Elements of Design	1		
15		Principal of Design	1		
16		Principal of Design	1		
17		Principal of Design	1		
18		Principal of Design	1		

19	3	Color Schemes and Free Hand Drawing and Design	1	12	Learning Color Theories and different techniques of Shade Variations
20		Color Schemes and Free Hand Drawing and Design	1		
21		Color Schemes and Free Hand Drawing and Design	1		
22		Grey Scale, Color Value Scale (10 values), Color Wheel	1		
23		Grey Scale, Color Value Scale (10 values), Color Wheel	1		
24		Color scheme – Primary , Secondary, Tertiary , Color Scheme- Monochromatic , Achromatic, Complementary, double Split	1		
25		Color scheme – Primary , Secondary, Tertiary , Color Scheme- Monochromatic , Achromatic, Complementary, double Split	1		
26		Monochromatic , Achromatic, Complementary, double Split	1		
27		Analogous using natural/Geometrical/abstract/ stylized/conventional motifs ,	1		
28		Analogous using natural/Geometrical/abstract/ stylized/conventional motifs ,	1		
29		Tints, Shades, Cool & Warm Color	1		
30		Tints, Shades, Cool & Warm Color	1		
31	4	Fashion Illustration Basic	1	9	Basic Illustration of Fashion Figure Drawing based on the Head theory
32		Fashion Illustration Basic	1		
33		Fashion Illustration Basic	1		
34		Simple Blocking and Fleshing of the Fashion Figures	1		
35		Simple Blocking and Fleshing of the Fashion Figures	1		
36		Simple Blocking and Fleshing of the Fashion Figures	1		
37		8 Head, 10 Head and 12 Head Figures in Simple Standing Poses	1		
38		8 Head, 10 Head and 12 Head Figures in Simple Standing Poses	1		

39		8 Head, 10 Head and 12 Head Figures in Simple Standing Poses	1		
40	5	Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Cotton , Silk	1	9	Rendering based on the Art Media Texture and various fabric Design Techniques
41		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Cotton , Silk	1		
42		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Cotton , Silk	1		
43		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Cotton , Silk	1		
44		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Fur, Denim, Print, Georgette	1		
45		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Fur, Denim, Print, Georgette	1		
46		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Fur, Denim, Print, Georgette	1		
47		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Fur, Denim, Print, Georgette	1		
48		Fabric Rendering : Learning to Simulate Texture of Various Fabrics - Chiffon, Knitted, Crochet, Lace, Embroidered	1		
Total			**48**	**48**	

ELEMENTS OF DESIGN AND FASHION (FAD 104A)

PRACTICAL QUESTION PAPER

1. Sketch a Natural/ geometric/ stylized /abstract motif inside 4"/4" square and render it using monochromatic/ analogous/ double complementary/split complementary/ triad color harmony. (10 marks)
2. Illustrate 8-head/ 10 head figure. (Block / flesh) (10 marks)
3. Viva Voce. (05 marks)
4. Record. (10 marks)

SN – 429

I Semester B.Sc. (FAD) Examination, Nov./Dec. 2017
(CBCS) (2014-2015 and Onwards) (Fresh + Repeaters)
FASHION AND APPAREL DESIGN
14 FAD 104 : Elements of Fashion and Design

ime : 3 Hours Max. Marks : 70

Instructions : 1) ***All*** *the Sections* ***compulsory***.
2) ***Illustrate*** *wherever necessary.*
3) *Write the question No. is legibly.*

SECTION – A

Answer **any ten** of the following : **(10×2=20)**

1) Define collage.
2) What are structural and decorative designs ?
3) Define space.
4) Name any five art media.
5) What are contrast colours ?
6) Define fashion cycle.
7) List down the elements of design.
8) Who are Fashion Leaders ?
9) Name any two national fashion illustrators.
10) Define proportion.
11) Illustrate a conventional design.
12) What is high fashion ?

SECTION – B

Answer **any five** of the following : **(5×4=20)**

13) What are different theories of fashion ? Explain them with suitable examples.
14) Write a note on any one national designer.

SN – 429

15) Explain the terms :
   1) Knock off
   2) Avant Garole.
16) Write notes on different lengths of fashion cycle.
17) Draw and explain 10-head theory.
18) Bring out the importance of Rhythm with illustration.

SECTION – C

III. Answer **any five** of the following : **(5×6=30)**

19) Explain elements of Design in detail.
20) Create a geometric design inside 6 × 6 inch square and apply complementary colour scheme .
21) Discuss about different sketching technique.
22) Write in detail about victorian fashion.
23) Explain "Munsellcolour system" with a neat diagram.
24) Name an illustrator of international repute and write about his/her work.
25) Who are fashion victims and fashion innovators. Briefly explain them.
26) What are the various colour schemes ? Explain in detail.

SS – 432

I Semester B.Sc. (FAD) Examination, November/December 2018
(CBCS Scheme)
(2014 – 15 & Onwards) (Fresh + Repeaters)
FASHION AND APPAREL DESIGN
14FAD104 : Elements of Fashion and Design

Time : 3 Hours Max. Marks : 70

Instructions : *1) **All** Sections are **compulsory**.*
*2) Illustrate **wherever** necessary.*
*3) Write the question number **legibly**.*

SECTION – A

I. Answer **any ten** of the following : **(10×2=20)**

1) What is design ?
2) What is collage ?
3) What is motif ?
4) Define balance.
5) Define proportion.
6) What are warm and cool colours ?
7) What is hue ?
8) What is Haute couture ?
9) What is cross hatching ?
10) What is pret-a-porter ?
11) Name the complementary colours.
12) Sketch a natural motif.

P.T.O.

SS – 432

SECTION – B

II. Answer **any five** of the following : (5×4=20)

13) Explain any two basic sketching techniques with example.

14) Explain fashion cycle.

15) Write a note on types of motifs with illustration.

16) What is Munsell colour system ? Explain in brief.

17) Write a note on facial features of male and female.

18) Explain split complementary colour scheme with example.

SECTION – C

III. Answer **any five** of the following : (5×6=30)

19) Explain in detail art media and its application.

20) Write in detail about victorian fashion.

21) Write a detail note on fashion theories.

22) Sketch a geometric design inside 10×10 cm and apply complementary scheme.

23) Write a detailed note on any one reputed Indian artist.

24) Sketch a natural motif and develop it into abstract motif and render it.

25) Explain French Revolution in detail.

26) Explain in brief elements of design.

No. of Printed Pages : **2**

100107

GN-309

I Semester B.Sc. (FAD) Examination, December - 2019
(CBCS) (F+R) (2014-15 and Onwards)

FASHION AND APPAREL DESIGN

14 FAD 104 : Elements of Fashion and Design

Time : 3 Hours Max. Marks : 70

Instructions : *(i)* ***All*** *sections are* ***compulsory****.*
(ii) Illustrate wherever ***necessary****.*
(iii) Write the question number legibly.

SECTION - A

I. Answer **any ten** of the following. **10x2=20**

1. What is Pret-a-Porter ?
2. Name Primary Colours.
3. What is Value Scale ?
4. Sketch a stylised motif.
5. What is Trend ? Give an example.
6. What is Proportion ?
7. What is cross hatching ?
8. What is hue ?
9. Name any two Fashion Illustrators.
10. What is Rhythm ?
11. List out any four elements of design.
12. What is Trickle up theory ?

T. JOHN COLLEGE
LIBRARY
BANGALORE-560 083

SECTION - B

II. Answer **any five** of the following. **5x4=20**

13. Explain any two principles of design with example.
14. Write a note on colour psychology.
15. Explain about any one Fashion illustrator of international repute.
16. Sketch a natural motif and develop it into geometrical motif.
17. Differentiate 2 points and 3 points perspective with examples.
18. Write a note on following terms :
    (a) Haute Couture
    (b) FAD
19. Write a note on French Revolution.

P.T.O.

SECTION - C

III. Answer **any five** of the following. **5x6=30**

20. Explain in detail about Elements of design.

21. Sketch any two abstract motifs, render and explain.

22. Explain about Analogous Colour Scheme.

23. Differentiate normal and fashion figure.

24. Write in detail about different Art Media's.

25. Explain types of Balance with neat sketches.

26. Explain Fashion cycle with examples.

-oOo-

PATTERN MAKING AND GARMENT CONSTRUCTION - I

{THEORY & PRACTICAL}

PATTERN MAKING AND GARMENT CONSTRUCTION-I (FAD 105A)

THEORY SYLLBUS

The total number of hours is 48 hours
The number of theory hours per week is 3 hours

Unit 1 14hrs

Introduction to pattern making & Garment construction, History of sewing machine. Introduction to sewing machine: Domestic sewing machine, Industrial sewing machine, difference between Domestic & Industrial sewing machine, parts of a sewing machine, Varieties of industrial sewing machines- Single needle machine, double needle machine-lock stitch & chain stitch machines over-lock machine, sewing machine needles types, parts & functions, care and maintenance of sewing machine ,sewing threads- function,performance, characteristics.

Unit 2 6 hrs

Introduction to Tools for pattern making and Garment construction- Measuring tools, marking tools, Cutting tools, sewing tools, Pressing tools, different GSM paper & its uses.

Unit 3 12hrs

Introduction to Basic hand Stitches : Application of Temporary and permanent stitches, Methods, importance and applications of basting, running, tacking, hand overcast, button hole, hemming stitches- plain & blind hemming, Stitches & Seams: Definition, terminologies, Specification ASTM standards, stitch properties, stitch classes, stitch types Seams: Definition, terminologies, seam Dimensions, seam classes, super imposed, Lapped, bound, Flat .

Unit 4 6 hrs

Pattern making terminologies & symbols (notches, punch/circles,) Pattern information (grain, part, piece, cut symbols) seam allowance, fabric terms (grain, Bowing)

Unit 5 6 hrs

Figure types & figure analysis (leg types, arm types, shoulders, abdomen, bust back relationship, waist hip relationship and stance). Body & garment relationship, Standardization, importance of body measurements

Unit 6 4 hrs

Introduction to basic pattern- commercial and custom made patterns

References

1. Bane Allyne, Flat pattern design, McGrawHil1 pub... USA
2. Gerry Cooklin, Introduction to Clothing Manufacture, Blackwell Science, UK, 1991
3. Harold Carr & Barbara Latham, The Technology of Clothing Manufacture, Oxford Pub., USA, 1994
4. Helen J Armstrong, Pattern Making for Fashion Design, Prentice Hall
5. Patric Taylor et.al., Grading for the fashion industry, StanelyThomes ltd., 1990
6. Winfred Aldrich.. Metric Pattern Cutting.. Blackwell Science, UK press, 1980

Department of Fashion Apparel and Design

Class Plan - PATTERN MAKING & GARMENT CONSTRUCTION - THEORY

COURSE/ SEM - I

No. Of hours required as per University: 48

No. Of hours planned by faculty: 48

Subject teacher : Mr. Akshatha HN

Sl. No	Unit	TOPICS	No. Of Hours	Total No. Of Classes	Learning Outcome
1	1	Introduction to pattern making and garment construction	1	14	Knowledge of Industrial & Domestic sewing machines and care, maintenance & functions of machines
2		History of sewing machine	1		
3		Introduction to sewing machine: Domestic sewing machine, Industrial sewing machine	1		
4		Introduction to sewing machine: Domestic sewing machine, Industrial sewing machine	1		
5		Difference between Domestic & Industrial sewing machine	1		
6		Parts of sewing machine	1		
7		Varieties of Industrial sewing machines	1		
8		Varieties of Industrial sewing machines	1		
9		Single needle machine, double needle machine-lock stitch & chain stitch machines over-lock machine	1		
10		Single needle machine, double needle machine-lock stitch & chain stitch machines over-lock machine	1		
11		Sewing machine needles-types, parts & functions	1		
12		care and maintenance of sewing machine	1		
13		Sewing threads- function, performance, characteristics	1		
14		Sewing threads- function, performance, characteristics	1		

15	2	Introduction to Tools for pattern making & garment construction	1	6	Tools and its uses
16		Introduction to Tools for pattern making & garment construction	1		
17		Measuring tools, marking tools, cutting tools, sewing tools, pressing tools	1		
18		Measuring tools, marking tools, cutting tools, sewing tools, pressing tools	1		
19		Different GSM papers & its uses	1		
20		Different GSM papers & its uses	1		
21	3	Introduction to basic hand stitches	1	12	Basic stitches and standardization
22		Application of temporary and permanent stitches	1		
23		Methods, importance and applications of basting	1		
24		running, tacking	1		
25		hand overcast, button hole	1		
26		hemming stitches	1		
27		plain & blind hemming	1		
28		stitches & seams: Definition, terminologies,	1		
29		Specification ASTM standards	1		
30		Stitch properties, stitch classes	1		
31		Stitch types seams: Definition, terminologies	1		
32		Seam dimensions, seam classes, super imposed, lapped, bound, flat	1		
33	4	Pattern making terminologies & symbols (notches, punch/circles)	1	6	Terminologies
34		Pattern making terminologies & symbols (notches, punch/circles)	1		

					and its importance
35		Pattern information (grain, part, piece, cut symbols) seam allowance	1		
36		Pattern information (grain, part, piece, cut symbols) seam allowance	1		
37		Fabric terms (grain, bowing)	1		
38		Fabric terms (grain, bowing)	1		
39	5	Figure types & figure analysis (leg types, arm types, shoulders)	1	6	Analyzing of figure types and importance of body measurements
40		Figure types & figure analysis (abdomen, bust back relationship)	1		
41		Figure types & figure analysis (waist hip relationship & stance)	1		
42		Body & garment relationship	1		
43		Standardization, importance of body measurements	1		
44		Standardization, importance of body measurements	1		
45	6	Introduction to basic pattern	1	4	Knowledge of patterns, its types & uses
46		Introduction to basic pattern	1		
47		Commercial and custom made patterns	1		
48		Commercial and custom made patterns	1		
Total			**48**	**48**	

ONLINE CERTIFICATION COURSES

Sl.No	Website link/topic
1	https://www.hamstechonline.com/garment-creation-indian

PATTERN MAKING AND GARMENT CONSTRUCTION-I (FAD 105A)

QUESTION BANK

UNIT 1 Introduction to pattern making & Garment construction, History of sewing machine. Introduction to sewing machine: Domestic sewing machine, Industrial sewing machine, difference between Domestic & Industrial sewing machine, parts of a sewing machine, Varieties of industrial sewing machines- Single needle machine, double needle Machine-lock stitch & chain stitch machines over-lock machine, sewing machine needles types, parts & functions, care and maintenance of sewing machine, sewing threads- function, performance, characteristics.

2 MARKS QUESTION:

1. Define pattern making
2. Classify pattern making
3. List out the parts of sewing machines
4. Expand SNLS & DNLS
5. Draw lock stitch and chain stitch
6. List out the types of sewing machine needles

5 MARK QUESTIONS

1. Classify pattern making and list out the pros and cons
2. Draw sewing machine with parts
3. Illustrate the different types of needles
4. Explain about sewing threads

8 MARK QUESTIONS

1. Illustrate the sewing machine and explain it parts and functions
2. Enumerate the function, performance and characteristics of sewing thread.
3. Explain care and maintenance of sewing machine
4. Give an account on problems and remedies of sewing machine.

UNIT 2 Introduction to Tools for pattern making and Garment construction- Measuring tools, Marking tools, Cutting tools, sewing tools, Pressing tools, different GSM paper & its uses.

2 MARK QUESTION:

1. Draw French and armhole curves
2. List out the length conversations
3. Expand GSM
4. List out the cutting tools
5. Explain about marking tools and its properties

5 MARK QUESTION:

1. Explain pressing tools
2. Explain about measuring tools with appropriate pictures.

8 MARKS QUESTION:

1. Enumerate the tools used for patterning and garment construction
2. Cutting tools – explain with appropriate pictures

UNIT 3 Introduction to Basic hand Stitches: Application of Temporary and permanent stitches, Methods, importance and applications of basting, running, tacking, hand overcast, button hole, hemming stitches- plain & blind hemming, Stitches & Seams: Definition, terminologies, Specification ASTM standards, stitch properties, stitch classes, stitch types Seams: Definition, terminologies, seam Dimensions, seam classes, super imposed, lapped, bound, Flat.

2 MARKS QUESTION:

1. Define stitch
2. Importance of stitching
3. Draw basting stich and tacking stitch
4. What are the application of buttonhole stitches
5. Define seam
6. Expand ASTM
7. Classify seam
8. Classify stitch
9. Draw notation of lapped and flat fell seam
10. Draw notation of piped seam and French, mock French seam
11. List out the application of flat fell seam

5 MARKS QUESTION:

1. Draw any three basic hand stitches and explain
2. Classify seam as per ASTM standards
3. Draw lock stitch and chain stitch
4. Draw over lock stitch

8 MARKS QUESTION:

1. Classify stitch with neat diagrams
2. Classify seams with appropriate seam notations.
3. Explain the application of any seams
4. Enumerate the application of basic hand stitches with diagrams

UNIT 4 Pattern making terminologies & symbols (notches, punch/circles,) Pattern information (grain, part, piece, cut symbols) seam allowance, fabric terms (grain, Bowing)

2 MARKS QUESTIONS:

1. Define pattern making
2. Define draping
3. Advantages of draping
4. List out the pattern details
5. What are the importance of pattern details
6. Define notches and its applications
7. Define grain
8. Draw on grain, off grain, bias grain.
9. Define fabric
10. Define selvedge
11. Define ease allowance and seam allowance.
12. Expand EPI, PPI.
13. Define block or sloper
14. What are the basic block set for men and women?
15. Draw a shirt front pattern and fill the details and symbols

5 MARKS QUESTIONS:

1. Classify the pattern making
2. Draw the basic block sets for men
3. Explain grain and its importance in garment construction.
4. Give an account on eminence of ease allowance.

8 MARKS QUESTION:

1. Classify pattern making and explain its pros and cons.
2. Classify the garment based on fitting and explain about its eminence of ease allowance

UNIT 5 Figure types & figure analysis (leg types, arm types, shoulders, abdomen, bust back relationship, waist hip relationship and stance). Body & garment relationship, Standardization, importance of body measurements

2 MARKS QUESTIONS:

1. List out the type of figures
2. Draw rectangle shaped figure
3. List out some of the figure irregularities
4. What are the circumference measurements
5. Define cervical height or trunk length
6. Expand HPS,CF,CB
7. What is apex level

8. What are the ways to measure shoulder slope
9. How do you calculate ease measurements for semi fitted garments?

5 MARKS QUESTIONS:

1. Explain Pear shape, A shape figure with appropriate diagrams
2. Draw the different type of faces with pictures
3. Classify the body measurements
4. Enumerate standardization of body measurements.

8 MARKS QUESTIONS:

1. What are the types of figures? Give in detail with reference pictures
2. Body measurements – importance and enumerate in detail with diagrams.

UNIT 6 Introduction to basic pattern- commercial and custom made patterns

2 MARKS QUESTION:

1. Define pattern
2. What is commercial pattern?
3. What are the contents of commercial pattern?
4. Define custom made garments.
5. Define grading

5 MARKS QUESTION:

1. What are the difference between commercial and custom made patterns
2. In detail explain about commercial patterns
3. In detail explain about custom patterns

PATTERN MAKING AND GARMENT CONSTRUCTION-I (FAD 105B)

PRACTICAL SYLLBUS

The total number of hours is 48 hours

The number of theory hours per week is 3 hours

Unit - 1 2
Sewing machine- different kinds-functions-uses-attachment-practice on paper, stitching on fabric (straight, curves, corners and circular)

Unit 2 3
Sketching the Basic sewing machine and parts, threading the Single needle machine, loading bobbin and bobbin case, fixing and removing the needle, care and maintenance of sewing machines, oiling.

Unit 3 2
Sewing techniques - Basic hand stitches- basting, running, tacking, hand overcast, buttonhole, hemming stitches - plain & blind hemming, slip stitch, tailor‘s tack

Unit 4 2
Seam & seam finishes- Plain, flat fell, French, turned & stitched, lapped, double top, pinked, over lock, & pinked and stitched

Unit 5 2
Working of over lock machine and double needle lock stitch machine

Unit 6 2
Pattern preparation for women‘s basic blocks front, back, sleeve & skirt

Unit 7 3
Preparation of muslin basic blocks, test fitting, front, back, sleeve and skirt, pattern alterations

Department of Fashion Apparel and Design					
Class Plan –PATTERN MAKING & GARMENT CONSTRUCTION- I - PRACTICALS					
COURSE/ SEM – I					
No. of hours required as per University: 48					
No. of hours planned by faculty: 48					
Subject Teacher: Anupama Patil					
Sl. No	**Unit**	**Topics**	**No. of Hours**	**Total No. of Classes**	**Learning Outcome**
1	1	Sewing machine- different kinds- functions-uses-attachment	1	6	Understand different types of sewing machine and stitch types
2		practice on paper (straight, curves, corners and circular)	1		
3		practice on paper (straight, curves, corners and circular)	1		
4		stitching on fabric (straight, curves, corners and circular)	1		
5		stitching on fabric (straight, curves, corners and circular)	1		
6		stitching on fabric (straight, curves, corners and circular)	1		
7	2	Sketching the Basic sewing machine and parts	1	9	Understand anatomy of sewing M/C and the operation process with the study of care and maintenance
8		Sketching the Basic sewing machine and parts	1		
9		Sketching the Basic sewing machine and parts	1		
10		threading the Single needle machine, loading bobbin and bobbin case, fixing and removing the needle	1		
11		threading the Single needle machine, loading bobbin and bobbin case, fixing and removing the needle	1		
12		threading the Single needle machine, loading bobbin and bobbin case, fixing and removing the needle	1		
13		Care and maintenance of sewing machines, oiling.	1		
14		Care and maintenance of sewing machines, oiling.	1		
15		Care and maintenance of sewing machines, oiling.	1		
16	3	Sewing techniques - Basic hand stitches- basting, running, tacking,	1	6	Understanding different types of

		hand overcast, buttonhole			hand stitches
17		Sewing techniques - Basic hand stitches- basting, running, tacking, hand overcast, buttonhole	1		
18		Sewing techniques - Basic hand stitches- basting, running, tacking, hand overcast, buttonhole	1		
19		hemming stitches - plain & blind hemming, slip stitch, tailor‘s tack	1		
20		hemming stitches - plain & blind hemming, slip stitch, tailor‘s tack	1		
21		hemming stitches - plain & blind hemming, slip stitch, tailor‘s tack	1		
22	4	Seam & seam finishes- Plain, flat fell, French, turned & stitched	1	6	Understanding different types of M/C stitches
23		Seam & seam finishes- Plain, flat fell, French, turned & stitched	1		
24		Seam & seam finishes- Plain, flat fell, French, turned & stitched	1		
25		lapped, double top, pinked, over lock, & pinked and stitched	1		
26		lapped, double top, pinked, over lock, & pinked and stitched	1		
27		lapped, double top, pinked, over lock, & pinked and stitched	1		
28	5	Working of over lock machine	1	6	Understanding the work process of double needle and over lock machines
29		Working of over lock machine	1		
30		Working of over lock machine	1		
31		double needle lock stitch machine	1		
32		double needle lock stitch machine	1		
33		double needle lock stitch machine	1		
34	6	Pattern preparation for women‘s basic blocks front, back,	1	6	Study of women’s basic block preparation
35		Pattern preparation for women‘s basic blocks front, back,	1		
36		Pattern preparation for women‘s basic blocks front, back.	1		
37		Pattern preparation for women‘s basic blocks sleeve, skirt.	1		
38		Pattern preparation for women‘s basic blocks sleeve, skirt.	1		

39		Pattern preparation for women‘s basic blocks sleeve, skirt.	1		
40	7	Preparation of muslin basic blocks, test fitting, front, back	1	9	Preparation of muslin for basic blocks and analyzing the fit test
41		Preparation of muslin basic blocks, test fitting, front, back	1		
42		Preparation of muslin basic blocks, test fitting, front, back	1		
43		Preparation of muslin basic blocks, test fitting, sleeve and skirt	1		
44		Preparation of muslin basic blocks, test fitting, sleeve and skirt	1		
45		Preparation of muslin basic blocks, test fitting, sleeve and skirt	1		
46		pattern alterations	1		
47		pattern alterations	1		
48		pattern alterations	1		
TOTAL			**46**	**48**	

PATTERN MAKING AND GARMENT CONSTRUCTION-I (FAD105 B)

PRACTICAL QUESTION PAPER

Time: 3 HourMax Marks-30

A) Illustrate _____ and _____ machine parts of single needle/ double needle sewing machine and label the parts.10 marks

B) Prepare a sample with over lock stitch finished at the four corners. Develop a sample of 10 marks

a) _____ and _____ hand stitches

b) _____ and _____ machine stitches

1. Viva voce 5 marks
2. Record 10 marks

NS – 385

I Semester B.Sc. (FAD) Examination, November/December 2016
(CBCS)
(2014-15 & Onwards) (F+R)
FASHION AND APPAREL DESIGN
FAD105 : Pattern Making & Garment Construction – I

Time : 3 Hours Max. Marks : 70

Instructions : *1) **All** the Sections are **compulsory**.*
*2) Illustrate **wherever** necessary.*

SECTION – A

I. Answer **any ten** of the following. **(10×2=20)**

1) Mention any two temporary hand stitches.
2) What is basting ?
3) Define Notch.
4) What is a sloper ?
5) What is an 'ideal figure' ?
6) Define Seam.
7) Sketch and label the needle parts.
8) What are shears ?
9) What are commercial patterns ?
10) Name any two industrial sewing machines.
11) State the function of stitch regulator.
12) Mention any two types of papers used for pattern making.

P.T.O.

NS – 385

SECTION – B

II. Answer **any five** of the following. **(5×4=20)**

13) Write a note on seam finishes.

14) Explain the care and maintenance of sewing machine.

15) What are custom made patterns ?

16) Explain the application of hemming and its variations.

17) Explain measuring tools.

18) Explain the function of button hole machine.

SECTION – C

III. Answer **any five** of the following. **(5×6=30)**

19) Explain the history of sewing machine.

20) Explain the terms
   a) True bias
   b) Selvedge
   c) Basic pattern set.

21) Explain different types of seams.

22) Explain about industrial sewing machines.

23) Explain the standardization of body measurements and its importance.

24) Explain in details about pressing tools.

25) Draw and explain the parts of SNLS machine.

26) With suitable sketch explain basic hand stitches.

SS – 433

I Semester B.Sc. (FAD) Examination, Nov./Dec. 2018
(CBCS) (F + R) (2014-15 and Onwards)
FASHION AND APPAREL DESIGN
14 FAD 105 : Pattern Making and Garment Construction – I

Time : 3 Hours Max. Marks : 70

Instruction : All the Sections are compulsory.

SECTION – A

I. Answer **any ten** of the following : **(10×2=20)**

1) Sketch a line diagram of
   a) Bound seam b) Lapped seam
2) Mention any two symbols used in pattern making.
3) What is snipper ?
4) List down vertical body measurements.
5) What are custom made patterns ?
6) What is a thimble ?
7) List down the types of hemming stitches.
8) Mention the two types of stitch formation.
9) What is skewing ?
10) Mention the importance of body measurement in pattern making.
11) What is a form pressing ?
12) Give reasons for thread breakage while sewing.

SECTION – B

II. Answer **any five** of the following : **(5×4=20)**

13) Mention the advantage and disadvantage of commercial patterns.
14) Explain about basic figure types.
15) Explain any two sewing tools.
16) Explain the steps involved in stitch formation.
17) Explain the following terms :
   a) Seam dimension b) Seam classes
18) Explain DNLS.

P.T.O.

SS – 433

SECTION – C

(5×6=30)

III. Answer **any five** of the following :

19) Explain sewing machine needle with suitable sketch and label the parts.

20) Explain the industrial sewing machine.

21) Explain the causes and remedies for the following sewing machine problem.

a) Puckering b) Loose stitch formation

22) Explain the stitch class 400 and 600.

23) Explain the marking and measuring tools.

24) Write a note on history of sewing machine.

25) Write a note on temporary hand stitches.

No. of Printed Pages : **2**

GN-310

100130

I Semester B.Sc. (FAD) Examination, December - 2019
(CBCS) (F+R) (2014-15 and Onwards)

FASHION AND APPAREL DESIGNING

PMGC-I : 14FAD-105 : Pattern Making and Garment Construction - I

Time : 3 Hours Max. Marks : 70

Instructions : *(i) Answer* ***all*** *sections.*
(ii) Illustrate wherever necessary.

SECTION - A

I. Answer **any ten** of the following. **10x2=20**

1. List basic pattern set.
2. State any two importance of feed dog in sewing process.
3. List any four Industrial Sewing Machines.
4. Expand SNLS & DNLS.
5. Sketch a line diagram of super imposed seam.
6. State the functions of stitch regulator.
7. List any two Pattern Marking tools.
8. Mention any 4 Temporary Hand stitches.
9. Define the term :
   (a) Seam
   (b) Stitch
10. What are custom made patterns ?
11. Illustrate presser foot and label the parts.
12. What is an Awl ? Mention its importance.

T. JOHN COLLEGE LIBRARY BANGALORE-560 083

SECTION - B

II. Answer **any five** of the following. **5x4=20**

13. Mention various figure types. Explain any one in detail.
14. Explain the functions of Double needle machine.
15. Write a note on figure analysis.
16. Mention any four common problems which occur while sewing.
17. Write a note on ASTM standards.
18. List the cutting tools and explain any two in detail.
19. Explain the terms :
    (a) grain
    (b) bowing

P.T.O.

SECTION - C

III. Answer **any five** of the following. **5x6=30**

20. Sketch and label the parts of a SNCS sewing machine.
21. Describe the tools used for pattern making.
22. List any 6 pattern making terminology and explain with neat sketch.
23. Discuss any four major sewing problems with suitable remedies.
24. Write a note on Double needle lock stitch machine.
25. Write a note on origin and history of sewing machine.
26. Write in detail about sewing threads, function, performance and characteristics.

-oOo-

ENVIRONMENTAL STUDIES

{THEORY}

UNIVERSITY GRANTS COMMISSION

Ability Enhancement Compulsory Course (AECC – Environment Studies)

Unit 1 : Introduction to environmental studies

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.

Unit 2 : Ecosystems (2 lectures)

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
  a) Forest ecosystem
  b) Grassland ecosystem
  c) Desert ecosystem
  d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit 3 : Natural Resources : Renewable and Non-renewable Resources (6 lectures)

- Land resources and landuse change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

Unit 4 : Biodiversity and Conservation (8 lectures)

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and informational value.

Unit 5 : Environmental Pollution (8 lectures)

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management : Control measures of urban and industrial waste.
- Pollution case studies.

Unit 6 : Environmental Policies & Practices (8 lectures)

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture

- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

Unit 7 : Human Communities and the Environment

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

Unit 8 : Field work

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems-pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

Suggested Readings:

1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.
4. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36-37.
7. McCully, P. 1996. Rivers no more: the environmental effects of dams (pp. 29-64). Zed Books.
8. McNeill, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. Waste Water Treatment. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. Environmental law and policy in India. Tripathi 1992.
14. Sengupta, R. 2003. Ecology and economics: An approach to sustainable development. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
17. Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
18. Warren, C. E. 1971. Biology and Water Pollution Control. WB Saunders.
19. Wilson, E. O. 2006. The Creation: An appeal to save life on earth. New York: Norton.
20. World Commission on Environment and Development. 1987. Our Common Future. Oxford University Press.

A

SN – 712

Version Code

A

I Semester B.A./B.Sc./B.C.A./B.Sc.(FAD) Examination,
November/December 2017
(CBCS) (F + R) (2014-15 and Onwards)
ENVIRONMENT AND PUBLIC HEALTH

Question Booklet Sl. No. 271426

Time Allowed : 3 Hours *Maximum Marks : 70*

INSTRUCTIONS TO CANDIDATES

1. Immediately after the commencement of the Examination, you should check that this Booklet does not have any unprinted or torn or missing pages or items, etc. If any of the above defects is found, get it replaced by a Complete Question Booklet of the available series.
2. Write clearly the Question Booklet Version Code **A**, **B**, **C**, **D** or **E**, in the appropriate space provided for the purpose, in the OMR Answer Sheet.
3. Enter the name of the Subject, Reg. No., Question Booklet version code and affix Signature on the OMR sheet. As the answer sheets are designed to suit the Optical Mark Reader (O.M.R.) system, special care should be taken to fill those items accurately.
4. This Question Booklet contains **70** questions carrying equal marks. All questions must be attempted. Each question contains four answers, among them one correct answer should be selected and shade the corresponding option in the OMR sheet.
5. All the answers should be marked only on the OMR sheet provided and only with a **black** or **blue** ink ball point pen. If more than one circle is shaded / wrongly shaded / half shaded for a given question no marks will be awarded.
6. Questions are in both English and Kannada. If any confusion arises in the Kannada version, please refer to the English version of the questions.
7. Immediately after the final bell indicating the closure of the examination, stop making any further markings in the OMR Answer Sheet. Be seated till the OMR Answer Sheet is collected. After handing over the OMR Answer Sheet to the Invigilator you may leave the examination hall.

ಗಮನಿಸಿ : ಸೂಚನೆಗಳು ಕನ್ನಡ ಆವೃತ್ತಿಯು ಈ ಪುಟದ ಹಿಂಭಾಗದಲ್ಲಿ ಮುದ್ರಿಸಲ್ಪಟ್ಟಿದೆ.

Scanned with CamScanner

1. Fresh sewage is in nature

a) Alkaline
b) Neutral
c) Acidic
d) None of the above

ನಿಸರ್ಗದಲ್ಲಿರುವ ತಾಜಾ ಸುವಾಸನೆಯು _____ ಆಗಿರುತ್ತದೆ.

a) ಕ್ಷಾರೀಯ
b) ತಟಸ್ಥ
c) ಆಮ್ಲೀಯ
d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

2. The biological decomposition of organic wastes under controlled conditions is known as

a) Composting
b) Sanitary landfills
c) Incineration
d) None of the above

ನಿಯಂತ್ರಿತ ಸ್ಥಿತಿಯಲ್ಲಿ ಜೈವಿಕ ತ್ಯಾಜ್ಯಗಳ ಜೈವಿಕ ವಿಭಜನೆಯನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?

a) ಮಿಶ್ರಗೊಬ್ಬರ
b) ನೈರ್ಮಲ್ಯ ನೆಲಭರ್ತಿ
c) ಭಸ್ಮೀಕರಣ
d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

3. Chernobyl nuclear disaster occurred in the year

a) 1985
b) 1987
c) 1986
d) 1988

ಚೆರ್ನೋಬಿಲ್ ಪರಮಾಣು ದುರಂತ ಯಾವ ವರ್ಷದಲ್ಲಿ ಸಂಭವಿಸಿದೆ ?

a) 1985
b) 1987
c) 1986
d) 1988

SPACE FOR ROUGH WORK

4. Enrichment of nutrients in a water body leads to

a) Eutrophication

b) Biotransformation

c) Biomagnification

d) None of the above

ನೀರಿನ ಆಕರಗಳಲ್ಲಿನ ಪೋಷಕಾಂಶಗಳ ಪುಷ್ಟೀಕರಣವು ಯಾವುದಕ್ಕೆ ಎಡೆ ಮಾಡಿಕೊಡುತ್ತದೆ ?

a) ವಿಪರೀತ ಫಲವತ್ತತೆ

b) ಜೈವಿಕ ರೂಪಾಂತರ

c) ಜೈವಿಕ ವರ್ಧನೆ

d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

5. The maximum permissible limit of nitrates in drinking water is

a) 45 mg/l b) 79 mg/l

c) 100 mg/l d) 250 mg/l

ಕುಡಿಯುವ ನೀರಿನಲ್ಲಿ ನೈಟ್ರೇಟ್‌ನ ಗರಿಷ್ಠ ಅನುಮತಿ ಮಿತಿ ಎಷ್ಟು ?

a) 45 mg/l b) 79 mg/l

c) 100 mg/l d) 250 mg/l

6. Environment Protection Act was enacted in the year

a) 1974 b) 1998

c) 1986 d) 1982

ಪರಿಸರ ರಕ್ಷಣೆ ಕಾಯಿದೆಯನ್ನು ಯಾವ ವರ್ಷದಲ್ಲಿ ಜಾರಿಗೆ ತರಲಾಯಿತು ?

a) 1974 b) 1998

c) 1986 d) 1982

SPACE FOR ROUGH WORK

7. pH value of potable water is
   a) 3 and 5
   b) 10.5 and 12.6
   c) 6.5 and 8.8
   d) 1.5 and 2.0

   ಪೋಟೇಬಲ್ ನೀರಿನ pH ಪ್ರಮಾಣ ಎಷ್ಟಿರುತ್ತದೆ ?
   a) 3 ಮತ್ತು 5
   b) 10.5 ಮತ್ತು 12.6
   c) 6.5 ಮತ್ತು 8.8
   d) 1.5 ಮತ್ತು 2.0

8. The chemical name for alum is
   a) Aluminium chloride
   b) Silver nitrate
   c) Aluminium sulphate
   d) Copper sulphate

   'ಅಲುಮ್'ನ ರಾಸಾಯನಿಕ ಹೆಸರು
   a) ಅಲ್ಯೂಮಿನಿಯಂ ಕ್ಲೋರೈಡ್
   b) ಸಿಲ್ವರ್ ನೈಟ್ರೇಟ್
   c) ಅಲ್ಯೂಮಿನಿಯಂ ಸಲ್ಫೇಟ್
   d) ಕಾಪರ್ ಸಲ್ಫೇಟ್

9. Consumptive, productive, social aesthetic and option values refer to
   a) Tropic structure
   b) Ecosystem stability
   c) Biodiversity
   d) Dynamic equilibrium

   ಅನುಭೋಗ, ಉತ್ಪಾದನೆ, ಸಾಮಾಜಿಕ ಬದ್ಧತೆ ಮತ್ತು ಮೌಲ್ಯಗಳು ಇದನ್ನು ಸೂಚಿಸುತ್ತವೆ
   a) ಉಷ್ಣವಲಯದ ರಚನೆ
   b) ಪರಿಸರ ವ್ಯವಸ್ಥೆಯ ಭದ್ರತೆ
   c) ಜೀವವೈವಿಧ್ಯ
   d) ಚಲನೆಯ ಸಮಷ್ಟಿತಿ

SPACE FOR ROUGH WORK

10. Due to incomplete combustion of fuels from petrol engines, the gas liberated is

a) Carbon dioxide

b) Carbon monoxide

c) Nitrogen dioxide

d) Sulphur dioxide

ಪೆಟ್ರೋಲ್ ಇಂಜಿನ್‌ಗಳಿಂದ ಇಂಧನಗಳ ಅಸಂಪೂರ್ಣ ದಹನದಿಂದಾಗಿ ಯಾವ ಅನಿಲ ಬಿಡುಗಡೆಯಾಗುತ್ತದೆ ?

a) ಇಂಗಾಲದ ಡೈ ಆಕ್ಸೈಡ್

b) ಕಾರ್ಬನ್ ಮೊನಾಕ್ಸೈಡ್

c) ಸಾರಜನಕದ ಡೈ ಆಕ್ಸೈಡ್

d) ಸಲ್ಫರ್ ಡೈ ಆಕ್ಸೈಡ್

11. Some toxic compounds are ingested and retained in the tissues. These pollutants pose special risks to humans and other organisms high on the food chain because of which process ?

a) Synergism

b) Compound contamination

c) Biomagnification

d) Carcinogenesis

ಕೆಲವು ವಿಷಕಾರಿ ಸಂಯುಕ್ತಗಳನ್ನು ಅಂಗಾಂಶಗಳಲ್ಲಿ ಸೇರಿಸಲಾಗುತ್ತದೆ ಮತ್ತು ಉಳಿಸಿಕೊಳ್ಳಲಾಗುತ್ತದೆ. ಈ ಮಾಲಿನ್ಯಕಾರಕಗಳು ಮನುಷ್ಯನ ಮತ್ತು ಇತರ ಜೀವಿಗಳಿಗೆ ಆಹಾರ ಸರಪಳಿಯ ಮೇಲೆ ಹೆಚ್ಚಿನ ಅಪಾಯವನ್ನುಂಟು ಮಾಡುತ್ತದೆ. ಈ ಪ್ರಕ್ರಿಯೆಯನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?

a) ಸಿನರ್ಜಿಸಂ

b) ಸಂಯುಕ್ತ ಮಾಲಿನ್ಯ

c) ಜೈವಿಕ ವರ್ಧನೆ

d) ಕಾರ್ಸಿನೋಜೆನಿಸಿಸ್

SPACE FOR ROUGH WORK

12. The disease caused by drinking contamination

a) Scurvy
b) Typhoid
c) Malaria
d) Anemia

ಅಶುದ್ಧ ನೀರಿನ ಸೇವನೆಯಿಂದುಂಟಾಗುವ ಕಾಯಿಲೆ

a) ಸ್ಕರ್ವಿ
b) ಟೈಫಾಯ್ಡ್
c) ಮಲೇರಿಯಾ
d) ರಕ್ತಹೀನತೆ

13. Sewage sickness is a form of

a) Water pollution
b) Air pollution
c) Land pollution
d) Light pollution

ಚರಂಡಿ ಹೊಲಸು ಇದಕ್ಕೆ ಸಂಬಂಧಿಸಿದೆ

a) ಜಲ ಮಾಲಿನ್ಯ
b) ವಾಯು ಮಾಲಿನ್ಯ
c) ಭೂ ಮಾಲಿನ್ಯ
d) ಬೆಳಕು ಮಾಲಿನ್ಯ

14. Sodium is usually estimated by which of the following analytical technique ?

a) Flame Photometry
b) Coulometry
c) High pressure liquid
d) Chromatography

ಸೋಡಿಯಂ ಸಾಮಾನ್ಯವಾಗಿ ಕೆಳಗಿನ ಯಾವ ವಿಶ್ಲೇಷಣಾತ್ಮಕ ವಿಧಾನದಿಂದ ಅಂದಾಜಿಸಲಾಗುತ್ತದೆ ?

a) ಜ್ವಾಲೆಯ ಫೋಟೋಮೆಟ್ರಿ
b) ಕೋಲೋಮೆಟ್ರಿ
c) ಅಧಿಕ ಒತ್ತಡದ ದ್ರವ
d) ವರ್ಣಶಾಸ್ತ್ರ

SPACE FOR ROUGH WORK

15. Poorly nourished lakes are known as

a) Oligotrophic

b) Eutrophic

c) Mesotrophic

d) Xerographic

ಕಳಪೆ ಪೋಷಣೆಯ ಸರೋವರಗಳನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?

a) ಸಸ್ಯಪೋಷಕ ದ್ರವ್ಯಗಳು ಕಡಿಮೆಯಿರುವ

b) ಯುಟ್ರೋಫಿಕ್

c) ಮಿಸೋಟ್ರೋಫಿಕ್

d) ಜೆರೋಗ್ರಾಫಿಕ್

16. Highest level of biotic interaction is

a) Mutualism b) Predation

c) Parasitism d) Amensalism

ಹೆಚ್ಚಿನ ಪ್ರಮಾಣದ ಜೈವಿಕ ಪರಸ್ಪರ ಕ್ರಿಯೆಯನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?

a) ಪರಸ್ಪರತ್ವ b) ಮುಂದಾಲೋಚನೆ

c) ಪರಾವಲಂಬಿ d) ಅಮೆನ್ಸಲಿಸಂ

17. Group of individuals of the same species that share common attributes is called

a) Community b) Population

c) Ecotype d) Society

ಸಾಮಾನ್ಯ ಗುಣಲಕ್ಷಣಗಳನ್ನು ಹಂಚಿಕೊಳ್ಳುವ ಒಂದೇ ಜಾತಿಯ ವ್ಯಕ್ತಿಗಳ ಗುಂಪನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?

a) ಸಮುದಾಯ b) ಜನಸಂಖ್ಯೆ

c) ಎಕೋಟೈಪ್ d) ಸಮಾಜ

SPACE FOR ROUGH WORK

18. Acid rain is caused by

a) CO and CO_2
b) SO_2 and O_2
c) SO_2 and NO_2
d) NO_2 and O_2

ಆಮ್ಲಮಳೆ ಯಾವುದರಿಂದ ಉಂಟಾಗುತ್ತದೆ ?

a) CO ಮತ್ತು CO_2
b) SO_2 ಮತ್ತು O_2
c) SO_2 ಮತ್ತು NO_2
d) NO_2 ಮತ್ತು O_2

19. Marine pollution of the ocean is due to

a) Oil spills
b) Washing of cargo ships
c) Disposal of hazardous waste
d) All the above

ಸಾಗರದ ಜಲಮಾಲಿನ್ಯವು

a) ಎಣ್ಣೆ ಹರಡುವಿಕೆಯಿಂದ
b) ಕಾರ್ಗೊ ಹಡಗುಗಳ ತೊಳೆಯುವಿಕೆಯಿಂದ
c) ಹಾನಿಕಾರಕ ತ್ಯಾಜ್ಯಗಳನ್ನು ಎಸೆಯುವುದರಿಂದ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

20. The chemical that is used to ripen mangoes is

a) Calcium sulphide
b) Calcium carbide
c) Calcium carbonate
d) Calcium chloride

ಮಾವಿನ ಹಣ್ಣುಗಳನ್ನು ಹಣ್ಣಾಗಿಸಲು ಬಳಸಲಾಗುವ ರಾಸಾಯನಿಕ ಯಾವುದು ?

a) ಕ್ಯಾಲ್ಸಿಯಂ ಸಲ್ಫೈಡ್
b) ಕ್ಯಾಲ್ಸಿಯಂ ಕಾರ್ಬೈಡ್
c) ಕ್ಯಾಲ್ಸಿಯಂ ಕಾರ್ಬೋನೇಟ್
d) ಕ್ಯಾಲ್ಸಿಯಂ ಕ್ಲೋರೈಡ್

SPACE FOR ROUGH WORK

SN – 712 -10-

21. Biotic environment includes

a) Producers b) Consumers

c) Decomposers d) All the above

ಜೈವಿಕ ಪರಿಸರ ಯಾವುದನ್ನು ಒಳಗೊಂಡಿದೆ ?

a) ಉತ್ಪಾದಕರು b) ಗ್ರಾಹಕರು

c) ವಿಭಜಕರು d) ಮೇಲಿನ ಎಲ್ಲವೂ

22. Chicken gunya is transmitted by

a) Culex b) Aedes

c) Anopheles d) Housefly

"ಚಿಕನ್ ಗುನ್ಯ" ಖಾಯಿಲೆ ಯಾವುದರಿಂದ ಹರಡುತ್ತದೆ ?

a) ಕ್ಯುಲೆಕ್ಸ್ b) ಎಡಿಸ್

c) ಅನಾಫಿಲೀಸ್ d) ನೊಣ

23. In our country, Vana Mahotsav Day is observed on

a) Second of October b) First of December

c) Tenth of August d) First of July

ನಮ್ಮ ದೇಶದಲ್ಲಿ ವನಮಹೋತ್ಸವ ದಿನಾಚರಣೆಯನ್ನು ಎಂದು ಆಚರಿಸುತ್ತಾರೆ ?

a) ಎರಡನೇ ಅಕ್ಟೋಬರ್ b) ಒಂದನೇ ಡಿಸೆಂಬರ್

c) ಹತ್ತನೇ ಆಗಸ್ಟ್ d) ಒಂದನೇ ಜುಲೈ

24. Which one of the following is not a primary contributor to the green house effect ?

a) Carbon dioxide b) Carbon monoxide

c) Chlorofluorocarbons d) Nitrous oxide

ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ಹಸಿರು ಮನೆ ಪರಿಣಾಮಕ್ಕೆ ಪ್ರಾಥಮಿಕ ಕೊಡುಗೆ ನೀಡುವುದಿಲ್ಲ ?

a) ಇಂಗಾಲದ ಡೈ ಆಕ್ಸೈಡ್ b) ಕಾರ್ಬನ್ ಮೊನಾಕ್ಸೈಡ್

c) ಕ್ಲೋರೋಫ್ಲೂರೋಕಾರ್ಬನ್ d) ನೈಟ್ರಸ್ ಆಕ್ಸೈಡ್

SPACE FOR ROUGH WORK

25. Medicine of quinine is provided by
a) Eucalyptus plant
b) Aconite plant
c) Cinchona plant
d) Money plant

ಕ್ವಿನೈನ್ ಔಷಧವನ್ನು ಯಾವುದರಿಂದ ಪಡೆಯಲಾಗುತ್ತದೆ ?
a) ನೀಲಗಿರಿ
b) ಅಕೋನೈಟ್ ಪ್ಲಾಂಟ್
c) ಸಿಂಕೋನಾ ಪ್ಲಾಂಟ್
d) ಮನಿ ಪ್ಲಾಂಟ್

26. 71% of earth surface is covered with
a) Land
b) Air
c) Water
d) Coal

ಭೂಮಿಯ ಮೇಲ್ಮೈಯ 71 ರಷ್ಟು ಭಾಗ ಯಾವುದರಿಂದ ಕೂಡಿರುತ್ತದೆ ?
a) ಭೂಮಿ
b) ಗಾಳಿ
c) ನೀರು
d) ಕಲ್ಲಿದ್ದಲು

27. Which combination of the following elements constitutes a major portion of earth crust ?
a) Oxygen and Silicon
b) Oxygen and Iron
c) Silicon and Iron
d) Aluminium and Iron

ಕೆಳಗಿನ ಯಾವ ಅಂಶವು ಭೂಮಿಯ ಸಂಯೋಜನೆಯ ಹೊರಪದರದ ಒಂದು ಪ್ರಮುಖ ಭಾಗವಾಗಿದೆ ?
a) ಆಮ್ಲಜನಕ ಮತ್ತು ಸಿಲಿಕಾನ್
b) ಆಮ್ಲಜನಕ ಮತ್ತು ಕಬ್ಬಿಣ
c) ಸಿಲಿಕಾನ್ ಮತ್ತು ಕಬ್ಬಿಣ
d) ಅಲ್ಯೂಮಿನಿಯಂ ಮತ್ತು ಕಬ್ಬಿಣ

28. The least preferred technique in the disposal of municipal solid waste is
a) Incineration
b) Composting
c) Landfilling
d) Bricketting

ಪುರಸಭೆಯ ಘನ ತ್ಯಾಜ್ಯದ ವಿಲೇವಾರಿಯಲ್ಲಿ ಕನಿಷ್ಠ ಆದ್ಯತೆಯ ವಿಧಾನ
a) ಭಸ್ಮೀಕರಣ
b) ಮಿಶ್ರಗೊಬ್ಬರ
c) ಭೂಮಿ ಭರ್ತಿ
d) ಬ್ರಿಕೆಟಿಂಗ್

SPACE FOR ROUGH WORK

29. Minamata episode was caused by which heavy metal ?
    a) Calcium b) Mercury
    c) Lead d) Arsenic

    ಮಿನಮಾಟ ಘಟನೆಯು ಈ ವಿಷಕಾರಕ ವಸ್ತುವಿನ ಪರಿಣಾಮ
    a) ಕ್ಯಾಲ್ಸಿಯಂ b) ಪಾದರಸ
    c) ಸೀಸ d) ಆರ್ಸೆನಿಕ್

30. The First Environmental Law in India was enacted in
    a) 1947 b) 1950
    c) 1972 d) 1982

    ಭಾರತದ ಮೊದಲ ಪರಿಸರ ಕಾನೂನನ್ನು ಯಾವ ವರ್ಷ ಜಾರಿಗೆ ತರಲಾಯಿತು ?
    a) 1947 b) 1950
    c) 1972 d) 1982

31. A device fitted to the exhaust system petrol driven motor vehicle to reduce emissions of pollutants is called as
    a) Conversion System b) Conversion Kit
    c) Catalytic Converter d) Catalytic Box

    ಮಾಲಿನ್ಯಕಾರಕಗಳ ಹೊರಸೂಸುವಿಕೆಯನ್ನು ಕಡಿಮೆ ಮಾಡಲು ನಿಷ್ಕಾಸ ಸಿಸ್ಟೆಮ್ ಪೆಟ್ರೋಲ್ ಚಾಲಿತ ಮೋಟಾರು ವಾಹನಕ್ಕೆ ಅಳವಡಿಸಿದ ಸಾಧನವನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?
    a) ಪರಿವರ್ತನೆ ವ್ಯವಸ್ಥೆ b) ಪರಿವರ್ತನೆ ಸಾಧನ
    c) ವೇಗವರ್ಧಕ ಪರಿವರ್ತಕ d) ವೇಗವರ್ಧಕ ಬಾಕ್ಸ್

32. The maximum permissible level of BOD (mg/l) in waste water that is let into river is
    a) 20 b) 30
    c) 40 d) 10

    ನದಿಗೆ ಬಿಡುವ ತ್ಯಾಜ್ಯ ನೀರಿನಲ್ಲಿರುವ BOD (mg/l) ಯ ಗರಿಷ್ಠ ಅನುಮತಿ ಮಟ್ಟ
    a) 20 b) 30
    c) 40 d) 10

SPACE FOR ROUGH WORK

33. Which one of the following sequence represents increasing order of toxicity of metals ?
a) Ca, Zn, Cd, Mn
b) Ca, Mn, Zn, Cd
c) Zn, Mn, Cd, Ca
d) Mn, Cd, Zn, Ca

ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವ ಶ್ರೇಣಿಯು ಲೋಹಗಳ ವಿಷತ್ವವನ್ನು ಉಂಟುಮಾಡುವ ವಸ್ತುಗಳನ್ನು ಏರಿಕೆ ಕ್ರಮದಲ್ಲಿ ಸೂಚಿಸುತ್ತದೆ ?
a) Ca, Zn, Cd, Mn
b) Ca, Mn, Zn, Cd
c) Zn, Mn, Cd, Ca
d) Mn, Cd, Zn, Ca

34. The term environment refers to
a) Total set of circumstances
b) Hydrosphere
c) Atmosphere
d) Biosphere

ಪರಿಸರ ಎಂಬ ಶಬ್ದವು
a) ಒಟ್ಟು ಸನ್ನಿವೇಶ
b) ಜಲಗೋಳ
c) ವಾತಾವರಣ
d) ಜೀವಗೋಳ

35. Climate change issue is due to increase of _____ gas in the atmosphere.
a) Oxygen b) Ozone c) CO d) CO_2

ಹವಾಮಾನ ಬದಲಾವಣೆ ಸಮಸ್ಯೆಯು ವಾತಾವರಣದಲ್ಲಿ ಯಾವ ಅನಿಲದ ಹೆಚ್ಚಳದಿಂದ ಉಂಟಾಗುತ್ತದೆ ?
a) ಆಮ್ಲಜನಕ
b) ಓಝೋನ್
c) ಕಾರ್ಬನ್ ಮೊನಾಕ್ಸೈಡ್
d) ಕಾರ್ಬನ್ ಡೈ ಆಕ್ಸೈಡ್

36. Biomass energy refers to
a) Renewable
b) Non renewable
c) Renewable and alternative
d) Renewable, alternative and ecofriendly

ಬಯೋಮಾಸ್ ಏನನ್ನು ಸೂಚಿಸುತ್ತದೆ ?
a) ನವೀಕರಿಸಬಹುದಾದ
b) ನವೀಕರಿಸಲಾಗದ
c) ನವೀಕರಿಸಬಹುದಾದ ಮತ್ತು ಪರ್ಯಾಯ
d) ನವೀಕರಿಸಬಹುದಾದ, ಪರ್ಯಾಯ ಮತ್ತು ಪರಿಸರ ಸ್ನೇಹಿ

SPACE FOR ROUGH WORK

37. Sacred grooves are of
    a) Agricultural importance
    b) Religious importance
    c) Economic importance
    d) Industrial importance

    ಪವಿತ್ರ ಮಣಿ ಏನನ್ನು ಹೊಂದಿದೆ ?
    a) ಕೃಷಿ ಪ್ರಾಮುಖ್ಯತೆ
    b) ಧಾರ್ಮಿಕ ಪ್ರಾಮುಖ್ಯತೆ
    c) ಆರ್ಥಿಕ ಪ್ರಾಮುಖ್ಯತೆ
    d) ಕೈಗಾರಿಕಾ ಪ್ರಾಮುಖ್ಯತೆ

38. Fluoride is harmful at concentration exceeding _____ mg/l in water.
    a) 0.9 b) 1.5 c) 0.5 d) 0.4

    ನೀರಿನೊಳಗಿನ ಸಾಂದ್ರತೆಯ ಮಟ್ಟದಲ್ಲಿ ಫ್ಲೋರೈಡ್ ಹಾನಿಯ ಪ್ರಮಾಣ
    a) 0.9 b) 1.5 c) 0.5 d) 0.4

39. Algal blooms appear in water due to
    a) High pesticides
    b) Nutrient enrichment
    c) More silt
    d) Industrial effluent

    ನೀರಿನಲ್ಲಿ ಪಾಚಿಯ ಹೂವುಗಳು ಅರಳಲು ಕಾರಣ
    a) ಹೆಚ್ಚಿನ ಕೀಟನಾಶಕಗಳು
    b) ಪೌಷ್ಟಿಕ ಪುಷ್ಟೀಕರಣ
    c) ಹೆಚ್ಚಿನ ಸಿಲ್ಟ್
    d) ಕೈಗಾರಿಕಾ ವಿಸರ್ಜನೆ

SPACE FOR ROUGH WORK

40. GMOs are
a) Genetically Modified Organisms
b) Genetically Mediated Organisms
c) Genetic Model Organisms
d) Genetically Model Organisms

GMOs ಎಂದರೆ
a) Genetically Modified Organisms
b) Genetically Mediated Organisms
c) Genetic Model Organisms
d) Genetically Model Organisms

41. _____ is not responsible for ozone depletion.
a) Chlorofluorocarbons
b) Lead
c) Fluorine
d) Chlorine

ಓಝೋನ್ ಸವಕಳಿಗೆ ಇದು ಕಾರಣವಲ್ಲ
a) ಕ್ಲೋರೋಫ್ಲೂರೋಕಾರ್ಬನ್
b) ಸೀಸ
c) ಫ್ಲೂರಿನ್
d) ಕ್ಲೋರಿನ್

42. _____ zone, is the deep water zone containing only heterotrophs.
a) Profoundal
b) Littoral
c) Sub littoral zone
d) None of the above

ಯಾವ ವಲಯವು ಕೇವಲ ಹೆಟಿರೋಟ್ರೋಪ್‌ಗಳನ್ನು ಹೊಂದಿರುವ ಆಳವಾದ ನೀರಿನ ವಲಯವಾಗಿದೆ ?
a) ಪ್ರಚಂಡ
b) ಕಡಲತೀರ
c) ಉಪ ಲಿಟ್ಟೊರಲ್ ವಲಯ
d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

SPACE FOR ROUGH WORK

43. The space between the soil particles and soil organisms is called
    a) Pore space
    b) Pore size
    c) Particles
    d) None of the above

    ಮಣ್ಣಿನ ಕಣಗಳು ಮತ್ತು ಮಣ್ಣಿನ ಜೀವಿಗಳ ನಡುವಿನ ಸ್ಥಳವನ್ನು ಏನೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ ?
    a) ರಂಧ್ರದ ಜಾಗ
    b) ರಂಧ್ರದ ಗಾತ್ರ
    c) ಕಣಗಳು
    d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

44. The instrument used to measure relative humidity is
    a) Hygrometer
    b) Hydrometer
    c) Barometer
    d) Thermometer

    ಸಾಪೇಕ್ಷ ಆರ್ದ್ರತೆಯನ್ನು ಅಳೆಯಲು ಬಳಸುವ ಸಾಧನ
    a) ಹೈಗ್ರೋಮೀಟರ್
    b) ಹೈಡ್ರೋಮೀಟರ್
    c) ಬ್ಯಾರೋಮೀಟರ್
    d) ಥರ್ಮೋಮೀಟರ್

45. Black soils are black in color owing to a high content of
    a) Humus b) Sodium
    c) Potassium d) Copper

    ಕಪ್ಪು ಮಣ್ಣುಗಳು ಕೆಳಗಿನ ಈ ಅಂಶಗಳ ಹೆಚ್ಚಳದಿಂದಾಗಿ ಕಪ್ಪು ಬಣ್ಣದಲ್ಲಿರುತ್ತದೆ
    a) ಹ್ಯೂಮಸ್ b) ಸೋಡಿಯಂ
    c) ಪೊಟಾಸಿಯಂ d) ತಾಮ್ರ

SPACE FOR ROUGH WORK

46. Which one of the following does not produce SO_2 in indoor environment ?

a) Fossil wood

b) Fire proofing using asbestos

c) Cooking, smoking, vacuuming

d) Kerosene space heaters

ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ಒಂದು ಒಳಾಂಗಣ ಪರಿಸರದಲ್ಲಿ SO_2 ಅನ್ನು ಉಂಟು ಮಾಡುವುದಿಲ್ಲ ?

a) ಪಳೆಯುಳಿಕೆ ಮರ

b) ಕಲ್ನಾರು ಬಳಸಿ ಬೆಂಕಿಯನ್ನು ಉತ್ಪಾದಿಸುವುದು

c) ಅಡುಗೆ, ಧೂಮಪಾನ ಮತ್ತು ನಿರ್ವಾಯು

d) ಸೀಮೆಎಣ್ಣೆಯ ಹೀಟರ್

47. The Stockholm Conference of United Nations was held in the year

a) 1968 b) 1969

c) 1971 d) 1972

ಯುನೈಟೆಡ್ ನೇಷನ್ಸ್ ಸ್ಟೋಕ್‌ಹೋಮ್ ಸಮ್ಮೇಳನವನ್ನು ಯಾವ ವರ್ಷದಲ್ಲಿ ನಡೆಸಲಾಯಿತು ?

a) 1968 b) 1969

c) 1971 d) 1972

48. Which gas is mainly responsible for the Green House effect ?

a) Ozone b) Oxygen

c) CO_2 d) CO

ಹಸಿರುಮನೆ ಪರಿಣಾಮಕ್ಕೆ ಮುಖ್ಯವಾಗಿ ಯಾವುದು ಕಾರಣವಾಗಿದೆ ?

a) ಓಝೋನ್ b) ಆಮ್ಲಜನಕ

c) ಕಾರ್ಬನ್ ಡೈ ಆಕ್ಸೈಡ್ d) ಕಾರ್ಬನ್ ಮೊನಾಕ್ಸೈಡ್

SPACE FOR ROUGH WORK

49. Symbiosis is expressed by

a) Soil b) Fungi

c) Lichens d) Virus

ಸಹಜೀವನವು ಇವುಗಳಲ್ಲಿ ಕಾಣಿಸಿಗುತ್ತದೆ

a) ಮಣ್ಣು b) ಶಿಲೀಂಧ್ರಗಳು

c) ಲಿಚೆನ್ಸ್ d) ವೈರಸ್

50. Largest ecosystems of the world are

a) Grassland b) Great lakes

c) Forests d) Oceans

ಪ್ರಪಂಚದ ಅತಿ ದೊಡ್ಡ ಪರಿಸರ ವ್ಯವಸ್ಥೆ

a) ಹುಲ್ಲುಭೂಮಿ b) ದೊಡ್ಡ ಸರೋವರಗಳು

c) ಅರಣ್ಯ d) ಸಾಗರ

51. Acid rains is any rain with pH

a) Below 5.6 b) Above 5.6 and below 6.9

c) Below 8.0 d) Below 7.0

ಯಾವುದೇ ಮಳೆಯನ್ನು 'ಆಮ್ಲ ಮಳೆ' ಎಂದು ಕರೆಯಲು pHನ ಮೌಲ್ಯ

a) < 5.6 b) > 5.6 ಮತ್ತು < 6.9

c) < 8.0 d) < 7.0

52. The author of Silent Spring

a) Jeffrey Archer b) Rachel Carson

c) E. P. Odum d) Sydney Sheldon

''ಸೈಲೆಂಟ್ ಸ್ಪ್ರಿಂಗ್''ನ ಲೇಖಕ

a) ಜೆಫ್ರಿ ಆರ್ಚರ್ b) ರಾಚೆಲ್ ಕಾರ್ಸನ್

c) ಇ. ಪಿ. ಓಡುಮ್ d) ಸಿಡ್ನಿ ಶೆಲ್ಡನ್

SPACE FOR ROUGH WORK

53. The thickness of the ozone layer is measured using unit of

a) Newton
b) Joule
c) Dobson
d) Decibel

ಓಝೋನ್ ಪದರದ ದಪ್ಪವನ್ನು ಯಾವ ಮಾಪನವನ್ನು ಬಳಸಿಕೊಂಡು ಅಳೆಯಲಾಗುತ್ತದೆ ?

a) ನ್ಯೂಟನ್
b) ಜೌಲ್
c) ಡಾಬ್ಸನ್
d) ಡೆಸಿಬಲ್

54. Which one of the following is a non persistent pesticide ?

a) Chlordane
b) Dieldrin
c) Malathion
d) Aldrin

ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ಒಂದು ನಿರಂತರವಲ್ಲದ ಕೀಟನಾಶಕ ?

a) ಕ್ಲೋರ್ಡೇನ್
b) ಡಿಲ್ಡ್ರಿನ್
c) ಮ್ಯಾಲಥ್ಯೆಯಾನ್
d) ಆಲ್ಡ್ರಿನ್

55. Chipko Movement was held in

a) Uttar Pradesh
b) Assam
c) Karnataka
d) Kerala

''ಚಿಪ್ಕೋ'' ಚಳುವಳಿ ಎಲ್ಲಿ ನಡೆಯಿತು ?

a) ಉತ್ತರ ಪ್ರದೇಶ
b) ಅಸ್ಸಾಂ
c) ಕರ್ನಾಟಕ
d) ಕೇರಳ

56. London Smog occurred in the year

a) 1952
b) 1986
c) 1962
d) 1972

ಲಂಡನ್ ದೇಶದಲ್ಲಿ ಹೊಗೆ ಮಂಜು ಯಾವಾಗ ಸಂಭವಿಸಿದೆ ?

a) 1952
b) 1986
c) 1962
d) 1972

SPACE FOR ROUGH WORK

57. Chlorine added to water acts as a
    a) Disinfectant
    b) Absorbent
    c) Coagulant
    d) None of the above

    ನೀರಿಗೆ ಕ್ಲೋರಿನ್ ಅನ್ನು ಸೇರಿಸಿದಾಗ ಏನಾಗುತ್ತದೆ ?
    a) ಸೋಂಕು ನಿವಾರಕ
    b) ಹೀರಿಕೊಳ್ಳುವ
    c) ಕಾಗುಲಂಟ್
    d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

58. The United Nations Conference on human environment was organized at
    a) Rio de Janiero b) Paris
    c) Stockholm d) New Delhi

    ಮಾನವ ಪರಿಸರದ ಕುರಿತು ಯುನೈಟೆಡ್ ರಾಷ್ಟ್ರಗಳ ಸಭೆ ಎಲ್ಲಿ ಆಯೋಜಿಸಲಾಗಿದೆ ?
    a) ರಿಯೋ ಡಿ ಜನೈರೋ b) ಪ್ಯಾರಿಸ್
    c) ಸ್ಟೋಕ್‌ಹೋಮ್ d) ನವದೆಹಲಿ

59. _____ gives an empirical value to water quality and is a parameter for the organic matter present in water.
    a) BOD b) COD
    c) DO d) Hardness

    ನೀರಿನ ಗುಣಮಟ್ಟಕ್ಕೆ ಪ್ರಾಯೋಗಿಕ ಮೌಲ್ಯವನ್ನು ನೀಡುವ ಮತ್ತು ನೀರಿನಲ್ಲಿ ಸಾವಯವ ಪದಾರ್ಥವಿರುವ ಒಂದು ವಸ್ತು
    a) BOD b) COD
    c) DO d) ಗಟ್ಟಿತನ

SPACE FOR ROUGH WORK

60. Ozone is a

a) Primary pollutant
b) Secondary pollutant
c) Hydrocarbon
d) PAN

ಓಝೋನ್ ಪದರವು

a) ಪ್ರಾಥಮಿಕ ಮಾಲಿನ್ಯಕಾರಕಗಳು
b) ಮಾಧ್ಯಮಿಕ ಮಾಲಿನ್ಯಕಾರಕಗಳು
c) ಹೈಡ್ರೋಕಾರ್ಬನ್
d) PAN

61. High volume air sampler is used to monitor

a) CO
b) CO_2
c) SPM
d) Hydrocarbon

ಮೇಲ್ವಿಚಾರಣೆ ಮಾಡಲು ಯಾವ ಹೆಚ್ಚಿನ ಪರಿಣಾಮದ ಮಾದರಿಗಳನ್ನು ಬಳಸಲಾಗುತ್ತದೆ ?

a) ಕಾರ್ಬನ್ ಮೊನಾಕ್ಸೈಡ್
b) ಕಾರ್ಬನ್ ಡೈ ಆಕ್ಸೈಡ್
c) ಎಸ್.ಪಿ.ಎಂ.
d) ಹೈಡ್ರೋಕಾರ್ಬನ್

62. Which of the following is an endemic species found in Western Ghats ?

a) Marsh Mongoose
b) Indian Rhinoceros
c) Brown Palmcivet
d) Flying Squirrel

ಇವುಗಳಲ್ಲಿ ಯಾವುದು ಪಶ್ಚಿಮ ಘಟ್ಟಗಳಲ್ಲಿ ಕಂಡುಬರುವ ಸ್ಥಳೀಯ ಜಾತಿಯಾಗಿದೆ ?

a) ಮಾರ್ಷ್ ಮಾಂಗೂಸ್
b) ಭಾರತೀಯ ಖಡ್ಗಮೃಗ
c) ಕಂದು ಪಾಲ್ಮ್‌ವೀಟ್
d) ಹಾರುವ ಅಳಿಲು

63. The mean temperature of the earth is approximately

a) 10°C
b) 15°C
c) 20°C
d) 29°C

ಭೂಮಿಯ ಸರಾಸರಿ ತಾಪಮಾನವು ಸರಿ ಸುಮಾರು

a) 10°C
b) 15°C
c) 20°C
d) 29°C

SPACE FOR ROUGH WORK

SN – 712 -22-

64. Which of the following is a green house gas ?
a) Nitrogen b) Methane
c) Oxygen d) Sulphur dioxide

ಇವುಗಳಲ್ಲಿ ಯಾವುದು ಹಸಿರುಮನೆ ಅನಿಲವಾಗಿದೆ ?
a) ಸಾರಜನಕ b) ಮೀಥೇನ್
c) ಆಮ್ಲಜನಕ d) ಸಲ್ಫರ್ ಡೈ ಆಕ್ಸೈಡ್

65. Which of the following is not a fossil fuel ?
a) Coal b) Wood
c) Petrol d) LPG

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ಪಳೆಯುಳಿಕೆ ಇಂಧನವಲ್ಲ ?
a) ಕಲ್ಲಿದ್ದಲು b) ಮರ
c) ಪೆಟ್ರೋಲ್ d) ಎಲ್.ಪಿ.ಜಿ.

66. The coldest region of the atmosphere is
a) Troposphere b) Stratosphere
c) Mesosphere d) Thermosphere

ವಾತಾವರಣದ ಅತಿ ಶೀತ ಪ್ರದೇಶ
a) ಟ್ರೊಪೋಸ್ಫಿಯರ್ b) ವಾಯುಮಂಡಲ
c) ಮಿಸೋಸ್ಫಿಯರ್ d) ಥರ್ಮೋಸ್ಫಿಯರ್

67. Environmental planning organization is
a) ICAR b) NEERI
c) NCO d) NPO

ಪರಿಸರ ಯೋಜನೆಯ ಸಂಘಟನೆ
a) ICAR b) NEERI
c) NCO d) NPO

SPACE FOR ROUGH WORK

68. The Silent Valley is a
    a) Place in Himachal Pradesh
    b) Densely forested valley in Palghat district of North Kerala
    c) Valley in Garhwali Himalayan region
    d) Valley in Shivalik range

    "ಸೈಲೆಂಟ್ ವ್ಯಾಲಿ" ಎನ್ನುವುದು
    a) ಹಿಮಾಚಲ ಪ್ರದೇಶದ ಸುಂದರವಾದ ಸ್ಥಳ
    b) ಉತ್ತರ ಕೇರಳದ ಪಾಲ್ಘಟ್ ಜಿಲ್ಲೆಯ ದಟ್ಟವಾದ ಕಾಡು ಕಣಿವೆ
    c) ಗರವಾಲಿ ಹಿಮಾಲಯನ್ ಪ್ರದೇಶದ ಕಣಿವೆ
    d) ಶಿವಾಲಿಕ್ ವ್ಯಾಪ್ತಿಯ ಕಣಿವೆ

69. Richter scale is used to measure
    a) Velocity of light
    b) Intensity of sound
    c) Amplitude of seismic waves
    d) Wind velocity

    ರಿಕ್ಟರ್ ಮಾಪಕವನ್ನು ಏಕೆ ಬಳಸಲಾಗುತ್ತದೆ ?
    a) ಬೆಳಕಿನ ವೇಗ
    b) ಧ್ವನಿ ತೀವ್ರತೆ
    c) ಭೂಕಂಪಗಳ ಅಲೆಗಳ ವೈಶಾಲ್ಯ
    d) ಗಾಳಿ ವೇಗ

70. A common disinfectant used in village wells is
    a) Ozone gas
    b) Potassium permanganate
    c) Iodine and bromine
    d) Free chlorine

    ಹಳ್ಳಿಯಲ್ಲಿ ಬಾವಿಗಳಿಗೆ ಬಳಸಲಾಗುವ ಸಾಮಾನ್ಯ ಸೋಂಕು ನಿವಾರಕ
    a) ಓಝೋನ್ ಅನಿಲ
    b) ಪೊಟ್ಯಾಶಿಯಂ ಪರ್ಮಾಂಗನೇಟ್
    c) ಅಯೋಡಿನ್ ಮತ್ತು ಬ್ರೋಮಿನ್
    d) ಫ್ರೀ ಕ್ಲೋರಿನ್

SPACE FOR ROUGH WORK

SS – 775

Question Booklet Sl. No. 851926 A

I SEMESTER B.A./ B.Sc./B.C.A./B.Sc. (FAD) EXAMINATION, NOV./DEC. 2018
(Semester Scheme) (Fresh) (CBCS)
(2018-19 and Onwards)
ENVIRONMENTAL STUDIES (AECC)

Version Code **A**

Time Allowed : 3 Hours *Maximum Marks : 70*

INSTRUCTIONS TO CANDIDATES

1. Immediately after the commencement of the Examination, you should check that this Booklet does not have any unprinted or torn or missing pages or items, etc. If any of the above defects is found, get it replaced by a Complete Question Booklet of the available series.
2. Write clearly the Question Booklet Version Code **A**, **B**, **C**, **D** or **E**, in the appropriate space provided for the purpose, in the OMR Answer Sheet.
3. Enter the name of the Subject, Reg. No., Question Booklet version code and affix Signature on the OMR sheet. As the answer sheets are designed to suit the Optical Mark Reader (O.M.R.) system, special care should be taken to fill those items accurately.
4. This Question Booklet contains **70** questions carrying equal marks. All questions must be attempted. Each question contains four answers, among them one correct answer should be selected and shade the corresponding option in the OMR sheet.
5. All the answers should be marked only on the OMR sheet provided and only with a black or blue ink ball point pen. If more than one circle is shaded / wrongly shaded / half shaded for a given question no marks will be awarded.
6. Questions are in both English and Kannada. If any confusion arises in the Kannada version, please refer to the English version of the questions.
7. Immediately after the final bell indicating the closure of the examination, stop making any further markings in the OMR Answer Sheet. Be seated till the OMR Answer Sheet is collected. After handing over the OMR Answer Sheet to the Invigilator you may leave the examination hall.

ಸೂಚನೆ : ಪರೀಕ್ಷಾರ್ಥಿಗಳ ಕನ್ನಡ ಆವೃತ್ತಿಯಲ್ಲಿ ಯಾವುದೇ ಗೊಂದಲಗಳಿದ್ದಲ್ಲಿ, ಇಂಗ್ಲೀಷ್ ಆವೃತ್ತಿಯನ್ನು ನೋಡಿರಿ.

1. U.N. Conference on Human and Environment in Stockholm was held in the year
   a) 1947 b) 1972 c) 1969 d) 1983

   ಸ್ಟಾಕ್ ಹೋಮ್‌ನಲ್ಲಿ ನಡೆದ ಮಾನವ ಮತ್ತು ಪರಿಸರಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ವಿಚಾರ ಸಂಕಿರಣ ನಡೆದ ವರ್ಷ
   a) 1947 b) 1972 c) 1969 d) 1983

2. Abiotic environment includes
   a) Plant, animals and microbes
   b) Light, temperature and water
   c) Human being, Insects and Birds
   d) Algae, Fungi and Bacteria

   ಆಜೈವಿಕ ಪರಿಸರ ಘಟಕಾಂಶಗಳು ಒಳಗೊಂಡಿರುವುದು
   a) ಸಸ್ಯ, ಪ್ರಾಣಿ ಮತ್ತು ಸೂಕ್ಷ್ಮಾಣು ಜೀವಿಗಳು
   b) ಬೆಳಕು, ಉಷ್ಣ ಮತ್ತು ನೀರು
   c) ಮಾನವರು, ಕೀಟಗಳು ಮತ್ತು ಪಕ್ಷಿಗಳು
   d) ಪಾಚಿ, ಶಿಲೀಂಧ್ರ ಮತ್ತು ಬ್ಯಾಕ್ಟೀರಿಯಾ

3. All the living organisms of the earth constitute
   a) Biosphere b) Biome c) Community d) Biology

   ಎಲ್ಲಾ ಜೀವಿಗಳನ್ನೊಳಗೊಂಡ ಭೂಭಾಗ
   a) ಜೀವಗೋಳ b) ಬಯೋಮ್ c) ಸಮುದಾಯ d) ಜೀವಶಾಸ್ತ್ರ

4. Expand BNHS.
   a) Bombay Natural History Society
   b) Bombay National History Society
   c) Bombay National Horticultural Society
   d) Bombay National Histological Society

   ಬಿ. ಎನ್. ಹೆಚ್. ಎಸ್. ವಿಸ್ತರಿಸಿ
   a) ಬಾಂಬೆ ನ್ಯಾಚ್ಯುರಲ್ ಹಿಸ್ಟರಿ ಸೊಸೈಟಿ (ಬಾಂಬೆ ನೈಸರ್ಗಿಕ ಇತಿಹಾಸ ಸಂಸ್ಥೆ)
   b) ಬಾಂಬೆ ನ್ಯಾಷನಲ್ ಹಿಸ್ಟರಿ ಸೊಸೈಟಿ (ಬಾಂಬೆ ರಾಷ್ಟ್ರೀಯ ಇತಿಹಾಸ ಸಂಸ್ಥೆ)
   c) ಬಾಂಬೆ ನ್ಯಾಷನಲ್ ಹಾರ್ಟಿಕಲ್ಚರ್ ಸೊಸೈಟಿ (ಬಾಂಬೆ ರಾಷ್ಟ್ರೀಯ ತೋಟಗಾರಿಕಾ ಸಂಸ್ಥೆ)
   d) ಬಾಂಬೆ ನ್ಯಾಷನಲ್ ಹಿಸ್ಟೋಲಾಜಿಕಲ್ ಸೊಸೈಟಿ (ಬಾಂಬೆ ರಾಷ್ಟ್ರೀಯ ಹಿಸ್ಟಾಲಾಜಿಕಲ್ ಸಂಸ್ಥೆ)

SPACE FOR ROUGH WORK

5. The chief goal of environmental education is

a) To improve the quality of environment

b) To create an awareness among people on environmental protection

c) To develop the capabilities of decision making related to environmental issues

d) To fight against the corruption

ಪರಿಸರ ಶಿಕ್ಷಣದ ಪ್ರಮುಖ ಗುರಿ

a) ಪರಿಸರ ಗುಣಮಟ್ಟವನ್ನು ವೃದ್ಧಿಸುವುದು

b) ಜನರಲ್ಲಿ ಪರಿಸರ ರಕ್ಷಣೆಯ ಬಗ್ಗೆ ಜಾಗೃತಿ ಮೂಡಿಸುವುದು

c) ಪರಿಸರ ಸಂಬಂಧಿ ವಿಷಯಗಳ ಬಗ್ಗೆ ನಿರ್ಣಯ ತೆಗೆದುಕೊಳ್ಳುವ ಸಾಮರ್ಥ್ಯವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವುದು

d) ಭ್ರಷ್ಟಾಚಾರದ ವಿರುದ್ಧ ಹೋರಾಡುವುದು

6. When was Bhopal gas tragedy occurred ?

a) 3rd December 1984 b) 6th December 1984

c) 5th December 1984 d) 9th June 1985

ಭೂಪಾಲ್ ಅನಿಲ ದುರಂತ ನಡೆದ ವರ್ಷ

a) ಡಿಸೆಂಬರ್ 3, 1984 b) ಡಿಸೆಂಬರ್ 6, 1984

c) ಡಿಸೆಂಬರ್ 5, 1984 d) ಜೂನ್ 9, 1985

7. Which one of the following is not a layer in atmosphere ?

a) Mesosphere b) Stratosphere

c) Hydrosphere d) Troposphere

ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ವಾತಾವರಣದ ಪದರವಲ್ಲ ?

a) ಮಿಸೋಸ್ಪಿಯರ್ b) ಸ್ಟ್ರಾಟೋಸ್ಪಿಯರ್

c) ಹೈಡ್ರೋಸ್ಪಿಯರ್ d) ಟ್ರೋಪೋಸ್ಪಿಯರ್

SPACE FOR ROUGH WORK

8. Air pollution leads to

a) Gastro intestinal disease

b) Respiratory diseases

c) Communicable disease

d) Sexually transmitted diseases

ವಾಯುಮಾಲಿನ್ಯ ಇದಕ್ಕೆ ಕಾರಣವಾಗುತ್ತದೆ

a) ಜಠರ ಮತ್ತು ಕರುಳು ಸಂಬಂಧಿ ರೋಗಗಳು

b) ಉಸಿರಾಟ ಸಂಬಂಧಿ ರೋಗಗಳು

c) ಸಾಂಕ್ರಾಮಿಕ ರೋಗಗಳು

d) ಲೈಂಗಿಕ ರೋಗಗಳು

9. Who is Dr. Salim Ali ?

a) A physicist

b) A scientist

c) An ornithologist

d) A herpetologist

ಡಾ. ಸಲೀಂ ಅಲಿ ಯಾರು ?

a) ಒಬ್ಬ ಭೌತಶಾಸ್ತ್ರಜ್ಞ

b) ಒಬ್ಬ ವಿಜ್ಞಾನಿ

c) ಒಬ್ಬ ಪಕ್ಷಿತಜ್ಞ

d) ಒಬ್ಬ ಉರಗ ತಜ್ಞ

10. Water is a

a) Renewable resource

b) Non-renewable resource

c) Man made resource

d) Artificial resource

ನೀರು ಒಂದು

a) ನವೀಕರಿಸಬಹುದಾದ ಸಂಪನ್ಮೂಲ

b) ನವೀಕರಿಸಲಾಗದ ಸಂಪನ್ಮೂಲ

c) ಮಾನವ ನಿರ್ಮಿತ ಸಂಪನ್ಮೂಲ

d) ಕೃತಕ ಸಂಪನ್ಮೂಲ

SPACE FOR ROUGH WORK

SS – 775

11. Flood is

a) Increase of water in water bodies

b) Increase of silt in river

c) Increase of silt in ponds

d) Encroachment of land by water

ಪ್ರವಾಹ ಎಂದರೆ

a) ನೀರಿನ ಆಕರಗಳಲ್ಲಿ ನೀರಿನ ಮಟ್ಟ ಏರಿಕೆ

b) ನದಿಗಳಲ್ಲಿ ಹೂಳು ತುಂಬುವಿಕೆ

c) ಕೆರೆಗಳಲ್ಲಿ ಹೂಳು ತುಂಬುವಿಕೆ

d) ನೆಲ ಜಲದಿಂದ ಆವೃತವಾಗುವುದು

12. Expand D. D. T.

a) Dichloro Diphenyl Trichloro ethane

b) Dichloro Diethane Trichloro methane

c) Dichloro Disulphide Trichloro ethane

d) Dichloro Diphenyl Trichloro methane

ಡಿ. ಡಿ. ಟಿ. ಯಮ್ನು ವಿಸ್ತರಿಸಿ

a) ಡೈಕ್ಲೋರೋ ಡೈಫಿನೈಲ್ ಟ್ರೈಕ್ಲೋರೋ ಇಥೇನ್

b) ಡೈಕ್ಲೋರೋ ಡೈಇಥೇನ್ ಟ್ರೈಕ್ಲೋರೋ ಮಿಥೇನ್

c) ಡೈಕ್ಲೋರೋ ಡೈಸಲ್ಫೈಡ್ ಟ್ರೈಕ್ಲೋರೋ ಇಥೇನ್

d) ಡೈಕ್ಲೋರೋ ಡೈಫಿನೈಲ್ ಟ್ರೈಕ್ಲೋರೋ ಮಿಥೇನ್

SPACE FOR ROUGH WORK

[redacted] -7- SS – 775

13. Biodiesel is derived from

a) Petroleum
b) Solar gas
c) Diesel
d) Plants

ಜೈವಿಕ ಡೀಸೆಲ್ _____ ನಿಂದ ಬರುತ್ತದೆ.

a) ಪೆಟ್ರೋಲಿಯಂ
b) ಗೊಬ್ಬರ ಆಸಿಲ
c) ಡೀಸೆಲ್
d) ಸಸ್ಯ

14. Geothermal energy is stored in

a) On the earth
b) Above the earth
c) Within the ocean
d) Within the earth

ಭೂಶಾಖ ಶಕ್ತಿ _____ ನಲ್ಲಿ ಶೇಖರಗೊಂಡಿದೆ.

a) ಭೂಮಿ ಮೇಲೆ
b) ಭೂಮಿಗಿಂತ ಮೇಲೆ
c) ಸಮುದ್ರದ ಒಳಗೆ
d) ಭೂಮಿ ಒಳಗೆ

15. _____ is used in nuclear power station.

a) Cadmium
b) Uranium
c) Iron
d) Carbon

ಅಣುಶಕ್ತಿ ಸ್ಥಾವರದಲ್ಲಿ _____ ಉಪಯೋಗಿಸುತ್ತಾರೆ.

a) ಕ್ಯಾಡ್‌ಮಿಯಮ್
b) ಯುರೇನಿಯಮ್
c) ಕಬ್ಬಿಣ
d) ಕಾರ್ಬನ್

SPACE FOR ROUGH WORK

6. Salinization is
   a) Accumulation of salts in water
   b) Accumulation of salts in food
   c) Accumulation of salts in body of animals
   d) Accumulation of salts in Rocks

   ಲವಣೀಕರಣವೆಂದರೆ
   a) ನೀರಿನಲ್ಲಿ ಲವಣ ಸಂಗ್ರಹ
   b) ಆಹಾರದಲ್ಲಿ ಲವಣ ಸಂಗ್ರಹ
   c) ಪ್ರಾಣಿಗಳ ದೇಹದಲ್ಲಿ ಲವಣ ಸಂಗ್ರಹ
   d) ಶಿಲೆಗಳಲ್ಲಿ ಲವಣ ಸಂಗ್ರಹ

17. Expand G. I. S.
   a) Geological Information System
   b) Geological Information Source
   c) Geographical Information Source
   d) Geographical Information System

   ಜಿ. ಐ. ಎಸ್. ನ ವಿಸ್ತೃತ ರೂಪ
   a) ಜಿಯಾಲಾಜಿಕಲ್ ಇನ್‌ಫಾರ್‌ಮೇಶನ್ ಸಿಸ್ಟಮ್
   b) ಜಿಯಾಲಾಜಿಕಲ್ ಇನ್‌ಫಾರ್‌ಮೇಶನ್ ಸೋರ್ಸ್
   c) ಜಿಯೋಗ್ರಾಫಿಕಲ್ ಇನ್‌ಫಾರ್‌ಮೇಶನ್ ಸೋರ್ಸ್
   d) ಜಿಯೋಗ್ರಾಫಿಕಲ್ ಇನ್‌ಫಾರ್‌ಮೇಶನ್ ಸಿಸ್ಟಮ್

18. Weathering is a process of
   a) Soil formation
   b) Rock formation
   c) Mineral formation
   d) Crystal formation

   ಶಿಥಿಲೀಕರಣ ಇದರ ಒಂದು ಪ್ರಕ್ರಿಯೆ
   a) ಮಣ್ಣು ಉತ್ಪತ್ತಿ
   b) ಶಿಲಾ ಉತ್ಪತ್ತಿ
   c) ಖನಿಜ ಉತ್ಪತ್ತಿ
   d) ಹರಳು ಉತ್ಪತ್ತಿ

SPACE FOR ROUGH WORK

19. Blue baby syndrome is caused by which pollution ?

a) CO b) Flourine c) Nitrate d) Mercury

ಬ್ಲೂ ಬೇಬಿ ಸಿಂಡ್ರೋಮ್ ಯಾವ ಮಾಲಿನ್ಯದ ಕಾರಣದಿಂದ ಉಂಟಾಗುತ್ತದೆ ?

a) ಕಾರ್ಬನ್ ಮೊನಾಕ್ಸೈಡ್ b) ಫ್ಲೋರಿನ್ c) ನೈಟ್ರೇಟ್ d) ಪಾದರಸ

20. Drought means

a) Scarcity of land b) Scarcity of water

c) Scarcity of food d) None of the above

ಬರ ಎಂದರೆ

a) ಭೂ ಕೊರತೆ b) ನೀರಿನ ಕೊರತೆ

c) ಆಹಾರದ ಕೊರತೆ d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

21. LPG is

a) Liquefied petroleum gas b) Liquefied pump gas

c) Liquefied petrol gas d) Liquefied pyrol gas

ಎಲ್.ಪಿ.ಜಿ. ಎಂದರೆ

a) ಲಿಕ್ವಿಫೈಡ್ ಪೆಟ್ರೋಲಿಯಂ ಗ್ಯಾಸ್ b) ಲಿಕ್ವಿಫೈಡ್ ಪಂಪ್ ಗ್ಯಾಸ್

c) ಲಿಕ್ವಿಫೈಡ್ ಪೆಟ್ರೋಲ್ ಗ್ಯಾಸ್ d) ಲಿಕ್ವಿಫೈಡ್ ಪೈರೋಲ್ ಗ್ಯಾಸ್

22. Lotic water bodies mean

a) Flowing water bodies b) Stilt water bodies

c) Surface water bodies d) Subsurface water bodies

ಲೋಟಿಕ್ ನೀರಿನ ಆಕರಗಳೆಂದರೆ

a) ಹರಿಯುವ ನೀರಿನ ಆಕರಗಳು b) ನಿಂತ ನೀರಿನ ಆಕರಗಳು

c) ಮೇಲ್ಮೈ ನೀರಿನ ಆಕರಗಳು d) ಆಳ ನೀರಿನ ಆಕರಗಳು

23. The term "eco-system" was first coined by _____

a) E. P. Odum
b) S. A. Forbes
c) Karl Moblus
d) A. G. Tansley

_____ ಇವರು ಪ್ರಥಮ ಬಾರಿಗೆ "ಇಕೋಸಿಸ್ಟಮ್" ಪದವನ್ನು ಉಪಯೋಗಿಸಿದರು.

a) ಇ. ಪಿ. ಓಡಮ್
b) ಎಸ್. ಎ. ಫೋರ್ಬ್ಸ್
c) ಕಾರ್ಲ್ ಮೋಬಿಯಸ್
d) ಎ. ಜಿ. ಟ್ಯಾನ್ಸ್ಲೆ

24. The two major types of natural eco-systems are _____

a) Terrestrial and artificial
b) Terrestrial and aquatic
c) Terrestrial and urban
d) Terrestrial and rural

_____ ಇವು ಎರಡು ಸ್ವಾಭಾವಿಕ ಪರಿಸರ ವ್ಯವಸ್ಥೆಯ ಪ್ರಮುಖ ವಿಧಗಳು.

a) ಭೂ ನಿವಾಸ ಮತ್ತು ಕೃತಕ
b) ಭೂ ನಿವಾಸ ಮತ್ತು ಜಲ ನಿವಾಸ
c) ಭೂ ನಿವಾಸ ಮತ್ತು ನಗರ
d) ಭೂ ನಿವಾಸ ಮತ್ತು ಹಳ್ಳಿ

25. One of the following is not an example for grazing food chain.

a) Green plants → grass hopper → lizard → hawk
b) Zooplankton → small fishes → large fishes → whale
c) Seeds → rodents → snakes → hawk
d) Grass → deer → tiger

ಇವುಗಳಲ್ಲಿ ಒಂದು ಮೇಯುವ ಆಹಾರ ಸರಪಳಿಗೆ ಉದಾಹರಣೆಯಲ್ಲ.

a) ಹಸಿರು ಸಸ್ಯಗಳು → ಮಿಡತೆ → ಹಲ್ಲಿ → ಗಿಡುಗ
b) ಪ್ರಾಣಿಪ್ಲವಕಗಳು → ಸಣ್ಣ ಮೀನುಗಳು → ದೊಡ್ಡ ಮೀನುಗಳು → ತಿಮಿಂಗಿಲ
c) ಬೀಜಗಳು → ದಂಶಿಕಗಳು → ಹಾವುಗಳು → ಗಿಡುಗ
d) ಹುಲ್ಲು → ಜಿಂಕೆ → ಹುಲಿ

26. Autotrophs are capable of

a) Decomposing food

b) Synthesizing their own food

c) Collecting the food

d) Eating the food

ಸ್ವಯಂ ಪೋಷಿತ ಜೀವಿಗಳು _____ ಇದರಲ್ಲಿ ಪರಿಣತರು.

a) ಆಹಾರವನ್ನು ವಿಭಜಿಸುವುದು

b) ತಮ್ಮ ಆಹಾರವನ್ನು ತಾವೇ ತಯಾರಿಸುವುದು

c) ಆಹಾರವನ್ನು ಒಗ್ಗೂಡಿಸುವುದು

d) ಆಹಾರವನ್ನು ತಿನ್ನುವುದು

27. The pattern of eating and being eaten is known as

a) Food web b) Energy flow

c) Food chain d) Ecological pyramid

ಒಂದು ಜೀವಿಯನ್ನು ಇನ್ನೊಂದು ಜೀವಿ ತಿನ್ನುವ ಮತ್ತು ತಿನ್ನಲ್ಪಡುವ ಕ್ರಿಯೆಯನ್ನು _____ ಎನ್ನುತ್ತಾರೆ

a) ಆಹಾರ ಜಾಲ b) ಶಕ್ತಿಯ ಹರಿವು

c) ಆಹಾರ ಸರಪಳಿ d) ಪರಿಸರ ಪಿರಮಿಡ್

28. Decomposers are _____ organisms.

a) Heterotrophic b) Chemotrophic

c) Photosynthetic d) Autotrophic

ವಿಘಟಕ ಜೀವಿಗಳು _____ ಜೀವಿಗಳು.

a) ಭಿನ್ನ ಪೋಷಿತ b) ರಾಸಾಯನಿಕ ಪೋಷಿತ

c) ದ್ಯುತಿ ಸಂಶ್ಲೇಷಿತ d) ಸ್ವ ಪೋಷಿತ

SPACE FOR ROUGH WORK

29. Ecological succession occurring on rocks is called

a) Hydrosere b) Psamosere

c) Lithosere d) Halosere

ಕಲ್ಲು ಬಂಡೆಗಳ ಮೇಲೆ ನಡೆಯುವ ಅನುಕ್ರಮಣವನ್ನು _____ ಎಂದು ಕರೆಯುತ್ತಾರೆ.

a) ಹೈಡ್ರೋಸೀರ್ b) ಸ್ಯಾಮೋಸೀರ್

c) ಲಿಥೋಸೀರ್ d) ಹ್ಯಾಲೋಸೀರ್

30. The pyramid number in a forest ecosystem is

a) Inverted b) Upright

c) Linear d) Rhomboidal

ಕಾಡು ಪರಿಸರ ವ್ಯವಸ್ಥೆಯಲ್ಲಿ ಸಂಖ್ಯಾ ಗೋಪುರವು

a) ತಲೆಕೆಳಗೆ b) ಮೇಲ್ಮುಖ

c) ನೇರವಾದ d) ವಜ್ರಾಕೃತಿಯ

31. Biodiversity hotspots are

a) Have more endemic species

b) Have more number of population

c) The organisms at hottest places of world

d) Only present in the sea

ಜೀವವೈವಿಧ್ಯತೆಯ ಬಿಸಿಲೆಗಳು

a) ಹೆಚ್ಚಿನ ಪ್ರಾಂತೀಯ ಪ್ರಭೇದಗಳನ್ನು ಹೊಂದಿವೆ

b) ಹೆಚ್ಚಿನ ಜನಸಂಖ್ಯೆಯನ್ನು ಹೊಂದಿವೆ

c) ವಿಶ್ವದ ಅತೀ ಉಷ್ಣ ಪ್ರದೇಶದ ಪ್ರಾಣಿಗಳು

d) ಸಮುದ್ರದಲ್ಲಿ ಮಾತ್ರ ಇರುತ್ತವೆ

SPACE FOR ROUGH WORK

32. Shola is

a) The vegetation of valley
b) Coniferous forest
c) Plants grow near sea coast
d) Endangered species

ಶೋಲಾ ಎನ್ನುವುದು

a) ಕಣಿವೆಯ ಕಾಡು
b) ತ್ರಿಕೋನ ಮರಗಳುಳ್ಳ ಕಾಡು
c) ಸಮುದ್ರ ತೀರದಲ್ಲಿ ಬೆಳೆಯುವ ಸಸ್ಯಗಳು
d) ಏನಾಶದ ಅಂಚಿನಲ್ಲಿರುವ ಜೀವ ಪ್ರಬೇಧ

33. Expansion of W. W. F. is

a) World Wide Forests
b) World Wide Fun
c) World Wide Fund for Nature
d) World Wrestling Fun

ಡಬ್ಲ್ಯೂ. ಡಬ್ಲ್ಯೂ. ಎಫ್. ನ ವಿಸ್ತೃತ ರೂಪ

a) ವರ್ಲ್ಡ್ ವೈಡ್ ಫಾರೆಸ್ಟ್ಸ್
b) ವರ್ಲ್ಡ್ ವೈಡ್ ಫನ್
c) ವರ್ಲ್ಡ್ ವೈಡ್ ಫಂಡ್ ಫಾರ್ ನೇಚರ್
d) ವರ್ಲ್ಡ್ ರೆಸ್ಲಿಂಗ್ ಫನ್

34. Example for In-situ conservation

a) Botanical gardens
b) Zoo
c) Biosphere
d) All the above

ಇದು ನೆಲೆ ಸಂರಕ್ಷಣೆಗೆ ಉದಾಹರಣೆ

a) ಸಸ್ಯೋದ್ಯಾನ
b) ಪ್ರಾಣಿ ಸಂಗ್ರಹಾಲಯ
c) ಜೀವಗೋಳ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

35. Khaziranga National Park is

a) Ramsar site
b) Arid zone
c) Dry land
d) Desert

ಕಾಝಿರಂಗ ರಾಷ್ಟ್ರೀಯ ಉದ್ಯಾನವು

a) ರಾಮ್‌ಸಾರ್ ಸ್ಥಳ
b) ಶುಷ್ಕವಲಯ
c) ಒಣ ಭೂಮಿ
d) ಮರುಭೂಮಿ

SPACE FOR ROUGH WORK

SS – 775 -14-

36. The biosphere reserve of India is

a) Chilka lake b) Bandipur

c) Great Nicobar d) Banneraghatta

ಭಾರತದ ಜೀವಗೋಳ ಸಂರಕ್ಷಣಾ ಸ್ಥಳ

a) ಚಿಲ್ಕ ಸರೋವರ b) ಬಂಡೀಪುರ c) ಗ್ರೇಟ್ ನಿಕೋಬಾರ್ d) ಬನ್ನೇರುಘಟ್ಟ

37. Indian Biogeographical zones are _____ in number.

a) 10 b) 2

c) 25 d) 15

ಭಾರತ ಜೀವಿ ಭೌಗೋಳಿಕ ಪ್ರದೇಶಗಳ ಸಂಖ್ಯೆ

a) 10 b) 2

c) 25 d) 15

38. Organic waste is a _____ waste.

a) Non-combustible b) Biodegradable

c) Non-biodegradable d) Radioactive

ಸಾವಯವ ತ್ಯಾಜ್ಯವು _____ ತ್ಯಾಜ್ಯ.

a) ದಹನಗೊಳ್ಳದ b) ಜೈವಿಕ ವಿಘಟನೆಯಾಗುವ

c) ಜೈವಿಕ ವಿಘಟನೆಯಾಗದ d) ವಿಕಿರಣ

39. The word "Tsu" in Tsunami stands for

a) Wave b) Harbour c) Sea d) Island

ಸುನಾಮಿಯಲ್ಲಿ 'ಸು' ಈ ಪದವು _____ ಸೂಚಿಸುತ್ತದೆ.

a) ಅಲೆ b) ಬಂದರು c) ಸಮುದ್ರ d) ದ್ವೀಪ

SPACE FOR ROUGH WORK

40. Incineration is a

a) Combustion process
b) Oxidation process
c) Combustion and oxidation process
d) None of the above

ದಹಿಸುವುದು _____ ಕ್ರಿಯೆ.

a) ದಹನ ಕ್ರಿಯೆ
b) ಆಕ್ಸಿಡೀಕರಣ
c) ದಹನ ಮತ್ತು ಆಕ್ಸಿಡೀಕರಣ
d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

41. TVs, DVDs, PCs, floppies etc. generate

a) Combustible waste
b) E-waste
c) Organic waste
d) Nuclear waste

ಟಿ.ವಿ.ಗಳು, ಡಿ.ವಿ.ಡಿ. ಗಳು ಮತ್ತು ಕಂಪ್ಯೂಟರ್ ಗಳು, ಫ್ಲಾಪಿಗಳು _____ ಉತ್ಪತ್ತಿ ಮಾಡುತ್ತವೆ.

a) ದಹನವಾಗುವ ತ್ಯಾಜ್ಯ
b) ಇ-ತ್ಯಾಜ್ಯ
c) ಕಾರ್ಬನಿಕ್ ತ್ಯಾಜ್ಯ
d) ಪರಮಾಣು ತ್ಯಾಜ್ಯ

42. Preparedness, response, recovery, prevention are the measures for

a) Disaster management
b) Pollution control
c) Fund management
d) Weather management

ಪೂರ್ವಸಿದ್ಧತೆ, ಪ್ರತಿಕ್ರಿಯೆ, ಪುನರುದ್ಧಾರ, ತಡೆಗಟ್ಟುವಿಕೆ ಇವುಗಳು _____ ರ ಕ್ರಮಗಳು.

a) ವಿಕೋಪ ನಿರ್ವಹಣೆ
b) ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ
c) ಹುಂಡಿ ನಿರ್ವಹಣೆ
d) ಹವಾಮಾನ ನಿರ್ವಹಣೆ

43. The most important Indoor Air Pollutant

a) SO_2 b) CO_2 c) NO_2 d) H_2O

ಅತಿ ಹೆಚ್ಚು ಮುಖ್ಯವಾದ ಮನೆಯೊಳಗಿನ ವಾಯುಮಲಿನಕಾರಕ

a) SO_2 b) CO_2 c) NO_2 d) H_2O

SPACE FOR ROUGH WORK

44. Taj Mahal at Agra may be damaged by

a) Acid Rain
b) Natural Rain
c) Hydrogen
d) Oxygen

ಆಗ್ರಾದಲ್ಲಿರುವ ತಾಜ್ ಮಹಲ್ ಅನ್ನು _____ ಹಾಳುಗೆಡವಬಹುದು.

a) ಆಮ್ಲ ಮಳೆ
b) ಸ್ವಾಭಾವಿಕ ಮಳೆ
c) ಜಲಜನಕ
d) ಆಮ್ಲಜನಕ

45. Unit of noise

a) Decibel
b) Watts
c) Ohms
d) Calories

ಶಬ್ದ ಅಳೆಯುವ ಮಾನ

a) ಡೆಸಿಬಲ್
b) ವ್ಯಾಟ್ಸ್
c) ಫೋಮ್ಸ್
d) ಕ್ಯಾಲೋರಿಸ್

46. Chlorofluorocarbons are used in

a) Automobiles
b) Refrigerators as coolants
c) Paints
d) Nuclear reactors as coolants

ಕ್ಲೊರೋಫ್ಲೊರೋ ಕಾರ್ಬನ್‌ಗಳನ್ನು ಇಲ್ಲಿ ಬಳಸುತ್ತಾರೆ

a) ವಾಹನಗಳು
b) ತಂಪುಕಾರಕಗಳಾಗಿ ರೆಫ್ರಿಜರೇಟರ್ಸ್‌ಗಳಲ್ಲಿ
c) ಬಣ್ಣಗಳಲ್ಲಿ
d) ತಂಪುಕಾರಕಗಳಾಗಿ ಪರಮಾಣು ಸ್ಥಾವರಗಳಲ್ಲಿ

SPACE FOR ROUGH WORK

47. Smog is a combination of

a) Water vapour and dust
b) Gases and dust
c) Gases with water vapour and dust
d) Water vapour and oil droplets

'ಸ್ಮಾಗ್' ಯಾವುದರ ಸಂಯೋಜನೆ ?

a) ನೀರಾವಿ ಮತ್ತು ಧೂಳು
b) ಅನಿಲಗಳು ಮತ್ತು ಧೂಳು
c) ಅನಿಲಗಳು ನೀರಾವಿಯೊಡನೆ ಮತ್ತು ಧೂಳು
d) ನೀರಾವಿ ಮತ್ತು ಕೈಲ ತುಂತುರುಗಳು

48. PAN, O_3 etc. are considered to be

a) Primary pollutant
b) Secondary pollutant
c) Degradable pollutant
d) Insignificant pollutant

PAN, O_3 ಮುಂತಾದವನ್ನು ಹೀಗೆ ಪರಿಗಣಿಸುತ್ತಾರೆ.

a) ಪ್ರಾಥಮಿಕ ಮಲಿನಕಾರಿ
b) ದ್ವಿತೀಯ ಮಲಿನಕಾರಿ
c) ವಿಘಟನೆಯಾಗುವ ಮಲಿನಕಾರಿ
d) ಗಮನಾರ್ಹವಲ್ಲದ ಮಲಿನಕಾರಿ

49. London smog occurred in the year

a) 1957
b) 1952
c) 1958
d) 1950

ಲಂಡನ್ನಿನ ಸ್ಮಾಗ್ ಉಂಟಾದ ವರ್ಷ

a) 1957
b) 1952
c) 1958
d) 1950

50. Water (Prevention and Control of Pollution) Act enacted in the year

a) 1981 b) 1974 c) 1970 d) 1980

ಜಲ (ನಿಯಂತ್ರಣ ಮತ್ತು ಮಾಲಿನ್ಯ ತಡೆಗಟ್ಟುವ) ಕಾಯ್ದೆ ಜಾರಿಯಾದ ವರ್ಷ

a) 1981 b) 1974 c) 1970 d) 1980

SPACE FOR ROUGH WORK

SS – 775 -18-

51. Rain water is turned acidic when its pH falls below

a) 5.6 b) 6.6 c) 7.6 d) 8.6

ಮಳೆ ನೀರು ಆಮ್ಲೀಯವಾಗಲು ಅದರ pH _____ ಕ್ಕಿಂತ ಕಡಿಮೆಗೊಳ್ಳುವುದು.

a) 5.6 b) 6.6 c) 7.6 d) 8.6

52. Oxides of sulphur and nitrogen are the major source of

a) Green house gases b) Base forming gases

c) Acid rain d) Neutral gases

ಯಾವುದಕ್ಕೆ ಗಂಧಕದ ಆಕ್ಸೈಡ್ ಮತ್ತು ಸಾರಜನಕದ ಆಕ್ಸೈಡ್‌ಗಳು ಪ್ರಮುಖ ಮೂಲಗಳು ?

a) ಹಸಿರು ಮನೆ ಅನಿಲಗಳು b) ಆಮ್ಲ ಮಳೆ

c) ಪ್ರತ್ಯಾಮ್ಲ ಉಂಟುಮಾಡುವ ಅನಿಲಗಳು d) ತಟಸ್ಥ ಅನಿಲಗಳು

53. Waste land reclamation refers to

a) Converting fertile land to waste land

b) Growing plants

c) Cutting trees

d) Converting waste land to fertile land

ಬಂಜರು ಭೂಮಿ ಅಭಿವೃದ್ಧಿ _____ ಕುರಿತದ್ದು.

a) ಫಲವತ್ತಾದ ಭೂಮಿಯನ್ನು ಬಂಜರು ಮಾಡುವುದು

b) ಸಸ್ಯಗಳನ್ನು ಬೆಳೆಯುವ

c) ಸಸ್ಯಗಳನ್ನು ಕಡಿಯುವ

d) ಬಂಜರು ಭೂಮಿಯನ್ನು ಫಲವತ್ತತೆಗೆ ಮಾರ್ಪಡಿಸುವುದು

SPACE FOR ROUGH WORK

_____ is the test used to detect the presence of HIV.

a) ELSA
b) LESA
c) ELISA
d) LEISA

ಹೆಚ್.ಐ.ವಿ. ಇರುವಿಕೆಯನ್ನು ತಿಳಿಯಲು _____ ಬಳಸಲಾಗುತ್ತದೆ.

a) ಇ.ಎಲ್.ಎಸ್.ಎ
b) ಎಲ್.ಇ.ಎಸ್.ಎ
c) ಇ.ಎಲ್.ಐ.ಎಸ್. ಎ
d) ಎಲ್.ಇ.ಐ.ಎಸ್.ಎ.

55. Bhagyalaxmi scheme is aiming at
a) Encouraging small savings
b) Empowering women
c) Promoting the birth of girl child
d) Promoting the birth of twins

'ಭಾಗ್ಯ ಲಕ್ಷ್ಮಿ' ಯೋಜನೆಯ ಗುರಿ
a) ಸಣ್ಣ ಉಳಿತಾಯ ಪ್ರೋತ್ಸಾಹ
b) ಸ್ತ್ರೀ ಸಬಲೀಕರಣ
c) ಹೆಣ್ಣು ಮಗುವಿನ ಜನನವನ್ನು ಪ್ರೋತ್ಸಾಹಿಸುವುದು
d) ಅವಳಿಗಳ ಜನನವನ್ನು ಪ್ರೋತ್ಸಾಹಿಸುವುದು

56. GPS stands for
a) Geographic Public System
b) Geological Petro System
c) Genetic Phyto System
d) Global Positioning System

ಜಿ.ಪಿ.ಎಸ್. ಅಂದರೆ
a) ಜಿಯೋಗ್ರಾಫಿಕ್ ಪಬ್ಲಿಕ್ ಸಿಸ್ಟಮ್
b) ಜಿಯೋಲಾಜಿಕಲ್ ಪೆಟ್ರೋ ಸಿಸ್ಟಮ್
c) ಜನೆಟಿಕ್ ಫೈಟೋ ಸಿಸ್ಟಮ್
d) ಗ್ಲೋಬಲ್ ಪೋಜಿಶನಿಂಗ್ ಸಿಸ್ಟಮ್

SPACE FOR ROUGH WORK

57. Official Date of Earthday is on

a) April 22 b) March 21 c) May 22 d) June 5

ಭೂದಿನದ ಸರ್ಕಾರಿ ದಿನಾಂಕವು

a) ಎಪ್ರಿಲ್ 22 b) ಮಾರ್ಚ್ 21 c) ಮೇ 22 d) ಜೂನ್ 5

58. The highest rainfall noticed in Karnataka

a) Somavarpet b) Kudremukha

c) Agumbe d) Udupi

ಕರ್ನಾಟಕದಲ್ಲಿ ಅತಿ ಹೆಚ್ಚು ಮಳೆ ಬೀಳುವ ಪ್ರದೇಶ

a) ಸೋಮವಾರ ಪೇಟೆ b) ಕುದುರೆಮುಖ

c) ಆಗುಂಬೆ d) ಉಡುಪಿ

59. International Women's Day is observed on

a) May 8 b) March 8

c) December 8 d) November 8

ಅಂತರರಾಷ್ಟ್ರೀಯ ಮಹಿಳಾ ದಿನಾಚರಣೆಯನ್ನು _____ರಂದು ಆಚರಿಸಲಾಗುವುದು.

a) ಮೇ 8 b) ಮಾರ್ಚ್ 8

c) ಡಿಸೆಂಬರ್ 8 d) ನವೆಂಬರ್ 8

60. Which Indian State has highest population density ?

a) Kerala b) Delhi

c) Bihar d) Karnataka

ಭಾರತದ ಯಾವ ರಾಜ್ಯವು ಅತಿ ಹೆಚ್ಚು ಜನ ಸಾಂದ್ರತೆಯನ್ನು ಹೊಂದಿದೆ ?

a) ಕೇರಳ b) ದೆಹಲಿ

c) ಬಿಹಾರ್ d) ಕರ್ನಾಟಕ

SPACE FOR ROUGH WORK

61. Human population means

a) Group of species

b) Group of communities

c) Group of people of a Nation

d) Group of men

ಮಾನವ ಜನಸಂಖ್ಯೆ ಅಂದರೆ

a) ಪ್ರಭೇದಗಳ ಗುಂಪು

b) ಸಮುದಾಯಗಳ ಗುಂಪು

c) ಒಂದು ದೇಶದ ಜನ ಸಮುದಾಯ

d) ಗಂಡಸರ ಗುಂಪು

62. Bery Bery is caused by the deficiency of _____ Vitamin.

a) A

b) B

c) D

d) C

ಬೆರಿ ಬೆರಿ ಕಾಯಿಲೆಯು _____ ವಿಟಮಿನ್ ಕೊರತೆಯಿಂದ ಬರುತ್ತದೆ.

a) ಎ

b) ಬಿ

c) ಡಿ

d) ಸಿ

63. Biomedical wastes are generated from

a) Hospitals

b) Chemical industries

c) Dyeing units

d) Atomic power plants

ಜೀವ ವೈದ್ಯಕೀಯ ತ್ಯಾಜ್ಯಗಳು _____ ದಿಂದ ಉತ್ಪತ್ತಿಯಾಗುತ್ತದೆ.

a) ಆಸ್ಪತ್ರೆ

b) ರಾಸಾಯನಿಕ ಕೈಗಾರಿಕೆಗಳು

c) ಬಣ್ಣಹಾಕುವ ಕೇಂದ್ರದಿಂದ

d) ಪರಮಾಣು ವಿದ್ಯುತ್ ಸ್ಥಾವರಗಳು

SPACE FOR ROUGH WORK

64. Vermiculture involves the use of _____ for farming.

a) Microorganisms b) Earthworms

c) Fertilizers d) Pesticides

ವರ್ಮಿ ಕೃಷಿ ಬೇಸಾಯ ಮಾಡಲು _____ ಉಪಯೋಗಿಸುತ್ತಾರೆ.

a) ಸೂಕ್ಷ್ಮಾಣು ಜೀವಿಗಳು b) ಎರೆಹುಳುಗಳು

c) ರಾಸಾಯನಿಕ ಗೊಬ್ಬರಗಳು d) ಕೀಡೆನಾಶಕಗಳು

65. Acid rain is caused by increase in the atmosphere concentration of

a) O_3 and CO b) SO_2 and NO_2

c) SO_3 and CO d) CO_2 and CO

ಆಮ್ಲಮಳೆಯು ವಾಯುಗೋಳದ ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಹೆಚ್ಚಾಗಿ ಕೇಂದ್ರೀಕರಣಗೊಳ್ಳುವುದರಿಂದ ಉಂಟಾಗುತ್ತದೆ

a) O_3 ಮತ್ತು CO b) SO_2 ಮತ್ತು NO_2

c) SO_3 ಮತ್ತು CO d) CO_2 ಮತ್ತು CO

66. Alpine vegetation contains

a) Trees b) Shrubs c) Herbs d) Bamboo

ಆಲ್ಪೈನ್ ಸಸ್ಯರಾಶಿ ಇದನ್ನು ಹೊಂದಿದೆ

a) ಮರಗಳು b) ಪೊದೆಗಳು c) ಗಿಡಗಳು d) ಬಿದಿರು

67. Dowry Prohibition Act was enforced in

a) 1999 b) 2005 c) 2009 d) 1961

ವರದಕ್ಷಿಣೆ ನಿರ್ಬಂಧ ಕಾಯ್ದೆ ಜಾರಿಗೆ ಬಂದ ವರ್ಷ

a) 1999 b) 2005 c) 2009 d) 1961

SPACE FOR ROUGH WORK

68. Expand NCW.

a) National Children Commission

b) National Commission for Women

c) National Committee for Women

d) Natural Commission for Women

ಎನ್.ಸಿ.ಡಬ್ಲ್ಯೂ. ನ ವಿಸ್ತರಣಾ ರೂಪ

a) ರಾಷ್ಟ್ರೀಯ ಮಕ್ಕಳ ಆಯೋಗ

b) ರಾಷ್ಟ್ರೀಯ ಮಹಿಳಾ ಆಯೋಗ

c) ರಾಷ್ಟ್ರೀಯ ಮಹಿಳಾ ಸಮಿತಿ

d) ನೈಸರ್ಗಿಕ ಮಹಿಳಾ ಆಯೋಗ

69. The Watershed Management Programme is started in India _____ in the year.

a) 1991 b) 1993 c) 1996 d) 1999

ಭಾರತದಲ್ಲಿ ಜಲಾನಯನ ನಿರ್ವಹಣೆ ಕಾರ್ಯಕ್ರಮ ಆರಂಭವಾಗಿದ್ದ ವರ್ಷ

a) 1991 b) 1993 c) 1996 d) 1999

70. The Broader portion of the Pyramid is called

a) Square b) Triangle

c) Base d) Apex

ದೊಡ್ಡದಾಕಾರ ಹೊಂದಿರುವ ಪಿರಾಮಿಡ್ಡಿಗೆ ಏನೆಂದು ಕರೆಯುತ್ತಾರೆ ?

a) ಚೌಕ b) ತ್ರಿಭುಜ

c) ಬೇಸ್ d) ಎಪೆಕ್ಸ್

SPACE FOR ROUGH WORK









T. JOHN
COLLEGE

AFFILIATED TO BANGALORE UNIVERSITY
APPROVED BY AICTE
ISO CERTIFIED NAAC ACCREDITED




COURSE PLAN

SEMESTER: I







DEPARTMENT OF HOTEL MANAGEMENT

(BACHELOR OF HOTEL MANAGEMENT)

88/1 GOTTIGERE
BANNERGHATTA ROAD
BANGALORE-83






1.2 FOOD AND BEVERAGE PRODUCTION- I

THEORY **40 HRS**

CLASS PLAN:

MODULE 1: PROFESSIONAL STANDARDS AND ETHICS FOR FOOD HANDLERS

1.1 Personal hygiene
1.2 General kitchen hygiene and sanitation
1.3 HACCP (Hazard analysis and critical control point)
1.4 Ethics in the kitchen.

MODULE 2: COOKING FUELS AND KITCHEN EQUIPMENT

2.1 Types of cooking fuels
2.2 Uses of cooking fuels
2.3 Safety precautions
2.4 Classifications of kitchen equipment uses of kitchen equipment's
2.5 Uses of kitchen equipment's
2.6 Care and maintenance

MODULE 3: METHODS OF COOKING

3.1 Classification, principles, equipment's required.
3.2 commodities that can be used menu examples for – Boiling, Steaming, Pouching, Blanching, Sautéing, Grilling, Roasting, Baking, Braising, Broiling Microwaving, Frying, Stewing and En Papillote.

MODULE 4: PROCESSING OF COMMODITIES

4.1 Cleaning and pre-preparation of food commodities
4.2 Quality points and cuts of fruits, vegetables, fish, lamb, beef pork, poultry and game.

MODULE 5: INDIAN CUISINE

5.1 Characteristics, Ingredients used, equipment used, cooking methods for regional cuisines- punjabi, Awadhi, Bengali, Hyderabad, Chettinad, coastal India, Karnataka.
5.2 Glossary of Indian culinary terms and popular dishes.

MODULE 6: FOOD COMMODITIES

6.1 Classifications of ingredients
6.2 Characteristics of ingredients
6.3 uses of ingredients
6.4 Foods and its relation to health
6.5 Definition of basal metabolism
6.6 Major nutrients- function, sources and deficiency of carbohydrates proteins, fat, vitamins, minerals water and fiber.

CLASS PLAN:

Subject: **FOOD AND BEVERAGE PRODUCTION- I** Subject Code:

Total No. of Hours: 40 IA Marks: 30

Theory Marks: 70

SL.NO.	MODULE	TOPICS / CHAPTERS	HRS ALLOTTED
1	**1**	PERSONAL HYGIENE	1
2		GENERAL KITCHEN HYGIENE	1
3		HACCP	1
4		KITCHEN ETHICS	1
5	**2**	TYPES OF COOKING FUELS	1
6		USAGES OF COOKING FUELS	1
7		SAFETY PRECAUTIONS	1
8		CLASSIFICATION OF KITCHEN EQUIPMENTS	1
9		USAGE OF EQUIPMENTS	1
10		CARE AND MAINTENANCE	1
11	**3**	CLASSIFICATION OF COOKING METHODS	1
12		PRINCIPLES OF COOKING	2
13		EQUIPMENTS REQUIRED	1
14		COOKING METHODS	4
15	**4**	PRE PREPARATIONS OF COMMODITIES	1
16		QUALITY FACTORS	1
17		CUTS OF FRUITS & VEGETABLES	2
18		CUTS OF MEATS	2
19	**5**	CHARACTERSTICS OF REGIONAL CUISINES	2
20		INGREDIENTS USED	2
21		POPULAR DISHES	1
22		INDIAN CULINARY TERMS	1
23	**6**	CLASSIFICATION OF INGREDIENTS	2
24		CHARACTERISTICS OF INGREDIENTS	1
25		USAGES OF INGREDIENTS	2
26		FOOD AND HEALTH	2
27		METABOLISM	1
28		FOOD AND NUTRIENTS	2

MODULE- 1

2 MARKS QUESTION:

1. What is hygiene?
2. Expand HACCP.
3. Name two ethics of kitchen?
4. Define sanitation?
5. Mention two general kitchen hygiene's in the kitchen?

6 MARKS QUESTIONS

1. Explain the rules of general kitchen?
2. Expand HACCP. And explain the rules and regulations of HACCP.
3. Explain the importance of ethics in kitchen?

14 MARKS QUESTIONS

1. Explain the personal hygiene briefly.
2. Write the differences between hygiene and sanitation.

MODULE - 2

2 MARKS QUESTIONS:

1. Name any four cooking fuels used in hotel/kitchen?
2. Mention any two uses of cooking fuels?
3. What is colander and mandolin?
4. Name two brand of equipment's which are used in the kitchen?
5. Explain the term bain-marie.
6. What is Chinois?
7. Name four heat generating equipment's?

6 MARKS QUESTIONS:

1. Explain the different types of cooking fuels with one example each?
2. Name ten uses of kitchen equipment's and their importance.
3. Explain the care and maintenance of kitchen equipment's?
4. Write short notes on any three cooking fuels?
5. Draw a neat diagram of all-purpose knife and mark the parts?

14 MARKS QUESTIONS:

1. Explain briefly the cooking fuels and its importance?
2. Write the uses of cooking fuels and its safety precautions?
3. Classify the kitchen equipment's with its care and maintenance?
4. Why one should care about maintenance of kitchen equipment's, Justify?
5. Explain the ten kitchen equipment's, its uses, care and maintenance.

MODULE - 3

2-MARKS QUESTIONS:

1. What is boiling temperature of water?
2. What is danger zone?
3. Explain dripping?
4. Explain tempering?
5. What is duxelle?
6. What is thawing?
7. What is smoking point?
8. What is coagulation?
9. Explain braising?
10. What is barbecue?
11. What is baking?
12. What is crackling?
13. What is skimming?
14. What is blanching?

6-MARKS QUESTIONS:

1. Explain the principle of cooking food
2. Explain the aims and objectives of cooking food?
3. Explain briefly the action of heat on food commodities?
4. Write ten uses of cooking food?
5. Classify the different types of rice and explain the selection and cooking methods of rice.
6. Draw salamander. Explain its uses and care to be taken while using.
7. Cooker is considered to be both an art and science explain?

14-MARKS QUESTIONS:

1. Draw a neat diagram of microwave oven and explain its working.
2. Explain in detail the various cooking fuels with its merits and demerits?

3. Explain the following terms: En-Papillote, blanching, poaching, grilling, and broiling baking stewing. Briefly.

MODULE - 4

2 MARKS QUESTIONS:

1. What is lard?
2. What is caviar?
3. Give the English equivalent of shingara and akhrot?
4. Explain the term mirepoix.
5. Name two white meats?
6. Name the different kinds of poultry?
7. Name two cuts of fish?
8. What are offal's? Give examples.
9. What are bulbs? Give two examples.
10. What are mussels?
11. What is thawing?
12. What is baron of lamb?
13. What is game .Give any two examples.
14. Give the English meaning of canard, poulet, champignons and aborigines
15. Explain darne.
16. Leg of mutton is cut of meat from _____ animal. What is baron of lamb?

6 MARKS QUESTIONS:

1. Explain the cleaning and pre-preparation of food commodities?
2. Explain the different cuts of vegetables with a neat diagram.
3. Classify vegetables with cooking methods.
4. Explain in detail about capital and operational equipment's used in kitchen.
5. How is quality of lamb checked?
6. Classify fruits with three examples of each. And list their quality points.
7. Write the selection points of shell fish.
8. How would you select good quality of fish?

14 MARKS QUESTIONS:

1. Explain the cuts of chicken with neat diagram.
2. Classify vegetables with two examples of each and list the quality points
3. Discuss the different herbs used in the kitchen.
4. Classify fish with two examples each. List the selection points for fish.
5. Draw the cuts of lamb and explain the cuts in detail with menu examples.
6. Illustrate the selection factors of beef. Explain cuts and uses with the help of neat diagram.
7. Explain the slaughtering procedure of chicken.

MODULE - 5

2-MARKS QUESTIONS:

1. What is hollandaise?
2. List three reasons for marinating meat?
3. What is batter?
4. What is seasoned flour?
5. What is phirnee?
6. What is parmesan?
7. Explain Au-gratin?
8. Name the fine herbs?
9. Explain saffron?
10. Give the English equivalent of: Moong and aubergine. Elachi and saunf
11. Define MSG.
12. What is myosin
13. What is cuisine simple and haute cuisine?
14. What is roux?
15. Explain mayonnaise.
16. Explain fusion cuisine.
17. What are spices?
18. Explain chapatti?
19. Explain korma?
20. What is other name given for Indian oven _____
21. Name any two dairy products used in the kitchen.
22. Name two ingredients used in Chettinad cuisine
23. Name two desserts of Punjab and Awadhi cuisines.

6-MARKS QUESTIONS:

1. Explain the characteristics of Indian cuisine
2. List ten equipment's used in Indian cuisine with examples of each?
3. Write the two different methods used for cooking with different regional cuisines.

14-MARKS QUESTIONS:

1. Explain the characteristics of different regional Indian cuisines briefly.
2. Write a short note on: Punjabi, Karnataka, coastal India Awadhi and Hyderabad.
3. Discuss in detail the foundation ingredients.

MODULE - 6

2 MARKS QUESTIONS:

1. Give two examples of vitamin E & D?
2. Define metabolism.
3. Write two functions of carbohydrates with examples.
4. Give some examples vitamins.
5. Why food is necessary to the human health?
6. What is balance diet?

6 MARKS QUESTIONS

1. Explain the characteristics of ingredients with example?
2. Why food is important with its relation to health?
3. Explain the functions of carbohydrates, Fat, Vitamins?
4. Explain the functions and deficiency of carbohydrates.
5. What are the functions of fat and oils in food production?
6. Give any four functions each of carbohydrates and protein in the body?

14 MARKS QUESTIONS

1. Write a brief note on vitamins, minerals, water and fibres.
2. Classify the ingredients and their features/characteristics briefly?
3. Mention the ten uses of ingredients? Give two examples of each.
4. Write short notes on essential Fatty acids, saignamt, and basal metabolism.

Faculty Signature:

1.3 FOOD AND BEVERAGE SERVICE- I

Max Marks: 70 **Internal Marks: 30**

Module 1: FOOD AND BEVERAGE SERVICE INDUSTRY 06**hrs**

Introduction to food and beverage service, Types of catering operations

- Commercial, welfare, transport, others
-

Module 2: ATTRIBUTES OF FOOD AND BEVERAGE SERVICE PERSONNEL **04hrs**

Grooming, Sense of urgency.

Module 3: FOOD AND BEVERAGE SERVICE ORGANIZATION 10**hrs**

Organization of the F & B Department,
Job specification for the F & B department,
Job Descriptions (Directeur de Restaurant, Maitred'hotel, Chef de Rang RSOT, Bus boy, Hostess, Sommelier, Chef d'etage.

Module 4: FOOD AND BEVERAGE SERVICE OUTLETS **08hrs**

Restaurant, Coffee shop, Room service, Bar, Banquets.

Module 5: FOOD AND BEVERAGE SERVICE EQUIPMENTS 12**hrs**

Furniture, Linen, Crockery, Silverware, Glassware, Disposables, Special Equipment's (Trolleys, Electrical Equipment's etc.)

REFERENCE* BOOKS*:

1. Managing Food and Beverage Operations – A. H & L. A
2. Food and Beverage Service-Dennis R Lillicrap
   Vijay dhawan, Food and beverage service.
3. Basic Restaurant etiquettes.(S.Chand)

CLASS PLAN

Subject: Food and Beverage Service- I	Subject Code: 1.3
Total No. of Hours: 40 HRS	IA Marks: 30
Theory Marks: 70	

SL. NO	MODULE	TOPIC / CHAPTER	HOURS ALLOTED
1	1	INTRODUCTION	1
2	1	TYPES OF CATERING OPERATIONS	2
3	1	COMMERCIAL	1
4	1	WELFARE CATERING	1
5	1	TRANSPORT CATERING	1
6	2	INTRODUCTION OF F &B STAFF	1
7	2	ATTRIBUTES OF F &B STAFF	2
8	2	MANAGERIAL STAFF	1
9	3	ORGANIZATIONAL HIERARCHY	2
10	3	SMALL,MEDIUM,LARGE HOTELS	2
11	3	JOB DESCRIPTION	2
12	3	JOB SPECIFICATION	2
13	3	F $ B OUTLET STAFF	2
14	4	FOOD AND BEVERAGE SERVICE	1
15	4	RESTAURANT	1
16	4	BAR	2
17	4	ROOM SERVICE	2
18	4	COFFEE SHOP	2
19	4	BANQUETS	2
20	5	FURNITURE	2
21	5	LINEN	2

22	5	CROCKERY	2
23	5	SILVERWARE	1
24	5	GLASSWARES	1
25	5	DISPOSABLES	1
26	5	SPECIAL EQUIPMENTS	1
Total			**40**

INTRODUCTION TO FOOD AND BEVERAGE SERVICE-I

FOOD AND BEVERAGE SERVICE INDUSTRY

MODULE 1

2 Marks Questions

1. What is Off-premises catering?
2. Differentiate between American and Silver Service?
3. What is leisure catering?
4. What do you mean by Transport catering?
5. What is Niche?
6. Describe about the on-premise catering??
7. Name the two main types of Food and Beverage service catering?
8. What is the other name of Non –profit sector?
9. What is Club catering?
10. What is Leisure-Linked Catering?

6 Marks Questions

1. Name five examples of Non-commercial catering?
2. Classify Food service Industry?
3. Explain the term transport catering?
4. Give a brief note about food and beverage establishments?
5. What do you mean by Airline catering? Discuss?
6. What are the operational timing for Cafeteria?

14 Marks Questions

1. What do you mean by Catering Management?
2. Explain in detail about Types of Catering Operations?
3. Explain the different types of Transport catering?

ATTRIBUTES OF FOOD AND BEVERAGE SERVICE PERSONNEL

MODULE 2

2 Marks Questions

1. Explain the term ‘Waiter’ in a Hotel?
2. What is a Manifesto?
3. What is a Sense of Urgency?
4. What is the Personal Hygiene maintain by waiter?
5. List the major difference in attributes of waiter?

6 Marks Questions

1. Explain the process of Technical skills for the Waiter in a Hotel?
2. Enumerate the Physical aspects of waiter?

3. What are the qualities of successful Waiter?
4. Explain the Attributes of the service staff?
5. List any three attributes of a Waiter?
6. Write briefly about the status of a waitperson in the Hotel industry?

14 Marks Questions

1. Explain in detail about the attributes of waiter?
2. Enumerate briefly about the status of a waiter in a Hotel industry?
3. What are the physical and psychological attributes of waiter?

FOOD AND BEVERAGE SERVICE ORGANIZATION

MODULE 3

2 Marks Questions

1. What is different classification of Hotels?
2. Describe the Medium level hotel?
3. What is are major difference between Job Descriptions and Specification?
4. What is Job Specifications?
5. What is the other name for floor waiter?
6. What is the French term for Restaurant manager?
7. What are the classify hotels?

6 Marks Questions

1. What are the different types of Food and Beverage outlets?
2. Explain the Job specification for Chef d etage?
3. Discuss the Organization Hierarchy for Medium hotel?
4. Explain roles and responsible for senior captain?
5. Explain the Job description for wine waiter?

14 Marks Questions

1. Describe the Job specifications and Descriptions for Maître d'hôtel?
2. Explain the Organizational Hierarchy of Five star hotel?
3. What are the difference between Specifications and descriptions?
4. What are Job specification for Bus boy?
5. Define Hostess?
6. Draw the Organizational chart of five star hotel in India. Detail?

FOOD AND BEVERAGE SERVICE OUTLETS

MODULE 4

2 Marks Questions

1. What are Bistro?
2. What is Specialty Restaurant?
3. What is Multicuisine Restaurant?
4. What is Banquets?
5. Enumerate the Brassiere?
6. What is Bar?
7. What is Banquets?
8. What is KOT?

6 Marks Questions

1. Explain the different Types of Restaurant?
2. Explain the Mise en place?
3. What is a cover?
4. Define Table d hote menu?
5. Explain Dummy waiter?
6. What is the other name for commisdebarasseur?

14 Marks Questions

1. Explain in your own words about the various Types of Restaurant?
2. Describe the various outlets in F& B areas. Explain it?
3. Differentiate the Restaurant and Coffee shop?
4. What are the different types of Restaurant in the hotel?
5. What are the Duties and Responsibilities of Restaurant staffs?

FOOD AND BEVERAGE SERVICE EQUIPMENTS

MODULE 5

2 Marks Questions

1. List the various linen used in Restaurant?
2. What are the cutlery?
3. What is crockery?
4. What are the registrations required for glassware's?
5. What is silverware?

6 Marks Questions

1. Explain the Layout for In-Room dining?
2. Explain the Cycle of service?
3. Explain the Errand card and RSOT Control sheet?
4. Explain the different special equipment's used in F & B outlets?
5. What is the different trolleys used in service industry?

14 Marks Questions

1. What are the Different furniture used in F& B outlets?
2. Explain the Glassware's used and its purposes. Explain in detail?
3. What are the polishing methods for maintain equipment's?
4. What are the use of Disposable equipment's?
5. What are the Special equipment's used in F & B Service?

Faculty Signature:

I-SEM BHM

COURSE MATRIX

1.4 FRONT OFFICE

Max Marks :70 **Internal Marks:30**

Module 1: INTRODUCTION TO TOURISM, HOSPITALITY AND HOTEL INDUSTRY **06 hrs.**

1.1 Tourism and Its Important.
1.2 Concept of Hospitality and Its Origin.
1.3 Origin, History, Growth And Development Of Hotel Industry-India And Global
1.4 Great personalities of the hotel industry.
1.5 Classification and Categorisation of Hotel Industry.

Module 2: HOTEL ORGANISATION **06 hrs.**

2.1 Introduction to Front Office.
2.2 Basic Activities of Front Office.
2.3 Layout and Equipments.
2.4 Various Sections of Front Office.
2.5 Organisational Structure of Front Office Department of a 5 Star And 3 Star Category Hotels.

Module 3: FRONT OFFICE PRODUCT **06 hrs.**

3.1 Types of Rooms.
3.2 Types Room Rate.
3.3 Types Plans.
3.4 Room Status Definitions.

Module 4: INTRODUCTION TO GUEST CYCLE HANDLING **04 hrs.**

4.1 Pre -arrival
4.2 Arrival
4.3 Occupancy
4.4 Departure& Post Departure.

Module 5: LOBBY AND BELL DESK OPERATION **08 hrs.**

5.1 Layout of the lobby
5.2 Concept of uniformed services and it's functions
5.3 Job description & specifications -Concierge, Bell Captain, Bell Boy, Doorman& Parking Valet.
5.4 Layout and equipments of bell desk
5.5 Luggage handling procedure on arrival-FIT, VIP and Group
5.6 Luggage handling procedure on departure- FIT, VIP and Group
5.7 Left baggage procedures.
5.8 Scanty baggage.

Module 6: RESERVATION CONCEPT **10 h rs.**

6.1 Sources and Modes.
6.2 Types- Guaranteed and Non-Guaranteed.
6.3 Reservation Record.
6.4 Method of Receiving Reservation.
6.5 Handling Special Request.
6.6 Confirmations of Reservations.
6.7 Modifications of Reservations.
6.8 Cancellation of Reservation.
6.9 Reservation Charts.
6.10 Records and Forms used.
6.11 Job Description and Specification- Reservation Assistant.

REFERENCE* BOOKS*:

4. Front Office Management, By:- S.K. Bhatnagar
5. Front Office Tarining Manual, By:- Sudhir Andrew
6. Hospitality Reception And Front Office, By:-JagmohanNegi
7. Front Office Management In Hotel, By:-Dr. B.K.Chakravarti
8. Hotel Front Office Operations And Management, By:- Jatashankar R. Tiwari
9. Hotel Reception, By:- White And Beckle.
10. Hotel Front Office:- James Bard
11. Hotels for Tourism Development:-JagmohanNegi.
12. Tourism Today:- Ratnadeep Singh

Class plan

Subject:1.4 FRONT OFFICE-I

Subject: FRONT OFFICE-I	Subject Code: 1.4
Total No. of Hours: 40	IA Marks: 30
Theory Marks:70	

Sl.No.	Module	Topics / Chapters	Hrs. Allotted
1.	1	Tourism & It's Importance	1
2.		Concept of hospitality and its origin	1
3.		Origin, history, growth and development of hotel industry-India and Global	1
4.		Great personalities of the hotel industry	1
5.		Classification and Categorisation of Hotel Industry.	2
6.	2	Introduction to Front Office	1
7.		Basic activities of Front Office	1
8.		Front Office Layout and Equipments	1
9.		Various sections of Front Office	1
10.		Organisational structure Front Office department of 5 star and 3 star category hotel	2
11.	3	Types of Rooms	3
12.		Types Room Rates	1
13.		Types Plans	1
14.		Room status definitions	1
15.	4	Pre-arrival	1
16.		Arrival	1
17.		Occupancy	1
18.		Departure	1
19.	5	Layout of Lobby	1
20.		Concept of uniformed services and its functions.	1
21.		Job description & specifications - Concierge, Bell Captain, Bell Boy, Doormen & Parking Valet.	1
22.		Layout and Equipments of Bell Desk.	1
23.		Luggage handling procedure on guest Arrival-FIT, VIP & Group.	1
24.		Luggage handling procedure on guest	1

		Departure- FIT, VIP & Group.	
25.		Left Luggage Procedure.	1
26.		Scanty Luggage Procedure.	1
27.	**6**	Sources and Modes.	1
28.		Types- Guaranteed and non-Guaranteed.	1
29.		Reservation Record.	1
30.		Methods of receiving reservation	1
31.		Handling special requests	1
32.		Confirmations & Modifications of Reservations	1
33.		Cancellation of Reservations	1
34.		Reservation Charts	1
35.		Records and Forms used.	1
36.		Job description and specification- Reservation Assistant	1

FRONT OFFICE-I
Module 1

2 Marks Questions

11. Define Hotel.
12. Define Hospitality.
13. Expand WTO.
14. What is HRACC?
15. Expand HRACC.
16. Define Tourism.
17. What is Candemonium Hotel?
18. What is Motel?
19. What is Floatel?
20. What is Downtown Hotel?
21. What is suburban Hotel?
22. What is Resort?
23. What is Boatel?
24. What isRoatel?
25. What isLoatel?
26. What isTransient Hotel?
27. What is Green/Eco Friendly Hotel?
28. What is Boutique Hotel?
29. What is Heritage Hotel?
30. What is Chain Hotels?
31. What does FHRAI stand for?

6 Marks Questions

1. What are the importances of Tourism?
2. Write a note on the concept of Hospitality and its origin.
3. How does the Hotel Industry originated and developed over the years?
4. What is a Star Categorisation System of hotels in India?
5. What are the various bases of classification of hotels?
6. Give two Types of hotels classified on the Location basis of classification.
7. Give two Types of hotels classified on the Ownership basis of classification.
8. Give two Types of hotels classified on the Size basis of classification.
9. Give two Types of hotels classified on the Clientele basis of classification.
10. Give two Types of hotels classified on the Length of Stay basis of classification.
11. What are the Area Specification of star categorisation for Rooms and Bathrooms?
12. Define hotel? And write about relation between hotel and hospitality.

14Marks Questions

1. Write a note on the development of Hotel Industry.
2. Classify the hotels on the basis of various basis of categorisation.
3. How the hotels are classified on the various concepts?
4. Explain the hotel industry development with important landmark.
5. Write down the importance of tourism and landmark of hotel industry?

Module 2

2 Marks Questions

1. Name the various section of Front Office.
2. Name the basic activities of Front Office.
3. Expand GRE/PRO.
4. What is Forex?
5. Name the various job positions reporting to the Bell Desk Captain.
6. Where does the Safe Deposit is located?
7. Who among the front office hierarchy, belong to account department?
8. What is the duty of Parking Valet in Hotel?
9. Write two important duties of Bell Boy in Hotel?
10. List the five equipments found at bell desk.

6Marks Questions

1. Draw the layout of Hotel.
2. Give list of equipments used in front office.
3. What are the various section of Front Office and write about their functions.
4. Draw the organization chart of 3 star category hotels.
5. Draw the organization chart of 5 star category hotels.

14Marks Questions

1. Draw the Layout of Hotel Lobby and explain its various parts.
2. Draw the organizational chart of 5 star hotels and explain.
3. Draw the organizational chart of 5 star hotels and explain.
4. What are the equipments found in Front Office? Explain their uses.
5. What are the various duties of Front Office personnel?

Module 3

2 Marks Questions

1. What is Cabana?
2. What is Penthouse?
3. What is Flat Rate?
4. What is Crib Rate?
5. What is Saleable Room?
6. What is Studio Room?
7. What is Rack Rate?
8. What is CVGR?

9. Expand CVGR.
10. What is Garni Hotel?
11. What is Day Rate?
12. What is Double Suit?
13. What is Duplex Suit?
14. What is Roll Away?
15. What is En-Pension?
16. What is Demi-Pension?
17. What id DNA?
18. What is Efficiency room?
19. Expand:- O.O.O./DND
20. What is American Plan?

6 Marks Questions

1. Give the names 10 different Types of Rooms.
2. What are the various Meal Plans?
3. List the various types of Room Rate.
4. Give the definitions:- Out of Order, Do Not Disturb, Skipper, Sleeper, No Show, Scanty Baggage, Saleable Room.
5. Which are most expensive rooms in hotel and why?

14 Marks Questions

1. What are the various Meal Plans? Explain each of them.
2. Write about different Rooms in hotel?
3. Write about different Rooms Rates in hotel?
4. How the rooms are sold with meal plans?

Module 4

2.Marks Questions

1. What is a Guest Cycle?
2. What are activities in Arrival Phage of Guest Cycle?
3. What are activities in Pre-Arrival Phage of Guest Cycle?
4. What are activities in Occupancy Phage of Guest Cycle?
5. What are activities in Departure Phage of Guest Cycle?

6 Marks Questions

1. What is Guest Cycle? Describe the Third Phage of Guest Cycle.
2. What is Guest Cycle? Describe the Second Phage of Guest Cycle.
3. What is Guest Cycle? Describe the First Phage of Guest Cycle.
4. What is Guest Cycle? Describe the Fourth Phage of Guest Cycle.
5. Draw the Guest Cycle and name it properly.

14 Marks Questions

1. Draw the Guest Cycle and explain in detail.
2. Enumerate the various activities of four stages of Guest Cycle.

3. Explain the guest's activities right from the time of first point of contact for enquiry till departure and post departure.

Module 5

2 Marks Questions

1. Who is FIT?
2. Who is VIP?
3. What is Live Move?
4. What is Dead Move?
5. What is Left Luggage?
6. Who is a Scanty Baggage Guest?
7. Which are the various Uniformed Services?
8. What is Paging?
9. What is Luggage-Down Time?
10. What is Luggage Out Pass?
11. Who prepares Luggage out Pass?
12. What is a Group?
13. What is "Order for Hotel Accommodation?
14. What is 'Ad-hoc group?'

6 Marks Questions

1. Draw the Lay out of Lobby.
2. Give the Job Description of Concierge.
3. Give the Job Description of Bell Desk Captain.
4. Give the Job Description of Bell Boy.
5. Give the Job Description of Doormen.
6. List the various Equipments of Bell Desk.
7. Write down the Left Luggage Procedure.
8. Write down the Scanty Baggage Procedure.
9. Write down the procedure of handling VIP Arrival.
10. Write down the procedure of Handling FIT Departure.

14 Marks Questions

1. Draw the layout of Lobby and explain.
2. Who are the uniformed staffs? Write about their duties.
3. Write a note on the VIP arrival in hotel.
4. What is the concept of Uniformed Services? Explain.
5. Write a note on the Group arrival in hotel.
6. Write a note on the FIT arrival in hotel.
7. Write a note on the Group Departure from hotel.
8. Write a note on the FIT Departure from hotel.

Module 6

2 Marks Questions

1. What is "No Show"?
2. Define "On-Change"?
3. What are Types of Reservation?
4. What is Reservation Modification?
5. What is the Reservation Cancellation?
6. Who prepares Luggage Out Pass?
7. What is Luggage Down Timing?
8. What 6 pm Release?
9. Give two differences between Density Chart and ALC.
10. What is Bounce Reservation?
11. What Turn Out?
12. What is GDS?
13. What are the types of CRS?
14. What is Intersell Agency?
15. What is Instant Reservation?
16. Name four GDS networks.
17. Name four CRS network.
18. What is Self-Reservation?
19. What is Overbooking?
20. What is other name for ALC?

6 Marks Questions

1. What are different reservation Maps?
2. What/Draw is Density Chart?
3. What is Booking Diary?
4. What/Draw is Advance Letting Chart?
5. Name the various Reservation Systems. And explain each in two lines.
6. What is the method of Reservation Modification?
7. How the special requests of reservations are handled?
8. What is the method of Reservation Cancellation?
9. Write a method of receiving reservation.
10. Give the job description of the Reservation Assistant.
11. What are the various Forms and Record are used in reservation section.

14Marks Questions.

1. What are the Sources of reservation? Draw the chart to show Modes of reservation.
2. What are the two important type reservations?
3. Write a note on Guaranteed and non-Guaranteed types of reservations.
4. What are Reservation Records used in F O Reservation Section of Hotel?
5. What are the Methods of receiving reservation for various types of guests?
6. How the Confirmations & Modifications of Reservations does is handled in Hotels?
7. What is the procedure of Cancellation of Reservations?
8. What are Reservation Charts used in hotels? Draw density & ALC Chart and explain.
9. Which are Records and Forms used in hotels for reservation?
10. Give Job description and specification- Reservation Assistant of Hotel.

1.5 HOUSE-KEEPING I

Max Marks: 70 **40 Hrs**

Module 1: INTRODUCTION **05 Hrs**

1.1 Meaning and Definition
1.2 Importance of Housekeeping
1.3 Responsibility of Housekeeping
1.4 Application of Housekeeping in other Areas
1.5 A career in Housekeeping

MODULE 2: HOUSE KEEPING DEPARTMENT **07 Hrs**

2.1 Organization frame work of the department (Large, Medium, Small)
2.2 Role of key personnel in housekeeping
2.3 Job description and job specification of staff in the department
2.4 Qualities of the housekeeping staff
2.5 Skill of a good housekeeper (Managerial, technical, conceptual)
2.6 Inter departmental coordination with more emphasis on front office and maintenance
2.7 Department and the relevant Sub sections

MODULE 3: HOTEL GUEST ROOM **10 Hrs**

3.1 Types of guest room
3.2 Layout out of guest rooms (types)
3.3 Layout of floor pantry
3.4 Furniture, fixture, guest supplies, amenities in a guest room (to be dealt in brief only)
3.5 Accessories

MODULES 4: HOUSE KEEPING CONTROL DESK **07 Hrs**

4.1 Importance, role, co-ordination, checklist
4.2 Form, formates&registers used in the desk report
4.3 Role of computer, snapshot of software
4.4 Lost & found
4.5 Key control
4.6 Gate pass
4.7 Indenting from stores

MODULES 5: LINEN, UNIFORM, TAILOR ROOM **06 Hrs**

5.1 Layout
5.2 Types of linen, sizes, linen exchange procedures
5.3 Storage facilities and conditions

5.4 Par stock (Introduction & definition)
5.5 Discard procedure, re-use of discard
5.6 Functions of uniform room
5.7 Functions of tailor room

MODULES 6: ECO-FRENDLY CONCEPT IN HOUSEKEEPING 05 Hrs

6.1 Ecotels
6.2 Ecotels Certification
6.3 Energy and Water Conservation
6.4 Eco friendly products
6.5 waste disposal in housekeeping

GLOSSARY

CLASS PLAN

1.5 HOUSE KEEPING

Subject: Housekeeping — Subject Code: 1.6

Total No. of Hours: 40 — IA Marks: 30

Theory Marks: 70

Sl. No.	Course	Sem	Subject	Module/Chapter	Topic	Hrs allotted by University
						Th.
1	B.H.M	I SEM	HOUSE KEEPING	1	MEANING AND DEFINITION	1
2	B.H.M	I SEM	HOUSE KEEPING	1	IMPORTANCE OF HOUSEKEEPING	1
3	B.H.M	I SEM	HOUSE KEEPING	1	RESPONSIBILITIES OF HOUSEKEEPING	1
4	B.H.M	I SEM	HOUSE KEEPING	1	APPLICATIONS OF HOUSEKKEPING IN OTHER AREAS	1
5	B.H.M	I SEM	HOUSE KEEPING	1	CAREER IN HOUSEKEEPING	1
6	B.H.M	I SEM	HOUSE KEEPING	2	ORGANIZATION FRAME OF HOUSEKEEPING	1
7	B.H.M	I SEM	HOUSE KEEPING	2	ROLE OF KEY PERSONNEL	1
8	B.H.M	I SEM	HOUSE KEEPING	2	JOB DESCRIPTION & SPECIFICATIONS	1
9	B.H.M	I SEM	HOUSE KEEPING	2	QUALITIES OF HOUSEKEEPING	1
10	B.H.M	I SEM	HOUSE KEEPING	2	SKILLS OF GOOD HOUSEKEEPER	1
11	B.H.M	I SEM	HOUSE KEEPING	2	INTERDEPARTMENTAL COORDINATION	1
12	B.H.M	I SEM	HOUSE KEEPING	2	SUBSECTIONS AND RELEVANT SUB SECTIONS	1
13	B.H.M	I SEM	HOUSE KEEPING	3	TYPES OF ROOMS	2
14	B.H.M	I SEM	HOUSE KEEPING	3	LAY OUT OF ROOM	2
15	B.H.M	I SEM	HOUSE KEEPING	3	LAYOUT OF FLOOR PANTRY	2
16	B.H.M	I SEM	HOUSE KEEPING	3	FURNITURE AND FIXTURES	2
17	B.H.M	I SEM	HOUSE KEEPING	3	ACCESSORIES	2

18	B.H.M	I SEM	HOUSE KEEPING	4	IMPORTANCE OF DESK	1
19	B.H.M	I SEM	HOUSE KEEPING	4	FORMS AND FORMATS	1
20	B.H.M	I SEM	HOUSE KEEPING	4	ROLE OF COMPUTERS	1
21	B.H.M	I SEM	HOUSE KEEPING	4	LOST AND FOUND	1
22	B.H.M	I SEM	HOUSE KEEPING	4	KEY CONTROLS	1
23	B.H.M	I SEM	HOUSE KEEPING	4	GATE PASS	1
24	B.H.M	I SEM	HOUSE KEEPING	4	INTENDING FROM STORES	1
25	B.H.M	I SEM	HOUSE KEEPING	5	LAY OUT OF UNIFORM ROOM	0.5
26	B.H.M	I SEM	HOUSE KEEPING	5	TYPES OF LINEN,SIZE	0.5
27	B.H.M	I SEM	HOUSE KEEPING	5	STORAGE AND MAINTENANCE	1
28	B.H.M	I SEM	HOUSE KEEPING	5	PAR STOCK	1
29	B.H.M	I SEM	HOUSE KEEPING	5	DISCARD PROCEDURE	1
30	B.H.M	I SEM	HOUSE KEEPING	5	FUNCTIONS OF UNIFORM ROOM	1
31	B.H.M	I SEM	HOUSE KEEPING	5	FUNCTIONS OF TAILORS	1
32	B.H.M	I SEM	HOUSE KEEPING	6	ECOTELS	1
33	B.H.M	I SEM	HOUSE KEEPING	6	ECOTELS CERIFICATIONS	1
34	B.H.M	I SEM	HOUSE KEEPING	6	ENERGY AND WATER CONSERVATIONS	1
35	B.H.M	I SEM	HOUSE KEEPING	6	ECO FRIENDLY PRODUCTS	1
36	B.H.M	I SEM	HOUSE KEEPING	6	WASTE DISPOSAL	1

HOUSE KEEPING

MODULE - 1

2. Marks Questions

1. Define Housekeeping
2. What is back of the house
3. Write two responsibility of housekeeping
4. Name three lodging industry other than a hotel
5. How does housekeeping contributes to earning profits in a hotel

6 Marks Questions

6. What is the importance of housekeeping departments?
7. Explain the definition and meaning of housekeeping
8. Write a note of application of housekeeping in other areas
9. Write a short note in career in housekeeping

14 Marks Questions

10. Write the responsibility of housekeeping

MODULE-2

2 Marks Questions

1. What is job- description
2. Explain job specification
3. Explain eye for detail
4. Who is valet
5. What is house man
6. What do the following term means
   a) GRA
   b) upholstery
7. what are the departments the housekeeping coordinate with
8. what are the housekeeping sub relevant sub sections
9. what is eye for detail

6 Marks Questions

10. What is the job description of housekeeping floor and public area supervisor
11. Draw the layout of the housekeeping department and explain the various sub section in brief
12. Give the job-description of assistant Exe.HK
13. What is the qualities needed for housekeeping staff
14. Describe the skills of good housekeeper
15. Give only the organizational chart of the housekeeping department of large hotel
16. Explain the housekeeping departments co-ordination with
    a) Front office
    b) Maintenance
    c) Laundry
17. Explain the duties of executive Housekeeper

14 Marks Questions

18. List the task that should be performed by desk supervisor.
19. As a housekeeping room boy, what are the various matters would you report to your superiors and why?
20. Draw the layout of floor pantry and explain it
21. Discuss the importance of inter-departmental relations
22. Explain the job description of an EHK, ASST,EHK]

MODULE-3

2 Marks Questions

1. Double Double means
2. What is a studio room
3. What is cabana
4. What is a UR room
5. Name any four guest supplies
6. What is an occupancy report
7. What is duplex suite
8. What do you understand by dirty dozen
9. Explain what is DND
10. What is a Hollywood-twin bed
11. What does the code NC denote
12. What is twin bedded room
13. What is an effiency room
14. What the term sleep out
15. Explain discrepancy report
16. What is adjoining room?
17. Define guest Essentials

6 Marks Questions

1. Draw the layout of a guest room(double room)
2. Write short note on the guest supplies placed in the room
3. Give in the brief the types of guest rooms in a hotel

14 Marks Questions.

1. Draw the layout of floor pantry and explain
2. Explain the types of furniture, guest supplies,and amenities in a guest room
3. Explain the accessories of the guest room.

MODULE-4

2 Marks Questions

1. What is grand master key?
2. What is master key
3. Explain the following

a) WC b) DND c) OOO

4. How a telephone should be cleaned.
5. What is floor master key
6. Returnable gate pass means
7. What is BIDET
8. What is grave yard shift
9. Explain GATE PASS

6 Marks Questions

10. What do you understand by key control
11. Explain in brief the importance of housekeeping control desk
12. Explain in brief the various functions of control desk
13. How would you handle guest hold up property
14. What is inventory controls? Explain the concept
15. Explain lost and found procedure
16. Why desk is called as a nerve center of housekeeping department
17. Which are the different files and registers maintained in housekeeping control desk
18. Draw the format of guest message register

14 Marks Questions

19. Explain

a) Inventory control
b) Lost and found procedure
c) Key handling

20. Explain the importance of housekeeping room report

MODULE-5

2 Marks Questions

1. Explain linen-chute
2. What is a mattress protector
3. Size of face towel
4. What is linen
5. Give any 2 function of linen room
6. Give any 2 advantage of a in-house laundry
7. What is linen bin
8. What is sorting of linen
9. What is bath mat

10. What is shower curtain
11. What is calendar machine
12. What is shoe- mitts
13. What is par stock
14. What are weft and wrap yarn
15. What is the work of a seamstress
16. What is Dutch wife
17. Give the size of a double bed sheets

6 Marks Questions

18. Define parstock. Explain the factors that effect par stock
19. How is linen and uniform exchanged? Explain
20. Write the short note for storage of linen
21. Write the function of uniform and tailor room
22. Explain the discard procedure of linen

14 Marks Questions

23. Explain the following

a) Par stock
b) Layout of linen room
c) Equipments found in linen room

24. Explain the layout of linen room and formats used in linen room
25. Explain the storage condition for linen and uniform room
26. Draw a neat diagram of chambermaid's trolley and indicate its contents
27. Explain the importance of linen control. How the room linen exchanged? explain with format
28. What are the various activities of a linen room

MODULE-6

2 Marks Questions.

1. What is TFA?
2. List 4 eco friendly amenities that can be placed in a hotel guest room
3. Mention the three R's of environments conservation
4. What is ecotels
5. What is biodegradables
6. What is grey water
7. What do you mean by green building?
8. Expand HPMVs, HPSV
9. What is fumigations

6 Marks Questions.

10. Explain Ecotels certification. Or Enlist various eco-friendly practiced followed in hotel housekeeping
11. How can you choosing an eco-friendly sites
12. What is energy conservation and energy monitoring?

14 Marks Questions.

13. What is water conservations? And explain general tips for water conservations
14. Mention the waste management in details
15. Explain environmental –friendly housekeeping.

Faculty Signature:

1.6 HOSPITALITY COMMUNICATION - I

MODULE 1: INTRODUCTION AND BASICS OF HOSPITALITY COMMUNICATION

1.1. Importance of Communication in Hospitality industry and its effects on performance -Customer Satisfaction
1.2. Communication Channels in the Hierarchy of an organization – Formal/ informal
1.3. Process of Communication and various factors/ components of communication
1.4. Significance of feedback
1.5. Forms of communication-Formal/Informal, Verbal/Non-verbal Communication

MODULE 2: COMMUNICATION CHANNELS, MODULES AND LANGUAGE STYLES

2.1. Verbal Communication – Oral and written –Advantages and Disadvantages
2.2. Non-Verbal Communication-Ambience/Signs/ Symbols/Voice/Body Language
2.3. Grooming/Power Dressing/Proxemics
2.4. Oral Communication- Barriers of Oral Communication Skills: Factors involved
2.5. Non Violent Communication
2.6. Cross Cultural Communication and overcoming these barriers

MODULE 3: PARALANGUAGE SKILLS – CLARITY IN ORAL SPEECH AND ETIQUETTE

3.1. Listening Skills and listening Comprehension Passages of Telephone Conversations and Speeches used as material
3.2. Introductions – Self and others- instructions-Asking and giving Directions
3.3. Telephone Speaking – Etiquette and other factors
3.4. Extempore and Prepared Speeches
3.5. Building positive attitude and Emotional Management

Module 4: BASICS OF WRITTEN COMMUNICATION

4.1. Written Communication- factors involved
4.2. Writing Telephone messages, Drafting Telegrams,
4.3. Email and Formal Net Communication Etiquette
4.4. Letter Writing – Leave Letters and Requests for Permission/Issue of Documents
4.5. Creative Writing – Creating Wall Magazines, Making Collages

MODULE 5: LANGUAGE ACCURACY – ENGLISH GRAMMAR

5.1. Accuracy and Usage, Common Errors and their correction in English usage with an emphasis on

Concord, Sequence of Tenses, Articles and Use of Prepositions

5.2. Introductions- Self and Others/Formal and informal
5.3. Making Queries, instructions, directions
5.4. Direct and Indirect Speech
5.5. Active and Passive Voice

MODULE 6: STUDY SKILLS

6.1. Story One
6.2. Story Two

BOOKS RECOMMENDED

1. **Essential of English Grammar- Raymond Murphy**
2. **Comprehend and Compose – Dr. GeetaNagaraj**
3. **Be my guest – Francis O'hara**
4. **Pronunciation Dictionary – Daniel Jones**
5. **Language in Use – Intermediate Series – Cambridge Publication**
6. **Mumbai's Dubbawala – ShobhaBondre**

CLASS PLAN

SL.NO.	MODULE	TOPICS / CHAPTERS	HRS ALLOTTED
1	1	Introduction and Basic of Hospitality Communication: Importance of Communication in Hospitality Industry	1
2		Effect of communication on Performance-Custormer Satisfaction	1
3		Communication Channels in the Hierarchy of an organization- Formal/ informal	1
4		Process of Communication and various factors/ Components of Communication: Explanation discussion of main points and questions	1
5		Significance of feed back & Forms of Communication- Formal/ Informal, Verbal/ Non-verbal Communication	1
6	2	Verbal Communication-Oral and Written - Advantages and Disadvantages	1
7		Non-Verbal Communication-Ambience/Signs/ Symbols/ Voice/ Body Language	1
8		Grooming/ Power Dressing/Proxemics & Oral Communication- Barriers of Oral Communication Skills: Factors Involved	1
9		Non Violent Communication & Cross Cultural Communication and overcoming these barriers	1
10	3	Listening Skills and Listening Comprehension Passage of Telephone Conversations and Speeches used as material	1
11		Passage of Telephone Conversations and Speeches used as material	1
12		Introductions- Self and others-Instructions- Asking for and Giving Directions	1
13		Telephone Speaking- Etiquette and other factors	1
14		Extempore and Prepared Speeches	1
15		Building positive attitude and Emotional Management	1
16	4	Written Communication- factors involved	1
17		Writing Telephone messages, Drafting Telegrams	1
18		Email and formal Net Communication Etiquette	1
19		Letter Writing -Leave letters and Requests for for Permission/ Issue of Documents	1
20		Creative Writing- Creating Wall Magazines, Making Collages: Explanation and Practical Activity	1
21		Creative Writing- Creating Wall Magazines, Making Collages: Practical Activity	1
22	5	Accuracy and Usage, Communication Errors and Their correction in English usage with an emphasis on Concord, Sequence of Tenses	1

23		Accuracy and Usage, Communication Errors : Articles and Use of Prepositions	1
24		Introductions Self and others/ Formal and informal	1
25		Making Queries, Instructions, Directions	1
26		Direct and Indirect Speech	1
27		Active and Passive Voice	1
28	6	Story One: Explanation	1
29		Story One: Summary and Discussion of Questions	1
30		Story Two: Explanation	1
31		Story Two: Summary and Discussion of Questions	1

1.6 HOSPITALITY COMMUNICATION- I

MODULE 1

2 Marks Questions

1. Give two examples of 'Lateral' Communication.
2. Name two examples of 'Internal' Communication.
3. What is Communication? Give any one definition.
4. What are the main areas in hospitality communication that requires attention?
5. Which element makes the communication process complete and successful?
6. Which element is essential in initiating (beginning) communication process?
7. How does any information flow in an organization?
8. Mention any two advantages of informal communication.

6 Marks Questions (Short Notes)

1. Grapevine communication.
2. The process of communication.
3. Explain importance of feedback in the Communication process.
4. What are the responsibilities of a sender?
5. Write a note on the Communication Environment
6. Compare and contrast – Formal and Informal Communication.

14 Marks Questions

1. Why should a hospitality professional develop his communication skills?
2. Every person working in a hotel should display good body language. Explain.
3. Describe Communication Process at length including all the elements.
4. Write a detailed note on the flow of communication in the organisational hierarchy. Both formal and informal.
5. What are the objectives of upward communication and horizontal communication? Write a detailed note.

MODULE 2 (LANGUAGE SKILLS)

2 Marks Questions

1. What are the four basic skills of a language?
2. Define Nonviolent Communication
3. What does Ambience mean in regard of Communication?
4. Define Verbal Communication

6 Marks Questions (Short Note)

1. Write a short note on Visual Symbols from Non-verbal Communication.
2. Proxemics
3. Grooming and Power Dressing
4. Non Violent Communication
5. Role of body Language in Communication

14 Marks Questions

1. Read the following passages and answer the questions that follow in your own words.

Marcia says that all of her friends have a cell phone, but Marcia's mom doesn't want to buy her one. Marcia's mom doesn't want Marcia to play video games either. What is more, the Interest scares her. Marcia's mom says, "If Marcia has a cell phone, how do we know whom she is talking to? Video games are bad for you. The Internet is dangerous and uncontrolled. It's like having a gun in the house. We should just ban her from using the computer, and I'm not buying her a cell phone until she is eighteen. This is the only way we can be sure that Marcia is safe."

Marcia's dad disagrees with Marcia's mom. Although he agrees that there are some dangers to it, he likes the internet, and finds it to be very useful. "The trouble is", he says, "We just can't stop Marcia from using the internet, as this would put her at a disadvantage. What is more, I like video games. I think that, when played in moderation, they are fun. Obviously, it is not good to play them without restraint or self-control. Finally, I think Marcia needs a cell phone. We can't take these things away."

1. Why does Marcia's mom say that the internet is like having a gun in the house?
2. Why does Marcia's father think that stopping Marcia from using the internet would 'put her to a disadvantage'?
3. What does Marcia's mother want to do to avoid her using the network?
4. What is the main reason Marcia wants to have a cell phone?
5. Use these in sentences of your own:

The only way, in moderation

2. We face several language barriers in communication. How can we overcome them?

MODULE 3

2 Marks Questions

1. Mention two positives of the radio.
2. What are the merits of the television as mass media?
3. Explain 'couch potatoes'.

6 Marks Questions (Short Notes)

1. Telephone etiquette.
2. Extempore speech
3. Building positive attitude and emotional management.

MODULE 4

2 Marks Questions

1. List out two disadvantages of written communication.
2. Define Written Communication
3. What is creative writing?

6 Marks Questions

1. Draft out a telegram for the following situation.
   You are Ravi. Your Boss Mr. Joseph is leaving for Delhi on the 25th. You want your colleague Sham to arrange Mr. Joseph's stay at the Taj West End for 2 days and pick him up at 7 pm from the airport.

6 Marks Questions (Short Notes)

1. Written Communication
2. Email and formal Net Communication etiquette.
3. Creative Writing.
4. Print Media.

14 Marks Questions (Leave Application)

1. Write out an application to the
   - employer - Asking for five days leave for the house warming ceremony of your new house
   - Principal – Requesting for few days leave for attending a language workshop.

2. Describe the role of internet in our lives today.

3. Describe Written Communication and factors involved in it.

MODULE 5

Grammar Section

1. A. Find the errors in the following sentences and rewrite them correctly.
    1. Maya returned back from Mysore yesterday.
    2. The teacher advised me to study hard.
    3. Everyone are present today.
    4. 'Three Idiots' are an excellent film.

    B. User the right articles (a/an/the) and complete the given sentences:
    Last night I saw _____ exciting programme on _____television. It was about _____man who started _____Drama Company. _____ Man organizes street plays with _____youth of the locality.

    C. Choose the right Prepositions/Preposition Phrase and re-write.
    1. Look up _____ (at/to) the clouds.
    2. She lodged a complaint (to/at) the police station.
    3. The fielder was running (after/away from) the ball.

2. A. Write the most polite enquiries you would make in these situations.
    1. You are at a restaurant. You want the waiter to direct you to the washroom.
    2. You are a receptionist. You need the customer to wait for a few minutes for his turn to receive his post.

    B. Write the set of instructions you would make to get these tasks done – anyone only.

    1. Make a simple sandwich of bread, butter and jam.
    2. Write a leave letter.

MODULE 6

2 Marks Questions

1. Why did RaghunathMedge thank Prince Charles?
2. What qualities had made Dhondiba popular?
3. When he failed in English, what did Raghunath do to pass?

6 Marks Questions (Short Notes)

1. Dhondiba's helpful nature
2. Raghunath's internal conflict after failure in matriculation exam.
3. Merging of two cultures of the East and the West.

14 Marks Questions

1. RaghunathMedge's visits to London was truly remarkable. Elaborate.

2. Mention the positive features of hospitality shown by the royal family of Prince Charles and hotel Taj in London towards their guests, dabbawalas.
3. Portray the character sketch of RaghunathMedge's father, DhondibaMedge.

Faculty Signature:

I-SEM BHM

COURSE MATRIX

INDIAN CONSTITUTION & HUMAN RIGHTS

Max Marks :70 **Internal Marks: 30**

Module 1: Indian Constitutional Philosophy

1.1 Feature of Indian Constitution & Preamble.

1.2Fundamental Rights and Fundamental Duties.

1.3 Directives Principal of State Policy.

Module 2 :The Union and State Executive, Legislative & Judiciary

2.1 Union Parliament & State Legislature: Power & Function.

2.2 President, PM & Council of Ministers.

2.3 State Governor, CM & Council of Ministers.

Module 3 :The S C & H C: Powers & Functions

3.1 Concept & Development of Human Rights

3.2 Meaning Scope & Development of Human Rights

3.3 United Nations & Human Rights- UNCHR

3.4 UDHR 1948, ICCPR 1996 & ICESCR 1966.

Module 4 :The Judiciary

4.1 Protection of Human Rights Act, 1993 (NHRC & SHRC)

4.2 First, Second & Third Generation Human Rights

4.3 Judicial Activism & Human Rights

READINGS:-

1. Durga Das Basu- Introduction to the Constitution of India.
2. SubhashKashyap- Indian Constitution.
3. J. A. Siwach- Dianamics of Indian Government & Politics.
4. D. C. Gupta- Indian Government & Politics.
5. H. M. Sreevai- Constitution Law of India.

Class Plan

Subject: INDIAN CONSTITUTION & HUMAN RIGHTS

Subject: INDIAN CONSTITUTION& HUMAN RIGHTS Subject Code: FC

Total No. of Hours: 40 IA Marks: 30

Theory Marks: 70

Sl.No.	Module	Topics / Chapters	Hrs. Allotted
37.	**1**	**Indian Constitutional Philosophy**	
38.		Feature of Indian Constitution & Preamble	3
39.		Fundamental Rights and Fundamental Duties	4
40.		Directives Principal of State Policy	3
41.	**2**	**The Union and State Executive, Legislative & Judiciary**	
42.		Union Parliament & State Legislature: Power & Function	4
43.		President, PM & Council of Ministers	2
44.		State Governor, CM & Council of Ministers	2
45.		The S C & H C: Powers & Functions	2
46.	**3**	**Concept & Development of Human Rights**	
47.		Meaning Scope & Development of Human Rights	3
48.		United Nations & Human Rights- UNCHR	3
49.		UDHR 1948, ICCPR 1996 & ICESCR 1966	4
50.		**The Judiciary**	
51.	**4**	Protection of Human Rights Act, 1993 (NHRC & SHRC)	3
52.		First, Second & Third Generation Human Rights	3
53.		Judicial Activism & Human Rights	4

INDIAN CONSTITUTION& HUMAN RIGHTS

1. **Which is the Fundamental Law of the Land?**
   A) ConstitutionB) Parliamentary Law C) Fundamental Rights D) Customary Law
2. **Who was the chairman of the Drafting Committee?**
   A) Dr. Rajendra Prasad B) Jawaharlal Nehru
   C) **Dr. B. R. Ambedkar** D) M. K. Gandhi
3. **What is the minimum age required to contest Rajya Sabha election?**
   A) 20 Year B) 25 Year
   C) **30 Year** D) 40 Year
4. **What is the Preface of a Constitution called?** A) Constitution B) Parliamentary Law
   C) Ordinary Law D) **None**
5. **Who supervises the proceedings of Lock Sabha Session?**
   A) Chairman B) **The Speaker**
   C) Prime Minister D) Opposition Leader
6. **Fundamentals Rights are suspended during?**
   A) General Election B) **National Emergency**
   C) War D) All above
7. **Indian Constitution is …….?**
   A) Rigid B) Flexible
   C) **Rigid and Flexible** D) None
8. **India is a ……State?**
   A) **Secular** B) Communal
   C) Theocratic D) None
9. **India has ……..system Government.**
   A) **Parliamentary** B) Presidential
   C) Aristocracy D) None.
10. **Which is described as "Heart and Soul" of Indian Constitution?**
    A) **Preamble** B) Fundamental Rights
    C) Fundamental Duties D) Directive Principles
11. **The President of India is an integral part of** A) **The Parliament** B) Lock Sabha
    C) Rajya Sabha D) Council of Ministers
12. **The concept of Judicial Review has been borrowed from ……Constitution.**
    A) **America** B) Britain
    C) France D) Russia
13. **Who is the Home Minister at the Centre?**
    A) **Rajnath Singh** B) Sushma Singh
    C) Maneks Gandhi D) None
14. **Legislature is the ……..** A) Part of the State B) **First organ of the Government**
    C) Responsible for execution of Law D) Democratic system of Government
15. **The Speaker of Lock Sabha is elected by……..**
    A) Members of Parliament B) **Member of Lok Sabha**
    C) Legislative Council D) Minister

16. Who administered oath to the Prime Minister? A) Chief Justice of India B) Vice President C) Speaker of Lok Sabha D) **The President**

17. Federal Government means ……A) **Single Government** B) Dual Government C) Multi Government D) Coalition Government

18. At present the maximum strength of Lok Sabah is
A) 500 B) 550 C) **545** D) 525

19. Speaker of Lok Sabha exercises his right to vote in the house ……
A) When members demand B) At his discretion C) when his party demands D) **In case of tie**

20. The maximum gap between two session of Parliament
A) One Month B) Three Month C) **Six Month** D) One Year

21. Fundamental Rights are ….
A) **Justiciable** B) Non-Justiciable C) Legal Right D) None

22. The President can be removed from the office on the ground of ……..?
A) Violating the Constitution B) Incapacity C) Proved misbehaviour D) **All the above**

23. The President of the Constituent Assembly
A) Sardar Patel B) Dr. B. R. Ambedkar C) **Dr. Rajendra Prasad** D) M. K. Gandhi

24. When Indian Constitution did come into force?
A) 15th Aug, 1947 B) 26th Nov, 1949 C) **26th Jan, 1950** D) 2nd Oct, 1959

25. The Fundamental Duties are incorporated under which Article in Indian Constitution?
A) **51 A** B) 50 A C) 55 A D) 60 A

26. The size of the ministry is decided by
A) **Chief Minister** B) Governor C) Member of Legislative Assembly D) None

27. The Fundamental Rights are included in which Part of our Constitution?
A) Part I B) Part II C) **Part III** D) Part IV

28. The Chief Commander of Defense forces in India is
A) **The President** B) Chief Minister C) Prime Minister D) Governor

29. The right that allows a person to participate in the political affairs of a state.
A) Social Rights B) Human Rights C) Political Rights D) None

30. Which is Economic Right?
A) Right to Equality B) Right To Press C) Right To Work D) Right to Vote

31. ……is the ceremonial head of India.
A) Prime Minister B) **The President** C) Speaker D) Minister

32. What is impeachment?

A) **Removal**. B) Promotion
C) Deputation. D) None.

33. Who is Vice-president of India?
A) **Mohammad Hamid Ansari** B) Rajnath Singh
C) Shahanawaj Husain D) None

34. How many representatives State of Karnataka can sends to Rajya Sabha?
A) 12 B) 14 C) 20 D) 15

35. In which year word "Secular" was added into Indian Constitution?
A) 1950 B) 1970 C) 1960 D) **1976**

36. How many Human Rights are mentioned in Indian Constitution?
A) 12 B) **6** C) 8 D) 10

37. Which Human Rights are given in Article 19 to 22 of Indian Constitution .
A) Right to Equality B) Right against Exploitation
C) **Right to Freedom** D) None

38. Which particular Article of Indian Constitution declares Untouchability as a Criminal Offence?
A) Article 22 B) Article 25 C) Article 30 D) **Article 17**

39. How many days before a no-confidence motions needs to be initiated in Lok Sabha against Lok Sabha Speaker?
A) 20 Days B) 14 days C) 15 Days D) 25 Days

40. Lok Sabha of Indian Parliament resembles to which House of Parliament of England?
A) House of Kings. B) House Of Lords.
C) **House Of Commons** D) None.

41. How many Union Territories are there in India?
A) **7** B) 8 C) 9 D) 10

42. When Emergency was declared in Indian Politics?
A) 1930 B) **1975** C) 1980 D) 1479

43. Who is Governor of State of Karnataka?
A) Mr. Siddaramahai. B) **Mr. VajubhaiVala**
C) Mr. Ananth Kumar. D) None.

44. Lok Sabha is also known as……..?
A) House of Kings. B) House Of Lords.
C) House Of Commons D) None.

45. Which of the following British Prime Ministers sent Cripps Mission to India?
A) MacDonaldB) Baldwin
C) ChamberlainD) Churchill

46. Which Article of the Constitution allows the centre to form new states?
A) Article 3B) Article 4
C) Article 5D) Article 6

47. Lok Sabha Speaker can be removed by …….?
A) **Resolutions.** B) Impeachment.
C) No Confidence Motion D) None.

48. When did the Constitution Assembly had its first sitting?
A) Dec9, 1946**.** B) Dec9, 1950.
C) Dec9, 1947. D) None.

49. Who was the elected the First Speaker of Lok Sab?
A) Manohar Joshi. B) P. C. Alexander.
C) Sumitra Mahajan D) **Ganesh VasudeoMavlankar**

50. What is the ?
A) Article 3B) Article 4C) Article 5D) Article 6

Faculty Signature:



COURSE PLAN
MBA II SEMESTER
2019 – 2021

Department of Management Studies
T John College
Bangalore – 560083

MASTER OF BUSINESS ADMINISTRATION
UNDER

CHOICE BASED CREDIT SYSTEM (CBCS)

(2014 - 2015 ONWARDS)

COURSE CONTENT FOR SECOND

SEMESTER

Message from Principal's Desk

I would like to welcome all T. John College MBA students to the Even semester 2020. This semester has plenty of extra activities along with the regular University curriculum and your participation shall make those events complete. The Calendar of Events will be shared with you as a part of your course plan. As teachers of T. John Group of Institutions, your all-round development is our primary goal, for which club activities with new clubs have been planned for this semester. Attending these activities will lead to an overall development of you as an individual. My best wishes towards smooth completion of this semester.

The following rules & regulations will help you conduct yourself better meeting the expectations of the college: -

1. **75% attendance in all subjects is mandatory.**
2. **Long leaves are not allowed within the 90 working days of this semester.**
3. **75% attendance in all subjects including extra attendances for club activities, Industrial Visits & Guest Lectures is the basic requirement for University Examination form fill up.**
4. **All Internal Exams including Pre-final must be attended by all students. Any absenteeism could lead to punitive actions.**
5. **Hall tickets are issued at the end of the semester have an attendance requirement of 75% in each subject.**
6. **Internal marks & grades to be sent to the University will be based on student's attendance, internal exam performance, class activities & assignments submitted.**
7. **Students must complete University Practical examinations before sitting for the theory exams wherever applicable.**
8. **If a student is taking any permission for participation in any event for which she/he should be granted attendance, that information must reach all subject teachers the day before the class to mark the attendance.**
9. **No extra attendance towards medical conditions will be granted as the minimum attendance requirement is only 75% and not 100%.**
10. **A student must meet the mentor at least once in a week.**

Wishing you all a very good beginning.

Principal
T John College

T. JOHN GROUP OF INSTITUTIONS	**CALENDAR OF EVENTS**	Ref. No: TJGI/F/ADMIN/03
		Rev No: 00
		Rev Date :01/08/2014
		Page 1 of 2

COLLEGE: **T. JOHN COLLEGE**

POST GRADUATE PROGRAMME: MBA Year/Sem: March 2020 – July 2020

March 2020

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
9th March	Monday	• Departmental Meeting. • Commencement of MBA IV Sem Class. • Three days Orientation Program for MBA IV	Program Coordinator. Program Coordinator. Course Coordinator & Class Coordinators	
11th March	Wednesday	• Commencement of MBA II Sem Class.	Program	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
		• Two days Orientation Program for MBA II	Coordinator. Course Coordinator.	
14th March	Saturday	• Introduction of VAP Course & Registration;	VAP Coordinator.	
16th March	Monday	• Display of Progressive Attendance on Notice Board; • Departmental Meeting. • Last day for fee payment without late fee charges & collection of Admit Card (IV semester)	Program Coordinator/Course Coordinator. Program Coordinator.	
17th March	Tuesday	• Last day for fee payment without late fee charges &collection of Admit Card (II semester) • Ist Assignment for MBA II-(TM & MRM) • Presentation Week for MBA II-(EE & HCM) • Ist Assignment for MBA IV-IBD • Presentation Week for MBA IV-IM/SBM/SHRM/BMHC	Subject Faculty & Class Coordinators	
21st March	Saturday	• Working in lieu of 11th April 2020: Ethnic Day		

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
23rd March	Monday	• Departmental Meeting	Program Coordinator	
23rd March-28th March	Monday-Saturday	• IQAC Department Audit.		
25th March	Wednesday	Holiday-Ugadi		
28th March	Saturday	• VAP Program • Guide Meeting	VAP Coordinators. Respective Guides	
30th March	Monday	• Research Cell Meeting. • Success Story of an Entrepreneur –An IIC Initiation. • Submission of Assignment I(TM & MRM)-MBA II • Submission of Assignment I –IBD-MBA IV	Research Coordinator. IIC Cell. Subject faculty	
31st March	Tuesday	• Ist Assignment for MBA II-EE & HCM • Presentation Week-MRM & TM • Ist Assignment for MBA IV-IM/SBM/SHRM/SBHC • Presentation Week for MBA IV-IFM/IMM/IHRM/SMHC	Subject Faculty	
31st March	Tuesday	• Last day for fee payment with late fee charges (II & IV semester).		

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
		• Report submission on VAP. • Report Submission on Assignment & Presentation Planned	VAP Coordinators. Class Teachers.	

April 2020

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
2nd April	Thursday	• Generation of Consolidated Attendance Report in PeopleSoft by HoD	Program Coordinator	
3rd April	Friday	• Display of Monthly Attendance on Notice Board	Course Coordinator	
4th April	Saturday	• Graduation Day		
6th April	Monday	Holiday-Mahaveer Jayanti		
7th April	Tuesday	• **Brand War- Interdepartmental Marketing Activity** • **Synopsis Presentation.** • Submission of undertaking from students having less than 75% Attendance (Subject Wise) • Ist Assignment Submission for EE & HCM • Ist Assignment Submission for MBA IV-IM/SBM/SHRM/SBHC • Ist Assignment for MBA II-FM & QT & IM • Ist Assignment for MBA IV-IFM/IMS/IHRM/SMHC • **Presentation Week for**	**Marketing Class Coordinator & MBA II Class Coordinator** **Dissertation Coordinator.** **Subject Faculty & Class Coordinator** **Subject Faculty**	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
		MBA IV RMD/DM /TKM/MHC		
8th April	Wednesday	• **Synopsis Presentation**	**Dissertation Coordinator**	
9th April	Thursday	• **Synopsis Presentation**	**Dissertation Coordinator**	
10th April	Friday	Holiday –Good Friday		
11th April	Saturday	Holiday-Holy Saturday		
13th April	Monday	• Departmental Meeting • Final Synopsis Submission	Program Coordinator. Guides & Dissertation Coordinator	
14th April	Tuesday	Holiday- Ambedkar Jayanti		
15th April	Wednesday	• Display of Progressive Attendance on Notice Board; • **Submission of Ist Assignment- FM(MBA II)**	Program Coordinator & Course Coordinator. Subject Faculty	
16th April	Thursday	• **Submission of Ist Assignment- QT(MBA II).** • **Best Manager- HR Activity**	**Subject Faculty.** **HR Class Coordinator & MBA II Coordinator**	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
17th April	Friday	• **Financial debate- Interdepartmental Finance Competition.** • **Submission of Ist Assignment –IM(MBA II).** • Ist Assignment Submission for MBA IV-IFM/IMS/IHRM/SMHC	**Finance Class Coordinator & MBA II Coordinator.** **Subject Coordinator**	
18th April	Saturday	**III Saturday Holiday**		
20th April	Monday	• **Departmental Meeting IV**	**Program Coordinator**	
24th April	Friday	• **National Conference**	**Conference Convener**	
25th April	Saturday	• **VAP for II Sem** • **Guide Meeting**	**VAP Coordinator**	
27th April-30th April	Monday-Thursday	• Ist Internal Examination	Exam Coordinator	
27th April	Monday	• Research Cell Meeting	Research Coordinator	
30th April	Thursday	• Report submission on VAP • Report Submission on Assignment & Presentation	VAP Coordinators. Class Coordinators	

May 2020

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
1st May	Friday	Holiday-Labour Day		
2nd May	Saturday	Ist Satuday-Holiday		
3rd May	Monday	• Generation of Consolidated Attendance Report in PeopleSoft by HoD. • Presentation Week for FM. • IV Sem 5 weeks Dissertation Begins	Program Coordinator. Subject Faculty	
4th May	Monday	• Submission of 1st Internal Marks to Principal office. • Departmental Meeting	Exam Coordinator & Program Coordinator	
5th May	Tuesday	• Display of Monthly Attendance on Notice Board	Program Coordinator/Course Coordinator	
6th May	Monday	• Presentation Week for QT. • HR –Guest Lecture	Subject faculty HR Class Coordinator & MBA II Coordinator	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
9th Nay	Saturday	• VAP for II Sem • Submission of undertaking from students having less than 75% Attendance (Subject Wise)	VAP Coordinators. Subject Faculty & Class Coordinator	
11th May	Monday	• Departmental Meeting. • Business Idea Competition-IIC	Program Coordinator. IIC-Cell	
15th May	Friday	• Submission of 1st Progress Report by IV Sem. • CEO Talk-General GL	Respective Guides & Dissertation Coordinator. HR Class Coordinator & MBA II Coordinator	
16th May	Saturday	Holiday- 3rd Saturday		
18th May	Monday	• Display of Progressive Attendance on Notice Board. • Research Cell Meeting. • Presentation Week IM-MBA II. • Presentation Week-IBD-MBA IV	Program Coordinator/Course Coordinator. Research coordinator. Subject Faculty	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
18th May -23rd May	Monday-Saturday	• IQAC Dept audit		
23th May	Saturday	• VAP for II Sem • GL- Finance	VAP Coordintor Finance Class Coordinator & MBA II Coordinator	
20th May	Wednesday	• Adzap-A Marketing Activity	Marketing Class Coordinator & MBA II Coordinator	
22nd May	Friday	• IV		
25th May	Monday	• Departmental Meeting. • Assignment 2 for FM & MRM- MBA II. • Presentation Week 2 for EE & HCM- MBA II	**Program Coordinator.** **Subject faculty**	
30th May	Saturday	• Submission of II nd Progress Report IV Sem • VAP for II Sem	Guides & Dissertation Coordinator. VAP Coordinator	

June 2020

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
1st June	**Monday**	• **Departmental Meeting** • **Report submission on VAP.** • **Report Submission on Assignment & Presentation**	**Program Coordinator.** **VAP Coordinators.** **Class Coordinators.**	
2th June	Tuesday	• Generation of Consolidated Attendance Report in PeopleSoft by HoD	Program Coordinator	
5th June	Friday	• Display of Monthly Attendance on Notice Board	Course Coordinator	
6th June	Saturday	Ist Saturday Holiday		
8th June	Monday	• Departmental Meeting • MBA IV Sem Class Commences After Dissertation • Submission of assignment 2 for FM & MRM	Program Coordinator. Subject faculty	
9th June	Tuesday	• Submission of undertaking from students having less than 75% Attendance (Subject Wise).	Subject faculty & Class teachers.	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
		• Assignment 2 fot QT-MBA II. • Presentation Week 2 for TM & IM. • **Assignment 1 for MBA IV RMD/DM/TKM/MHC.** • Presentation Week-IBD-MBA IV	Subject Faculty	
13th June	Saturday	• VAP for II Sem	VAP Coordinators.	
15th June	Monday	• Submission of Dissertation by MBA IV Sem. • Research Cell Meeting • Display of Progressive Attendance on Notice Board. • **Submission of Assignment 1 for MBA IV RMD/DM /TKM/MHC**	Guides & Dissertation Coordinator. Research Coordinator. Course Coordinator. Subject faculty.	
16th June	Tuesday	• Orientation on Specialization to MBA II	MBA II	

DATE/MONTH	DAY	ACTIVITY	ACTIVITY INCHARGE	STATUS
			Coordinator	
17th June	Wednesday	• IV		
19th June-27th June	Friday-Saturday	• Commencement of Pre-Finals for MBA II and IV semester	Exam Coordinator	
20th June	Saturday	Holiday-3rd Saturday		
27th June	Saturday	VAP-Program-Final Assessment	VAP Coordinators	
30th June	Tuesday	• Submission of Pre-Final Marks to Principal Office . • Last working day for IV sem.	Exam Coordinator & Program Coordinator.	
3rd July	Friday	• Report Submission on VAP • Report Submission on Assignment & Presentation. Last working day for II sem	VAP Coordinators. Class Coordinators.	

Note:

- The last working day and major activities in calendar may vary as per university notification.
- The form fill up dates for the university examination will be as per the university notification.
- Internal examination 50% syllabus completion
- Pre-Final Examination with 90%-100% completion of syllabus.

Total No of Working Days:

IV Sem	
Mar	20
Apr	22
May	25
June	24
Total	**91**

II Sem	
Mar	18
Apr	22
May	25
June	24
July	03
Total	**92**

Total No of Teaching Days:

IV Sem	
Mar	18
Apr	15
May	00
June	17
Total	50

II Sem	
Mar	16
Apr	15
May	23
June	17
July	03
Total	74

CO-ORDINATOR **DIRECTOR** **PRINCIPAL**

COURSE PLAN

II SEMESTER MBA

COURSE MATRIX

PAPER	SUBJECT	PAGE NO
2.1	Technology for Management	18-29
2.2	Management Research Methods	30-39
2.3	Entrepreneurship and Ethics	40-51
2.4	Human Capital Management	52-60
2.5	Financial Management	61-70
2.6	Quantitative Techniques and Operations Research	71-101
2.7	Innovation Management	102-107
	PREVIOUS YEARS QUESTION PAPERS	109-198

2.1 TECHNOLOGY FOR MANAGEMENT

MODULE – 1 **4 HOURS**

Introduction and definition of computer, Brief history (Analog, Digital, Binary language), Major components of a computer system, Interfacing with a computer, Hardware and Software with examples, Introduction to languages, compiler, interpreter and assembler. Operating Systems: Definition, Functions, Types and Classification, Elements of GUI based operating system-Windows-Use of menus, tools and commands of windows operating system, Linux and free and open software; Computer Networks: Overview and Types (LAN, WAN and MAN), Network topologies, Internet; Data representation and computer security

MODULE - 2 **4 HOURS**

Data and Information, MIS, Decision Making and role of MIS, Planning for MIS; System Development Methodologies; Conceptual and detailed designs of MIS

MODULE – 3 **10 HOURS**

Information systems for strategic advantage, Strategic role for information system, Breaking business barriers, Business process reengineering, Improving business qualities.

Information system analysis and design, Information SDLC, hardware and software acquisition, system testing, documentation and its tools, conversion methods

Decision Support System: Overview, components and classification, Steps in constructing a DSS, Role in business, Group decision support systems, Expert systems

MODULE – 4 **10 HOURS**

System implementation Strategies and process; System Evaluation and Maintenance, Applications – cross –functional MIWS; ERP; CRM; SCM; Transaction Processing; Artificial Intelligence technologies in business: neural networks, fuzzy logic, virtual reality; Executive information systems

MODULE - 5 **12 HOURS**

E-commerce: Introduction, Comparison between Traditional commerce and E-commerce, Advantages & disadvantages of E-commerce, Buying & Selling on Internet, Issues in Implementing Electronic Commerce. Applications of Information Technology: Information Technology (IT) applied to various functional areas of management, such as Production / Operations, Marketing, Human Resource, Finance and Materials Management.

Introduction to ERP Systems: Review of DBMS and Transaction processing concepts, Business Processes and integration across functions, Salient features of ERP systems offered by leading vendors, prerequisites and process of implementation.

MODULE - 6 **16 HOURS**

Introduction to OS and Office Software: Use of MS-Office, Basics of MS-Word, MS-Excel and MS-PowerPoint; Application of these software for documentation and making reports, Preparation of questionnaires, Presentations, Tables and reports (Practical)

Database Management Systems: Overview of DBMS; Components of DBMS, Recent trends in database, RDBMS; MS Access: Overview of MS-Access. Creating tables, queries, forms and reports in MS-Access

Internet Basics, Basic ways of connecting to the internet, Internet Protocol, IP Address,Working with Google Services: Docs, Spreadsheet, presenter, sites etc; Introduction to Oracle or MySQL

RECOMMENDED READINGS

Essential Readings

1. Kenneth C. Laudon and Jane P. Laudon, “Information Systems”, Pearson Publication.2013. Dorling Kindersley (India) Pvt. Ltd.
2. O’Brien, Management, Info Systems, Tata McGrawhill, Latest
3. Giridhar Joshi, Management Information Systems, Oxford University Press, 2013

REFERENCES

1. Sudalaimuthu & Hariharan, Information Technology for Managers, Himalaya publications.

2. D.Monley & CS Parker, Understanding Computers Today & Tomorrow, Cengage/Thomson

3. ITL Education Solutions Ltd, Introduction to Computer Science, Pearson

4. D.P. Nagpal, Computer Fundamentals. S. Chand Publishers. 2013

5. Jaiswal & Mital, MIS, Oxford University Press, Latest edition.

6. Raju Chopra, Database Management Systems, S.Chand.

CLASS PLAN

Sl. No.	Module/ Chapter	Topic	Hours allotted
1	1	Introduction and definition of computer, Brief history Major components of a computer system, Interfacing with a computer, Hardware and Software with examples, Introduction to languages, compiler, interpreter and assembler	1
2		Operating Systems: Definition, Functions, Types and Classification, Elements of GUI based operating system-Windows-Use of menus, tools and commands of windows operating system, Linux and free and open software.	1
3		Computer Networks: Overview and Types Network topologies	1
4		Internet; Data representation and computer security	1
5	2	Data and Information, MIS	1
6		Decision Making and role of MIS	1
7		Planning for MIS; System Development Methodologies	1
8		Planning for MIS; System Development Methodologies	1
9	3	Information systems for strategic advantage, Strategic role for information system, Breaking business barriers, Business process reengineering, Improving business qualities.	2
10		Information system analysis and design, Information SDLC, hardware and software acquisition, system testing, documentation and its tools, conversion methods	3
11		Decision Support System: Overview, Components and Classification	2
12		Group Decision Support System	1
13		Steps in constructing DSS, Role in business	2
14	4	System Implementation Strategies and process	2
15		System Evaluation and Maintenance Applications-	2
16		Cross-functional MIWS;	2

17		ERP;CRM;SCM	2
18		Executive Informations Systems	1
19		Transaction Processing; Artificial Intelligence technologies in business, fuzzy logic, virtual reality	1
20	5	E-Commerce: Introduction, comparison between Tradtional commerce and e-commerce, advantages and disadvantages of e-com	1
21		Buying and Selling on Internet, Issues in implementing Electronic Commerce.	2
22		Applications of Information Technology: IT applied to various functional areas of management, such as production, operations, marketing, human resources, Finance and Materials Management	1
23		Introduction to ERP Systems: Review of DBMS and Transaction processing concepts	1
24		Review of DBMS and Transaction processing concepts, Business processes and integration across functions,	2
25		Business Processes and integration across functions	2
26		Salient features of ERP systems offered by leading vendors	2
27		ERP - prerequisites and process of implementation.	1
28	6	Introduction to O.S. and office software: Use of M.S. Office	1
29		Basics of M.S Word, Excel and Powerpoint	3
30		Application of these software for documentation and making reports,	2
31		Preparation of questionnaires, Presentations, Tables and reports (Practical)	2
32		Database Management Systems: Overview of M.S Access. Creating tables, queries, forms and reports in MS- Access	3
33		Internet Basics, Basic ways of connecting to internet	1
34		Internet Protocol, IP Address, Connectivity to Internet, Wi Fi Connectivity	1
35		Working with Google Services: Docs, Spreadsheet, Presenter, Sites, etc	3
			56

QUESTION BANK

MODULE 1

5 Marks Question:

1. Explain the classification of computers
2. Explain the types of computer
3. What do you mean by computer networks? Explain in detail
4. Describe in detail about translators
5. Give the difference between compiler and intrepreter
6. Explain the types of hardware
7. Explain the types of software
8. What do you mean by GUI based operating system

10 Marks Question:

1. Explain in detail about operating systems
2. Describe the network topologies
3. Explain the features of windows operating system
4. Explain in detail about computer security
5. Explain the characteristics and functions of an operating system

MODULE 2

5 Marks Question:

1. Describe data and information with examples
2. Define MIS and its characteristics
3. Explain the role of MIS in business planning
4. Explain the types of reports generated by MIS
5. Describe the conceptual design of MIS

10 Marks Question:

1. Explain the system development methodologies wrt MIS
2. Describe the steps in decision making process

Explain Herbert simon model of decision making

3. Describe in detail about the role of MIS in business

MODULE 3

5 Marks Question:

1. What do you mean by information system for strategic advantage. Explain
2. Explain the system development methodologies
3. What are the challenges faced in Implementing information system
4. Explain in detail about the process of SDLC
5. What do you mean by Waterfall model.Explain
6. Explain in detail about decision support system

10 Marks Question:

1. What are the components required in DSS and explain it.
2. Explain the concept of GDSS
3. Explain in detail about Expert systems and its model
4. Explain the concept of BPR
5. Explain in detail about the classification of DSS
6. Discuss the importance of System analysis and design phase in the overall development

MODULE 4

5 Marks Question:

1. Describe the system implementation process
2. What do you meant by system evaluation and maintanence
3. Explain the process of cross functional applications

4. Describe the concept of ERP
5. What is CRM. Explain it.

10 Marks Question:

1. How Artificial intelligence is used in business. explain
2. Define the terms. Neural networks and fuzzy logic
3. Explain the concept of virtual reality
4. Explain the process in TPS and EIS
5. Explain the strategies in the system implementation process
6. Explain in detail about the role of DSS in business

MODULE 5

5 Marks Question:

1. Explain the concept of E-commerce
2. Describe the difference between traditional commerce and E-Commerce
3. Mention the advantages and disadvantages of E-Commerce
4. Explain the process of buying and selling on internet
5. Describe the issues in implementing E-Commerce
6. Explain the application of IT in Production Department.

10 Marks Question:

1. Explain the applications of E-Commerce
2. Explain the process of applying IT in Financial management
3. Explain the process of applying IT in HR management
4. Explain the process of applying IT in Marketing management
5. What do you mean by DBMS. Explain the model of DBMS
6. Explain the process of implementing ERP in an organizations

MODULE 6

5 Marks Question:

1. Explain the salient features in Msword and Msexcel
2. Describe Mspowerpoint with all its features
3. Explain the process of documentation and making reports in ms word
4. What do you mean by IP address
5. What is internet protocol
6. Describe Google docs and its advantages
7. What do you mean by SQL query

10 Marks Question:

1. Explain the overview and components of DBMS and RDBMS
2. What do you mean by MS Access and explain creating tables and queries in MS Access
3. Explain the concept of internet.
4. Mention the features and advantages of Oracle and MYsql

Sample Case studies

1. You are the owner of a hardware store. The store has different kinds of items like paint, nuts, bolts,nails and such. You have two kinds of customers. Regular customers and floating customers who walk in as they pass. Since it is becoming difficult to handle the store sales as well as to maintain the stock, you have decided to introduce CBIS in your store. Predict the requirements of the store and match accordingly the different information systems you would introduce by mentioning their applications.

A Decision Support System example in Everyday life

2. A real life example is Amazon.com. Amazon.com has a huge warehouse of products available online. When consumers make a purchase, like a blu-ray player, the data from the individuals purchase is stored and managers can see how well particular brands are selling. Say a sony blu-ray player was purchased, managers could take the data and compile it and could also pair the player with a new HD television, in order to help the blu-ray player to sell

faster. On the other hand, since blu-ray players are so new, and rather expensive in comparision with traditional dvd players, managers could offer discounted blu-ray dvds with every purchase of a player. This was the case when blu-ray players and HD-players first came out. Managers had to determine which of these two brands would triumph, and which machine should be dropped from the companies website. Sales records and data from customer purchases were complied and managers took this information and determined what the best course of action would be. In the long run blu-ray players, in addition to blu-ray dvd's, outsold HD dvd's and HD players, becoming the standard for the ultimate movie experience. Eventually, due to slow sales, HD players and Dvd's were not longer sold through Amazon.com. The data compiled from consumers purchases allowed managers to make the decision on what format would sell better. However, a Decision Support System is not just a matter of determining what goals need to be met in order to reach maximum profitability.

Develop the model of DSS for the above example and explain .

3. Do the requirement analysis and develop a SDLC for a health care system
4. Do the requirement analysis and develop a SDLC for a Govt library system

3. Management Information Systems in Indian Railways – A Case Study

Management Information Systems (IS) is an inter-disciplinary area bridging the business perspective and the well-defined computer science field (popularly referred to as information technology, although there is a difference in the strict sense) that has been steadily evolving since it was coined in the 1960s. The management information systems discipline therefore is supported by the theoretical foundations of management science, information theories, technology, decision support systems, economics, sociology, consumer behaviour and information technology. Scholars perusing the discipline have the unique opportunity to explore the dimensions of various business models as well as related algorithmic processes and their complexities extended from the computer science discipline. Typically, information systems include business procedures or even processes, people, data, information flows, software, and hardware that are used to gather and analyze digital information. Can you comprehend the levels

of complications in such a situation? Specifically Information Systems are the intersection that people and organizations use to collect, filter, process, create, & distribute data (computing) through its business processes, and implemented by its human capital, to address such challenges.

Questions:

Explain the functioning of CRIS used in Indian railways

What are the challenges faced by CRIS.Explain it.

2.2 MANAGEMENT RESEARCH METHODS

MODULE ONE: INTRODUCTION TO MANAGEMENT RESEARCH

Definition, Nature and role of Management Research, Types of Research based on Purpose, Process, Outcome, Nature, Action and Logic, Research concepts, constructs, propositions and hypotheses, Features of a good Research Study, Research Process, and Ethical issues

MODULE TWO: RESEARCH PROBLEM, RESEARCH HYPOTHESIS AND RESEARCH DESIGN

Identification and Selection of the Problem, Definition and Statement of the Problem, Evaluation of the Problem, Criteria and sources for identifying the problem, process of defining the problem. Nature, Definition and Characteristics of Good Hypothesis, types of hypothesis. Formulation and testing of hypothesis The Design of Research, Meaning, Need, dimensions and process, types of research design

MODULE THREE: DATA COLLECTION AND MEASUREMENT CONCEPTS

Scales of Measurement, Classification of Scales - Single Item v/s Multi Item Scales, Comparative v/s Non-Comparative scales, Continuous Rating Scales; Criteria for Good Measurement Criteria for Questionnaire Designing; Types of Questionnaire; Questionnaire Design Procedure, Pilot test, validity and reliability of Questionnaire, Cronbachs alpha, interview schedule Primary Data Collection, Classification of Survey methods, Evaluation Criteria for Survey Methods; Observation Techniques, Classification of Observation Methods, Advantages and Limitations of Observation Techniques Secondary Data Collection, Classification of Secondary Data Sources, Evaluation of Secondary Data, Roadmap to use Secondary Data, Benefits and Drawbacks of Secondary data Qualitative methods, Methods, Focus Group Method, Personal Interview Method and Projective Techniques

MODULE FOUR: SAMPLING AND DATA PREPARATION

Sampling,Concept of Sample and Target Population, Sample frame, Sample unit and sample size, Characteristics of a Good Sample, Sampling Design Process; Probability and Non Probability Sampling Design, Sampling v/s Non-Sampling Error; Determination of Sample Size. Data Preparation, Field Validation, Data editing, Coding, Content Analysis, Classification and Tabulation of Data.

MODULE FIVE : DATA ANALYSIS

Basic data analysis: Descriptive Statistics, Univariate and Bivariate Statistical Analysis (concepts), Parametric & Non-Parametric Tests; Null & Alternative Hypothesis, Error in Testing of Hypothesis, Critical Region, Degrees of Freedom, One Tailed & Two Tailed Tests, Standard Error; Procedure for Testing of Hypothesis. Parametric test, Non parametric test and Factor Analysis: Conditions for applicability, practical applicability, Implementation and statistical Inference of the above test

MODULE SIX: RESEARCH REPORT WRITING

Types of Research Report, Report Structure, Report Writing: Report Formulation, Guidelines for effective Documentation and visual representation (Graphs) and Research Briefing –Oral Presentation.

RECOMMENDED READINGS

ESSENTIAL READINGS

1. Deepak Chawla, NeenaSondhi, “Research Methodology concepts and Cases”, Vikas Publishing House Pvt Ltd

2. William Zikmund, Barry Babin, Jon Carr, Mitch Griffin, “Business Research Methods”, Cengage Learning.

3. Naval Bajpai, “Business Research Methods”, Pearson Education

REFERENCES

1 Donald R Cooper, Pamela S Schindler, JK Sharma, “Business Research Methods”, McGraw Hill

2 R. Panneerselvam, “Research Methodology”, Prentice hall

3 SL Gupta, “Research Methodology”, International Book House Pvt Ltd

4 Alan Bryman, Emma Bell, “Business Research Methods”, Oxford University Press.

5 Naresh K Malhotra and Satyabhushan Dash, “Marketing Research”, Pearson Education

CLASS PLAN

Sl. No.	Module No.	Topic	Hours allotted
1	1	Definition, Nature and role of Management Research	2
2	1	Types of Research based on Purpose, Process, Outcome, Nature, Action and Logic, Research concepts.	2
3	1	Constructs, propositions and hypotheses, Features of a good Research Study, Research Process, and Ethical issues.	2
4	2	Identification and Selection of the Problem, Definition and Statement of the Problem, Evaluation of the Problem,	2
5	2	Criteria and sources for identifying the problem, process of defining the problem.	2
6	2	Nature, Definition and Characteristics of Good Hypothesis	2
7	2	Types of hypothesis. Formulation and testing of hypothesis The Design of Research	2
8	2	Meaning, Need, dimensions and process.	2
9	2	Types of research Design	2
10	3	Scales of Measurement, Classification of Scales - Single Item v/s Multi Item Scales, Comparative v/s Non-Comparative scales Continuous Rating Scales; Criteria for Good Measurement Continuous Rating Scales; Criteria for Good Measurement	2
12	3	Criteria for Questionnaire Designing; Types of Questionnaire; Questionnaire Design Procedure, Pilot test, validity and reliability of Questionnaire, Cronbachs alpha, interview schedule	2
13	3	Primary Data Collection, Classification of Survey methods, Evaluation Criteria for Survey Methods; Observation Techniques, Classification of Observation Methods,Advantages and Limitations of Observation Techniques	2

14	3	Secondary Data Collection, Classification of Secondary Data Sources, Evaluation of econdary Data, Roadmap to use Secondary Data, Benefits and Drawbacks of Secondary data	2
15	3	Qualitative methods, Methods, Focus Group Method, Personal Interview Method andProjective Techniques	2
16	4	Sampling,Concept of Sample and Target Population, Sample frame, Sample unit and sample size	2
17	4	Characteristics of a Good Sample, Sampling Design Process; Probability and Non Probability Sampling Design	2
18	4	Sampling v/s Non-Sampling Error; Determination of Sample Size.	2
19	4	Data Preparation, Field Validation, Data editing, Coding, Content Analysis	2
20	4	Classification and Tabulation of Data.	2
21	5	Basic data analysis: Descriptive Statistics	2
22	5	Univariate and Bivariate Statistical Analysis (concepts), Parametric & Non-Parametric Tests	2
23	5	Null & Alternative Hypothesis, Error in Testing of Hypothesis, Critical Region, Degrees of Freedom, One Tailed & Two Tailed Tests, Standard Error; Procedure for Testing of Hypothesis.	2
24	5	Parametric test, Non parametric test and Factor Analysis: Conditions for applicability	2
25	5	practical applicability, Implementation and statistical Inference of the above test	2
26	6	Types of Research Report, Report Structure, Report Writing	2
27	6	Report Formulation	2
28	6	Guidelines for effective Documentation and visual representation (Graphs) and Research Briefing –Oral Presentation.	2

	6	Oral Presentation	2
		TOTAL	**56**

QUESTION BANK
MODULE 1

Conceptual Type

1. How would you define business research? What are the major components of a good research study? Illustrate with example.
2. What is of more value to a corporate world- basic, fundamental or applied? Justify your reasoning.
3. Does exploratory research always leads to conclusive research. Give example to justify your views.
4. How to formulate business research proposal? Explain with required content.
5. Explain research process in detail.

Analytical Type

1. You are a business manager with the ITC group of hotels. You receive a customer satisfaction report on your international hotel from research agency. How you will evaluate quality of the work conducted by the research agency.
2. Faced by a large amount of absenteeism and low productivity, HR manager proposes that a job satisfaction study across the different level of hierarchy is required. What will be research problem and question for the study?

MODULE 2

Conceptual Type

1. What is research Design? Explain in detail.
2. What is difference between exploratory and formal study.
3. What is different between null hypothesis and alternate hypothesis?
4. What are the components of a good research?
5. Hypothesis are guiding force in any research study , justify the statement

Analytical Type

1. The Indian army wants to ascertain why young students do not select the armed forces as a career option.

a. How would you formulate research problem
b. What would be variable under study?
c. How would you generate descriptive and relational hypothesis for your study

2. The training need identification is required for new joiners in ABC Corporation. The HR manager needs to prepare final plan for content of training.
    a. Formulate your research problem
    b. Identify Sources for problem audit.
    c. Generate theoretical framework for the study.

3. Intelligence tests on two groups of boys and girls gave the following results:

Gender	Mean	Standard Deviation	Sample Size
Girls	75	15	150
Boys	70	20	250

Test is there any difference in the mean scores obtained by boys and girls. If level of significance in 0.05

MODULE 3

Conceptual Type

1. Discuss with the help of examples the four key levels of measurement. Which mathematical formulas are permitted for which level of measurement?
2. Discuss the major type of validity.
3. Explain single item vs. multi item scale.
4. Explain reliability and consistency.
5. What is measurement error? Explain.
6. What is scaling? Explain various scaling techniques.

Analytical Question

1. Suppose Jet airways wants to ascertain the image it has in the minds of its patrons. Construct a seven item likert scales.
2. Indicate type of measurement you can use for following characteristics.
    a. Colour of dishwasher
    b. Age of tv
    c. Occupation
    d. Brand loyalty
    e. Intention to purchase

MODULE 4

Conceptual Type

1. What is sampling.
2. Explain sample and sample design.
3. Probability sampling and non probability sampling
4. Concept of standard error in sampling analysis
5. Quota sampling vs. Stratified sampling
6. What is systematic sample
7. How to form and edit Questionnaire
8. Processing of data and tabulation and refining of data.

Analytical Type

1. A simple random sample has been drawn from a population of 2000 items if we desire to estimate the percentage of defective items with 1.55 percent true value and 95 percent probability , how large a sample need to be drawn.
2. Explain the effect of increasing degree of confidence from 9 to 5 percent on the sample size when the standard error remain unchanged.

MODULE 5

Conceptual Type

1. What is elaboration? What could be found as a result of elaboration?
2. What are non parametric test
3. What is Chi Square test
4. What is correlation coefficient? how to calculate it?

Analytical Type

1. You are presented with the following table of frequency counts to show the nature of relationship between age and watching movie in cinema hall. What conclusion can be drawn?

Frequency of watching movie	Age	
	Under 35	35 and above
4 or more	200	80
Less than 4	130	190
total	330	270

MODULE 6

Conceptual Type

1. What is ideal structure of research report? Explain.
2. What is technical and business report?
3. Explain various visual representation of result possible in research report.
4. Line chart and pie chart
5. Brief report and long report

Analytical Type

1. Find a technical report from the library or internet and discuss various segment of report and review them.

Assignment One:

1. Article review of given article on ethics in Business research

   https://intranet.mbs.ac.uk/Portals/0/docs/Ethics/Bryman%20Bell%20(2007)%20Ethics%20in%20business%20research.pdf

   Check the article read it , write an article review and answer any two questions at the end of article article review format should be:

- Name of Author and reference
- Introduction of the chapter
- Learning from the chapter
- Comment on the chapter
- Answers of the Questions

Assignment two:

Using secondary data for literature review:

Students need to go to library and explore given topic and mention reference at the end of report.

At least three reference from book and 2 from internet sites should be added.

Presentation module 3 Topic:

1. Measurement
2. Multi item and single item scale
3. Parametric and non parametric scales
4. Questionnaire designing
5. Probable Mistakes in Questionnaire formation

6. Right data collection tool

Presentation module 6Topic:

1. Research report format
2. Qualities of good research report
3. Content on research report

Activities:

1. **Distinguishing Between Primary and Secondary Sources**

   Student will be given with list of scenario and then asked to identify which data collection required primary or secondary and then right answer will be discussed by faculty with reasoning on answer.

2. **Identification and selection of research problem**

   It is a group activity where students are asked to work on given organization. They need to check recent news release and try to identify research problem based on that news and then further designing the problem in specific terms.

2.3 ENTREPRENEURSHIP AND ETHICS

MODULE – 1 ENTREPRENEURSHIP IN THE NEW MILLENNIUM

Concepts of entrepreneur and entrepreneurship, Importance and Characteristics of entrepreneurs, Types of entrepreneurs, Benefits and potential risks of entrepreneurship, Myths of Entrepreneurship, Factors affecting growth of Entrepreneurship in India, Role of Entrepreneurship in Economic Development

MODULE - 2 OPPORTUNITY ASSESSMENTS

Opportunity Identification and Selection, Environmental dynamics and changes, Business Opportunities in emerging environment, challenges of new venture start-ups, Pit falls in selecting new ventures, Critical factors for new venture development, Why new ventures fail, Sources of Finance for New Venture.

MODULE-3 FEASIBILITY ANALYSIS AND CRAFTING BUSINESS PLAN

Feasibility analysis of Industry, Market , Product or service and Finance ; Business plan – Meaning, Significance, contents, formulation and presentation of Business Plan, Common errors in Business Plan formulation

MODULE - 4 LEGAL FORMS OF ENTREPRENEURIAL ORGANIZATIONS

Identifying legal structures, Selection of an appropriate legal structure, Sole proprietorships, Partnerships, Companies, Companies under section 25, Franchising, Legal environment – patents, copyrights, trademarks.

MODULE - 5 SOCIAL ENTREPRENEURSHIP

Introduction, Meaning, Perspective of social entrepreneurship, Social entrepreneurship in practice, Boundaries of Social entrepreneurship, Few experiments

MODULE - 6 ETHICS AND ENTREPRENEURSHIP

Meaning and Need for business ethics, Arguments for and against Business ethics, Ethics and laws, Establishing strategy for ethical responsibility, Approaches to managerial ethics, Ethics and

Business decisions, Frame work for ethical decision making, CSR, Environmental awareness, Ethical leadership by entrepreneurs, Corporate citizenship.

RECOMMENDED READINGS

Essential Readings

1. Kanaka SS- Entrepreneurial development, S Chand -Fourth edition.

2. Robert D. Hisrich and Michael P. Peters, 'Entrepreneurship '. McGraw – Hill

3. Poornima.M.Charantimath, Entrepreneurship Development Small Business Enterprises, Pearson Education

4. Hartman, Laura.P, Perspectives in Business Ethics, McGraw Hill.

REFERENCES

1. Thomas .W.Zimmerer &Norman .M.Scarboraugh, Essentials of Entrepreneurship and Small Business Management, PHI

2. Jeffry .A.Timmons& Stephen spinelli, New Venture Creation, Enterpreneurship for the 21st Century, Tata McGraw Hill.

3. Dr.ArunaKaulgud, Entpreneurship Management, Thomson.

4. Mandal.S.K, Ethics in Business and Corporate Governance, Tata McGraw Hill.

5. Vasant Desai , 'Dynamics of Entrepreneurial Development and Management' Himalaya Publishers

6. RashmiBansal, Take me Home, Westland Ltd, 2014

CLASS PLAN

Sl. No.	Module/Chapter	Topic	Hours Planned
1	1	Concepts of entrepreneur and entrepreneurship	1
2	1	Importance and Characteristics of entrepreneurs	1
3	1	Types of entrepreneurs	1
4	1	Benefits and potential risks of entrepreneurship	1
5	1	Myths of Entrepreneurship	1
6	1	Factors affecting growth of Entrepreneurship in India	1
7	1	Role of Entrepreneurship in Economic Development	2
8	2	Opportunity Identification and Selection	1
9	2	Environmental dynamics and changes	2
10	2	Business Opportunities in emerging environment	2
11	2	challenges of new venture start-ups,	1
12	2	Pit falls in selecting new ventures	1
13	2	Critical factors for new venture development	1
14	2	Why new ventures fail	1
15	2	Sources of Finance for New Venture	1
16	3	Feasibility analysis of Industry	2
17	3	Market	2
18	3	Product or service and Finance	2
19	3	Business plan – Meaning, Significance, contents, formulation and presentation of Business Plan	4

20	3	Common errors in Business Plan formulation	2
21	4	Identifying legal structures	1
22	4	Selection of an appropriate legal structure	1
23	4	Sole proprietorships, Partnerships, Companies,	1
24	4	Companies under section 25, Franchising,	1
25	4	Legal environment – patents, copyrights, trademarks	2
26	4	Introduction, Meaning, Perspective of social entrepreneurship	2
27	5	Social entrepreneurship in practice	2
28	5	Boundaries of Social entrepreneurship	2
29	5	Few experiments	2
30	6	Meaning and Need for business ethics	1
31	6	Arguments for and against Business ethics	1
32	6	Ethics and laws	1
33	6	Establishing strategy for ethical responsibility	1
34	6	Approaches to managerial ethics	1
35	6	Ethics and Business decisions	1
36	6	Frame work for ethical decision making	2
37	6	CSR, Environmental awareness	2
38	6	Ethical leadership by entrepreneurs, Corporate citizenship.	2
TOTAL			**56**

QUESTION BANK

MODULE 1

5 Marks Questions

1. What is the proper definition of a startup?
2. What is the proper definition of an entrepreneur and entrepreneurship?
3. What are the characteristics which make an entrepreneur different from others?
4. Explain the different types of entrepreneurs with examples.
5. Demystify the myths of entrepreneurship.
6. How big a factor is luck in startup success?

10 Marks Questions

1. Enumerate the factors which can/have made India a fertile land for entrepreneurship.
2. Entrepreneurs are the building block of India growth story. Enumerate.
3. Which startups have the best stories?
4. Which is more crucial to the success of a startup: the idea or the execution?

MODULE 2

5 Marks Questions

1. What are the sources of business ideas?
2. What are the benefits of opportunities at the global level.
3. What are the steps in selection of new business opportunities?
4. How can we shortlist the business ideas?
5. What are the common reasons for new venture failures.
6. Explain the various sources of finance for new ventures.

10 Marks Questions

1 What are the various business opportunities in emerging environment?

2 What are the various challenges faced by new venture start ups.

3 What are the common pitfalls in selecting new ventures?

4 Explain the critical factors foe success of a new business.

MODULE 3

5 Marks Questions

1. Define a business plan. Should every entrepreneur create or construct a business plan before launching a new business. if yes, why?
2. Explain the benefits of preparing a business plan.
3. "The more concrete and complete the plan, the more likely it is to earn the respect of outsiders and their support is necessary for financial matters" Discuss
4. What do you mean by profit planning? Discuss the role of break-even analysis and ratios.

10 Marks Questions

1. Describe the major elements of a business plan.
2. What causes the business to fail despite a business plan made by the entrepreneur?
3. Define marketing plan. Discuss its process and limitations.
4. What are the common errors in business plan formulation?

MODULE 4

5 Marks Questions

1. Define
    a. Sole proprietorship
    b. Partnership
    c. Joint stock company
    d. Cooperative organisation
2. Explain the features of Companies under section 25.
3. Explain:
    a. Franchising
    b. Licensing
4. Explain
    a. Patents
    b. Copyrights
    c. Trademarks

10Marks Questions

1. Discuss various factors affecting ownership form.

2. For a large scale which form of business organisation is better and why?
3. What is a cooperative organisation? Discuss its merits, demerits and suitability
4. Discuss the various aspects of registration of a small scale unit

MODULE 5

5 Marks Questions

1. What do you mean by social entrepreneurship?
2. What are the perspective of social entrepreneurship?
3. What are the fundamental differences between a social and for-profit founders?
4. What are the fundamental differences in the people who go to work for a social versus not-for-profit startup?
5. In the for-profit world, you keep score with sales revenue—how do you keep score in the not-for-profit world?

10 Marks Questions

1. Give few successful experiments in the field of social entrepreneurship .
2. How can social entrepreneurs attract talent when there aren't high salaries and options?
3. What could government or society do to encourage more social entrepreneurship?

MODULE 6

5 Marks Questions

1. Define business ethics.
2. What is the need for business ethics:
3. Explain the relation between ethics and laws.
4. What could be the various strategies for establishing strategy for ethical responsibility?
5. What are the approaches to managerial ethics
6. How ethics impact Business decisions.
7. What is corporate citizenship?

10 Marks Questions

1. What are the various arguments for and against Business ethics

2. What are the various frame work for ethical decision making
3. Explain CSR.
4. Explain the importance of environment awareness in business decisions.
5. Write a note on ethical leadership by entrepreneurs.

CASE STUDIES

Growth Dilemma for Entrepreneurial Ventures: The case of "Honest Tea"

Seth Goldman left a mutual fund job in 1998 with the firm belief that he could develop a wholesome and healthy alternative to sugary drinks that never seemed to quench his thirst. He did some initial research and teamed up with Barry Nalebuff, a professor he knew from the Yale School of Management, and started "Honest Tea" at Bethesda, Maryland in the US. The initial investment of $500,000 was financed by family and friends. Goldman made the first sale to "Whole Foods Market", by carrying several thermoses of iced tea and a sample bottle with a makeshift label that persuaded the grocer to order 15,000 bottles. The first batches of flavored tea were made in Goldman's kitchen. In the same year production was shifted to Buffalo, New York.

The most exciting part of this beverage iced tea business for Goldman, was coming upwith new products and flavors like "Pomegranate Tea", "Black Forest Berry", "Peach Oo-la-long" or "Heavenly Lemon Tulsi". Honest Tea beverages were all made with organic ingredients and natural sweeteners with organic tea leaves imported from Darjeeling and Assam. The most challenging part of the business though was getting the product distributed on a profit-making scale. The going was tough and Goldman spent considerable time trying to build distribution. That meant lots of trade shows, cold calls and nights at modest motels in shared rooms, to sign up independent distributors.

Honest Tea had come a long way from 3 employees and $250,000 sales in 1998 to 52 employees and revenues of $23 million in 2007. In 1999 the first organic tea and Decaf Ceylon was launched with the addition of new clients like Wild Oats, Harris Teeter and

Food Emporium. Net sales for 1999 were $1.1 million. In 2000, eight varieties of tea bags and another organic tea "Jakarta Ginger" were introduced, with net revenues of $1.8 million. By 2001, 50% of Honest Tea offerings were organic and the company partnered with "City Year", a non-profit organization, which brings young people for a year of community service. Net revenue jumped to $3.2 million. In 2002 Honest Tea became the best selling bottled tea brand in the natural foods industry. They also launched organic herbal tea made with chamomile and dried limes. Sales topped $4.6 million.

In the year 2003, the company launched two new flavors ,"Peach-Oo-la-long" and "Green Dragon Tea with tea leaves sourced from Darjeeling and China. Net revenues were $5.5 million. In the year 2004 the company got organic USDA certification for all twelve varieties of bottled tea and eight tea-bag varieties. Honest Tea became the only tea company to offer an entire line of organic bottles and bags. The company was listed on the Inc. 500 list of fastest growing private companies. Net sales rose to $5.9 million. In 2005 Honest Tea introduced the first "white teas" in both the glass and PET bottle lines. The company also made its foray into a non-tea product with "Honest Ade Limeade and Cranberry Lemonade" organic citrus quenchers. Total sales jumped to $9.6 million.

2005 saw net revenues jump to $13.5 million. Two more product lines were added like "Just Green Tea" and "Just Black Tea" in the unsweetened variety. The "Just Tea" line barely hit the shelves before being named clear choice award winner by the glass packaging institute for excellence in packaging. 2007 saw the launch of nine new products along with "Honest Kids" with three flavors, "Goodness Grapeness", "tropical Tango Punch" and "Berry Berry Good Lemonade". New board members were inducted and sales clocked $23 million. Due to carefully cultivated business relationship with a group of angel investors, Goldman could raise around $8 million during the past nine years.

Goldman and his partner Barry did some serious introspection and realized that their venture, though doing very well, needed a faster and higher trajectory growth to be

counted among the big boys of the industry. The beverage market was dominated by the big sugary players like Coca Cola and Pepsi and Goldman would need huge investments for a nationwide distribution network. He was exploring VC financing, but their terms and value-addition were not attractive enough. Then out of the blue, in early 2008, Goldman got a call from Coca-Cola's Venturing and Emerging Brands group, which was expanding Coke's ability to meet consumer demand for lower-calorie healthier drinks. Coca Cola was seriously considering a minority stake investment in Honest Tea and invited Goldman to come to Atlanta and finalize the deal.

Should Seth Goldman go for it?

Copyright © 2011 Prof. Deepak Roy. To be used for class discussion on entrepreneurship

Reference: Interaction with the founders, company archives, press releases, & lots of curiosity

Chulha

After completing their MBA, Adesh and Nishant got jobs in the IT sector and were based in Bangalore. Nishant was from Delhi and Adesh was from Kolkata. Both were missing home cooked food and found the offering from the office canteen to be highly unappetizing. They tried out some of the tiffin services but did not find them satisfactory. After thinking about it for some time, they decided to quit their jobs and start a professionally managed tiffin service in Bangalore. They found certain gaps in the current local tiffin service providers which could be easily addressed:

1. Quality is not maintained by other tiffin providers. In Chulha, one of the partners will be directly responsible for quality control to ensure that quality is maintained.

2. Usually the food is cooked by the owner who is a Kannada and has no idea about the taste buds of non-Kannadas who are the main clientele. Chulha plans to have north Indian cooks who can satisfy the demands with non-locals.

3. Currently no tiffin provider has a feedback mechanism in place. Also people have to eat what has been prepared without having any choice. Chulha has developed a website which among other things will deal with these requirements. A forum on the site will help them judge the tastes of their customers and they can adapt the tiffins accordingly.

4. The website (www.chulha.co.in) is going to be the main marketing tool. They will be employing a professional company to optimize it for google search so that it is easily accessible. They will depend on positive word of mouth to spread the word.

Some add-ons will be provided from the word go. Apart from a veg and non-veg menu, they also plan to have a rice-only and a chapatti-only option for various food habits. Later they were planning on regional meals like Gujrati Thali and Bengali Thali. It was also planned to introduce a good sweet dish like shahi tukra or caramel custard. With all these extra services that they are planning on providing, they feel they can charge a premium. Currently the usual rate for a veg tiffin is Rs.30.

With average cost of a veg tiffin at Rs.15, they can afford to charge the same as others but they decided to go with a slight premium.

Veg meal @ Rs.35

Non-veg meal @ Rs.45

Their justification is that the average IT professional will be willing to spend a little more for better food.

The average living costs of a typical IT professional:

@Rs.35 for 25 days in a month (except Sundays), the cost comes to Rs.850 p.m.

An average single IT professional earns Rs.20,000 p.m.

His expenses:

House Rent: Rs.3000

Food: Rs.3000

Shopping etc: Rs.5000

Weekend Entertainment: Rs.4000 (Rs.1000 per weekend)

Discussion Question: Do you think this is a viable business?

Pages 49-51, 'Entrepreneurship' by Rajeev Roy, Oxford University Press, 2008 *Copyright © Rajeev Roy - Associate Professor, XIMB. All rights reserved.*

2.4 HUMAN CAPITAL MANAGEMENT

MODULE – 1 ESSENTIALS OF HCM 8HOURS

Nature of HRM, Scope, functions and importance of HRM, Evolution of HRM, Difference with HRD, Contemporary issues and practices in HRM, Changing concept of HRM in India and in the globe.

MODULE- 2 HUMAN CAPITAL PLANNING AND EMPLOYEE HIRING 8HOURS

Nature of job Analysis, job design, Job evaluation, Human resource planning, Demand forecasting, HR supply forecasting, Need for and factors influencing HRP, Career planning, Promotion, transfer, demotion and separation; Employee hiring- Nature of Recruitment, Sources of recruitment-internal and external, Employee selection, process of employee selection, New recruitment practices Job portals, employee reference, campus recruitment etc.

MODULE – 3 HR DEVELOPMENT 10HOURS

Nature and importance of Training, Methods of training, TNA, Nature of HRD program, Methods of management development and Executive development programs, Development beyond training, Contemporary HRD practices

MODULE – 4 PERFORMANCE MANAGEMENT SYSTEM 8HOURS

Nature and Importance of performance appraisal and PMS, Methods and models, Difference with Performance Appraisal, Future of performance management system

MODULE – 5 COMPENSATION MANAGEMENT AND EMPLOYEE RELATIONS 12 HOURS

Introduction to compensation management, Components of employee and executive compensation, Factors affecting employee compensation, Employee incentive schemes, and Recent trends in compensations management.

Nature of employee relation, Industrial relations**,** Resolution of industrial disputes, Employee grievance, Trade union and their relevance

MODULE – 6 STRATEGIC HRM 10 HOURS

Introduction, characteristics and scope of SHRM, SHRM Vs Conventional HRM, Barriers to strategic HRM, Linking HR strategy with business strategy, SHRM and business performance.

RECOMMENDED READINGS

Essential Readings

1. Gary Dessler and BijuVarkkey (2013), Human Resource Management, Person Publication, 12th Edition.

2. P. Jyothi and D.N Venkatesh (2013), Human Resource Management. Oxford Publication. 2nd Edition.

3. BiswajeetPattanayak (2014),"Human Resource Management", PHI Publications, 4th Edition.

4. V.S.P.Rao and C.B. Mamoria (2012), "Personal Management (Text and Cases)", Himalaya Publications, Thirtieth Edition.

REFERENCES

1. A.M Sheikh, Human Resource development and Management, 3rd Revised edition, S Chand publication

2. Snell and Bohlander, Human Resource Management, South-Western Cengeage Learning. Indian Edition.

3. Uday Kumar Haldar and Juthika Sankar, Human Resource Management. Oxford Higher Education, 2012

4. Seema Sanghi, Human Resource Management, VikasPubllications, 2014

5. Sharon Pande and SwapnalekaBasak, Human Resource Management, Pearson Education, 2012

6. K. Aswathappa, Human Resource Management, McGraw Hill Education 7th edition, 2013)

7. D Gopalakrishna, Case incidents in Human resource Management, IK International Publishers, 2014

CLASS PLAN

Sl No	Module/ Chapter	Topics	Hours Allotted
1	1	**ESSENTIALS OF HCM -** Nature of HRM, SCOPE & FUNCTIONS	2
2		Importance of HRM, Evolution of HRM	2
3		Difference with HRD, Contemporary issues and practices in HRM,	2
4		Changing concept of HRM in India and in the globe.	1
5		Case Study	1
6	2	**HUMAN CAPITAL PLANNING AND EMPLOYEE HIRING** - Nature of job Analysis, job design, Job evaluation	1
7		Human resource planning, Demand forecasting, HR supply forecasting,	1
8		Need for and factors influencing HRP, Career planning	1
9		Promotion, transfer, demotion and separation	1
10		Employee hiring- Nature of Recruitment, Sources of recruitment-internal and external	1
11		Employee selection, process of employee selection, campus recruitment etc.	1
12		New recruitment practices Job portals, employee reference,	1
13		Case Study	1
14	3	**HR DEVELOPMENT** - Nature and importance of Training, Methods of training, TNA	2

15		Nature of HRD program, Methods of management development	2
16		Executive development programs	2
17		Development beyond training,	2
18		Contemporary HRD practices	1
19		Case Study	1
20	4	**PERFORMANCE MANAGEMENT SYSTEM** - Nature and Importance of performance appraisal and PMS,	1
21		Methods and models	2
22		Methods and models	2
23		Difference with Performance Appraisal,	1
24		Future of performance management system	1
25		Case Study	1
26	5	**COMPENSATION MANAGEMENT AND EMPLOYEE RELATIONS -** Introduction to compensation management, Components of employee and executive compensation,	3
27		Factors affecting employee compensation, Employee incentive schemes,	2
28		Recent trends in compensations management	2
29		Nature of employee relation, Industrial relations,Resolution of industrial disputes,	2
30		Employee grievance, Trade union and their relevance.	2
31		Case Study	1
32	6	**STRATEGIC HRM** - Introduction, characteristics and scope of SHRM	2
33		SHRM Vs Conventional HRM,	2
34		Barriers to strategic HRM	2
35		Linking HR strategy with business strategy	1
36		SHRM and business performance	2

37		Case Study	1
TOTAL No. of Hours			**56**

QUESTION BANK

MODULE 1

5 Marks Questions

1) Define human resource management.
2) Give two objectives of HRM.
3) What all components can be included under the scope of HRM?

10 Marks Questions

1) What are the salient features of HRM?
2) Explain in detail the major points of distinction between personnel management and human resource management?
3) What is the difference between HRM and HRD?
4) Elucidate in detail the major functions of HRM?
5) Identify the contemporary issues and practices in HRM.
6) List down the trends and challenges in HRM in the current scenario.
7) Elaborate on the changing concept of HRM in India and in the globe.

15 Marks Questions (Case Study)

MODULE - 2

5 Marks Questions

1) What is human resource planning?
2) Give two advantages of human resource planning?
3) Indicate any two problems of Human Resource Planning?
4) Enlist any four factors which affect Human resource Planning?
5) What is job design?
6) What is job rotation?
7) What is job enlargement
8) What is job enrichment?
9) What is job analysis?
10) What is job specification?
11) What is recruitment?

12) What is "promotion"?
13) What is "transfer"?

10 Marks Questions

1) What is manpower planning? What factors do you consider while forecasting manpower needs of a organization?
2) What are the benefits of human resource planning?
3) Elucidate in detail external factors affecting Human Resource planning.
4) What are the problems faced by organizations in Human Resource Planning?
5) What are the various objectives of recruitment?
6) List down the recent trends in recruitment.
7) Explain the different steps in job analysis process?
8) Distinguish between job specification and employee specification?.What information commonly appears in them.
9) What are the modern sources and technologies of recruitment?
10) Explain in detail the various types of tests in the selection process?
11) What is career planning? Why do organizations need career planning? Outline the steps of career planning process?
12) What do you mean by promotion? What are the kinds of promotions? what according to you should be the basis of promotion?
13) What is transfer? Give reasons as to why transfers take place in the organization?
14) What are the problems in career planning and development? Suggest measure for effective career planning and development?
15) Explain the Employee hiring process.
16) What are the techniques of human resource planning?
17) What are the various types of interview in the selection process?
18) Elucidate in detail the scientific selection process.
19) What are the various factors affecting the recruitment process?
20) What are the major sources of recruitment?

15 Marks Questions: (Case Study)

MODULE-3

5 Marks Questions

1) What is "Human resource"?
2) Explain the concept of human resource development?

3) What is management development?
4) Give two benefits of training?
5) Give two reasons indicating the need of HRD?
6) Enlist 4 types of interview?
7) What is de-jobbing?
8) What is vestibule training?
9) What is TNA?
10) List out the important objectives of training.

10 Marks Questions

1) Explain the concept of HRD? Explain the significance of HRD.
2) What are the functions of HRD manager?
3) What is employee training? Explain important techniques of training.
4) What is the difference between training and development?
5) What is HRD? Explain the features of HRD? How is HRD different from HRM
6) Explain the methods of management development and Executive development programs.
7) What is the need of management development program?
8) Explain in detail on the job and off the job methods of training.
9) Explain process of training in detail?
10) Describe the contemporary HRD practices.

15 Marks Questions: (Case Study)

MODULE -4

5 Marks Questions

1) What is performance appraisal?
2) Give two reasons to prove the need of performance appraisal?
3) What is 360 degree appraisal process?
4) Give any four methods of performance appraisal?
5) What is BARS?
6) Where can we use performance appraisal?
7) What are the two shortcomings of performance appraisal?

10 Marks Questions

1) Explain the methods of performance appraisal?
2) What is the difference between PA and PMS?

3) Describe the model of PMS.Describe in detail the process of performance appraisal?
4) Explain the various traditional and modern methods of PA.
5)"Performance Appraisal is not merely for appraisal but is for accomplishment and improvement of performance". Discuss.

15 Marks Questions: Case Study

MODULE- 5

5 Marks Questions

1) Define wage?
2) Define salary?
3) Give 2 objectives of wage and salary administration?
4) What is dearness allowance?
5) What is bonus?
6) What is social security?
7) What do you mean by fringe benefits?
8) What is co-partnership system?
9) What is retrenchment compensation?
10) What is lay off compensation?
11) What do you mean by "Industrial relations"?
12) Give 2 characteristics of industrial relations?
13) Enlist 4 factors which influence industrial relations?
14) Why harmonious industrial relation important ?Give 2 reasons
15) Give 2 objectives of industrial relations?
16) Give 2 features of collective bargaining?
17) What do you mean by negotiation?
18) What is productivity bargaining?
19) What is a trade union?
20) Give two characteristics of Trade union?
21) Give two functions of trade unions?
22) Give the names of Four trade unions ?
23) What are the two main reasons as to why employees join trade union ?
24) Give two advantages of trade unions?
25) Give two problems of trade union?

10 Marks Questions

1) What are the factors affecting wage and salary administration?
2) What is stock option scheme? Give relative merits and demerits?
3) Give the characteristics features of Industrial relations?
4) Explain any four factors which influence industrial relations?
5) Who are the three pillars of Industrial relations?
6) Mention the essential principles of sound industrial relations?
7) Explain in detail the objectives of industrial relations?
8) What are the main functions of Industrial relations?
9) What problems are faced by trade union?
10) Elaborate Trade unions Act 1926?
11) Describe the components of Executive compensation.
12) List down the various Employee incentive schemes.
13) What are the recent trends in compensations management?
14) Elucidate in detail the various benefits available to an employee?
15) What are the main approaches to Industrial relations?
16) Why is collective bargaining important?
17) Give a detailed note on the principles of Collective bargaining?
18) Explain the functions of trade unions?

15 Marks Questions: (Case Study)

MODULE 6

5 Marks Questions

1) What is a strategy?
2) What is strategic management?

10 Marks Questions

1) What is the difference between Conventional HRM and SHRM
2) What are the barriers to strategic HRM
3) Explain the strategic management process?
4) What is a strategy? Discuss various strategies at different levels of an organization?
5) Describe the impact of SHRM on business performance
6) What are the human resource strategies? How do you link human resource strategies with the corporate level strategies?
7) "Human resource management is a basic management pertaining to all levels and types of management" discuss?

15 Marks Questions (Case Study)

2.5 FINANCIAL MANAGEMENT

MODULE – 1 INTRODUCTION TO FINANCIAL MANAGEMENT 6 HOURS

Concept of Financial management - Meaning and definitions, Scope of Financial Management, finance functions, Financial Goals of a firm, Agency problem, Emerging role of finance manager in India.

MODULE - 2 TIME VALUE OF MONEY 6 HOURS

Compounding, Continuous Compounding, Effective Rate of Interest, Discounting – Single Cash Flows & Series of Cash Flows, Annuity – Future Value and Present Value, Present Value of Growing Annuity, Perpetuity – Present Value, Growing Perpetuity – Present value, Equated Annual Installments.

MODULE – 3 LONG-TERM FINANCING DECISIONS 12 HOURS

CAPITAL STRUCTURE DECISIONS - Sources of Funds: Short term sources, Long term sources, Venture Capital: features, stages and types of venture capital. Factors influencing capital structure, Benefit to Owners – EBIT – EPS Analysis, Point of Indifference, Financial Break-even Point.

Cost of Capital- Methods of computing cost of capital: Cost of Equity Capital, Cost of Preferred Capital, Cost of Debt Capital, Cost of internally generated funds, Weighted Average Cost of Capital (Theory and Problems). Leverages-Types and Measurement

MODULE – 4 LONG-TERM INVESTMENT DECISIONS 12 HOURS

CAPITAL BUDGETING DECISIONS - Meaning of Capital Budgeting, Significance, Principles, Capital budgeting proposals, Methods of appraising proposals; Payback period, ARR, IRR, MIRR, NPV, Profitability Index, Utility Method, EVA Method, APV Method, Capital Rationing.

MODULE - 5 SHORT-TERM FINANCING AND INVESTMENT DECISIONS (WORKING CAPITAL MANAGEMENT) 14 HOURS

Concept of working capital, factors determining working capital, Sources of working capital, estimating working capital needs, Managing cash, marketable securities, debtors and inventory.

MODULE - 6 DIVIDEND DECISIONS 6 HOURS

Meaning, Theory of relevance and Theory of Irrelevance, Walter's Model, Gordon's Model (Theory and Problems) Types of dividends, Bonus Shares, Stock Splits.

RECOMMENDED READINGS

Essential Readings

1. Van Horne, James, "Financial Management and Policy", Prentice Hall.

2. Brealy, Richards; and Myers, Stewart, "Principles of Corporate Finance", Tata McGraw-Hill

3. Ross, Stephen; Westerfeild, Randolph, Jaffe, Jeffrey and Kakani, Ram Kumar, "Corporate Finance", Eighth Edition, McGraw Hill.

4. Gitman, J. Lawrence, "Principles of Managerial Finance", Pearson Education.

5. Damodaran, Aswath, "Corporate Finance", John Wiley & Sons Inc.

6. DamodaranAswath, "Applied Corporate Finance", John Wiley & Sons Inc.

7. Chandra, Prasanna, "Financial Management – Theory and Practice", Tata McGraw-Hill Publishing Company Limited.

8. Pandey, IM,"Financial Management", Vikas Publications.

9. Khan, M.Y., and Jain, P.K., "Financial Management – Text, Problems and Cases", Tata McGraw-Hill Publishing Company Limited.

REFERENCES

1. Kishore, M. Ravi, "Financial Management – with Problems and Solutions", Taxmann Allied Services (P) Ltd.

2. Rajiv Srivastava, Anil Misra- Financial Management, Oxford Higher Education 2013.

3. Shashi K Gupta, R K Sharma Financial Management- Theory and practice, Kalyani publishers 8th edition.

4. Bodhanwala, J. Ruzbeh, "Financial Management using Excel Spreadsheet", Taxmann Allied Services (P) Ltd.

5. Bahal, Mohit, "Practical Aspects of Financial Management", SuchitaPrakashan (P) Ltd.

6. Sharma, Dhiraj, "Working Capital Management – A conceptual Approach", Himalaya Publishing House.

7. Bhalla, V.K., "Financial Markets and Institutions", S.Chand and Co.

8. Hampton, John, "Financial Decision Making – Concepts, Problems and Cases", Prentice Hall of India.

9. Hawawini, Gabriel and Viallet, Claude; "Finance for Non-finance Managers", South- Western CENGAGE Learning.

10. Khan, M.Y; "Indian Financial System", TheMcGraw Hill Companies.

11. Sharma, Meera; "Management of Financial Institutions", Eastern Economy Edition.

12. Bhole and Mahakud, "Financial Institutions and Markets – Structure, Growth and Innovations", The McGraw Hill Companies.

13. Guruswamy, S., "Financial Services and System", McGraw Hill Companies.

CLASS PLAN

Sl. No.	Module/Chapter	Topic	Hrs allotted
1	1	Meaning & Definitions	1
2		Scope of FM	1
3		Finance Functions	1
4		Financial Goals	1
5		Agency Problem	1
6		Emerging role of financial manager in India	1
7	2	Compounding, Continuous Compounding	1
8		Effective Rate of Interest	1
9		Discounting - Single cash flows, series of cash flows	1
10		Annuity - FV & PV, PV of growing annuity	2
11		Perpetuity - PV, growing perpetuity, PV, EAI	1
12	3	Sources of Funds - Short term sources, Long term sources, VC:features, stages & types of VC, Factors influencing capital structure	2
13		Benefit to owners - EBIT-EPS Analysis, point of indifference, Financial Break-even Point	2
14		Cost of capital - Methods of computing, Cost of equity capital, Cost of Preferred capital,	4
15		Cost of Debt Capital, Cost of internally generated funds, WACC	2
16		Leverages - Types	1
17		Leverages - Measurement	1
18	4	Meaning & Significance	1
19		Principles	1

20		Capital Budgeting Proposals	2
21		Methods of appraising proposals	2
22		Payback Periods, ARR, IRR, MIRR, NPV, PI	2
23		Utility Method, EVA	2
24		APV Method, Capital Rationing	2
25	**5**	Concept of WC	1
26		Factors determining WC & Sources	2
27		Estimating WC needs	2
28		Managing Cash	3
29		Marketable Securities	3
30		Debtors & Inventory	3
31	**6**	Meaning	1
32		Theory of Relevance & Irrelevance	2
33		Walter's Model, Gordon's Model (Theory & Problems)	2
34		Types of Dividends, Bonus shares, stock splits	1
TOTAL			**56**

QUESTION BANK

MODULE 1

5 Marks Questions

1. Define Financial Management.
2. What is finance function?
3. What is meant by Agency Problem?

10 Marks Questions

1. Discuss in detail the scope of financial management.
2. What do you mean by wealth maximization and profit maximization? Which one do you suggest?

3. "Investment, financing and dividend decisions are all inter related." Comment.

15 Marks Question (Case Study)

MODULE 2

5 Marks Questions

1. State the general formula for the future value of single amount.
2. What is the difference between compound and simple interest?
3. Explain the rule of 72.
4. Explain the rule of 69. How does it compare with the rule of 72.

10 Marks Questions

1. State the relationship between effective rate of interest and nominal rate of interest.
2. A 12- payment annuity of Rs. 10,000 will begin 8 years hence. (The 1st payment occurs at the end of 8 years). What is the PV of this annuity if the discount rate is 14%?
3. You want to take a world tour which costs Rs. 1000,000 – the cost is expected to remain unchanged in nominal terms. You are willing to save annually Rs. 80,000 to fulfill your desire. How long will you have to wait if your savings earn a return of 14% p.a.?
4. Shyam borrows Rs. 80,000 for a musical system at a monthly interest of 1.25%. The loan is to be repaid in 12 equal monthly installments, payable at the end of each onth. Prepare the loan amortization schedule.
5. Suppose someone offers you the following financial contract. If you deposit Rs. 20,000 with him he promises to pay Rs. 4000 annually for 10 years. What interest rate would you earn on this deposit?

15 Marks Question (Case Study)

MODULE 3

5 Marks Questions

1. How is cost of debt calculated?
2. How is cost of preference calculated?
3. Discuss the application of CAPM to the calculation of cost of equity.

10 Marks Questions

1. What are the three steps involved in calculating a firm's WACC?
2. "Marginal cost of capital is nothing but the average cost of capital", Explain.
3. What is cost of equity? Write a detailed note on the approaches available for computation of cost of equity.

4. A company has earnings available to ordinary shareholders Rs. 500,000. It has capital Rs. 50,00,000 face value of Rs. 100 each. The company's share is selling at Rs. 200. Compute the cost of equity.

15 Marks Question (Case Study)

MODULE 4

5 Marks Questions

1. What is NPV?
2. What are the limitations of NPV?
3. What is IRR?
4. What is payback period?

10 Marks Questions

1. Discuss the phases of capital budgeting
2. Why is MIRR superior to the regular IRR?
3. The expected cash flows of a project are as follows:

Year	Cash Flow
0	-100,000
1	20,000
2	30,000
3	40,000
4	50,000
5	30,000

The cost of capital is 12%. Calculate the following: (a) NPV, (b) benefit cost ratio (c) IRR, (d) MIRR, (e) pay back period (f) discounted pay back period

4. Your company is considering two mutually exclusive projects A & B. Project A involves an outlay of Rs. 100 million which will generate an expected cash inflow of Rs. 25 M per year for 6 years. Project B calls for an outlay of Rs. 50 M which will produce an expected cash inflow of Rs. 13 M per year for 6 years. The company's cost of capital is 12%. Calculate (a) NPV and IRR of each project

(b) What is the NPV and IRR of the differential project (project A over B)

15 Marks Question (Case Study)

MODULE 5

5 Marks Questions

1. What is working capital management
2. Distinguish between permanent working capital and variable working capital.
3. List out the components of current assets.
4. What is cash cycle?

10 Marks Questions

1. What is working capital? Is there any significance difference in the concepts of gross working capital and net working capital? Discuss in detail.
2. "Working capital deals with the decisions regarding the appropriate mix and level of current assets and current liabilities". Elucidate the statement.
3. From the following information of RRR Company Ltd, for the next year, you are required to estimate the working capital needed to finance a level of activity of 208000 units of productions after adding a 5% safety contingency.

	Cost P.U (Rs.)
Raw Materials	160
Direct Labour	60
Overheads (including depreciation of Rs. 10)	130
Total Cost	350
Profit	50
Selling Price	400

Additional information:

Average raw materials in stock: one month

Average materials –in-process (50% of completion stage): Half a month

Average finished goods in stock: one month

Credit allowed by suppliers: one month

Credit allowed to suppliers: two months

Time lag in payment of wages: one and half weeks

All sales are credit sales. Cash balance is expected to be Rs. 75,000. You may assume that production is carried on evenly throughout the year and wages and overhead expenses accrue similarly.

15 Marks Question (Case Study)

MODULE 6

5Marks Questions

1. What are the implications of the Walter Model?
2. State Gordon's basic valuation formula.
3. What is the substance of M&M 'dividend irrelevance ' theorem?
4. Discuss the criticisms of the M&M position.

10 Marks Questions

1. The following information is available for Avanti Corporation.
   EPS : Rs.4

   Rate of return on investments: 18%

   Rate of return required by shareholders: 15%

   What will be the price per share as per the Walter Model if the payout ratio is 40%? 50%? 60%?

2. "A low dividend payout ratio promotes the welfare of stockholders because long term capital gains are treated more favorably than dividend income from the tax point of view."Discuss.
3. Discuss the implications of the rationale expectations hypothesis for the dividend policy of a firm.

15 Marks Question (Case Study)

2.6 QUANTITATIVE TECHNIQUES & OPERATION RESEARCH

MODULE ONE **10 HOURS**

Origin and development: Importance, scope, techniques and characteristics, Optimization concept, Different types of models, Linear programming problem, Formulation, Product allocation, Blending and diet problems, Graphical solution, Simplex method (standard maximization)problems, Formulation of duality.

MODULE TWO **10 HOURS**

Transportation: Importance, terminologies used, different methods for finding Initial basic feasible solution; NWCM, LCM and VAM, unbalanced, degeneracy in transportation, test for optimality (MODI method only), maximization problems.

MODULE THREE **10 HOURS**

Assignment: Importanceand characteristics of assignment problem, methods-minimization, maximization, balanced, unbalanced, prohibited and travelling salesman and crew assignment problems. Sequencing: terminologies and notations, types of sequencing problems; processing 'n' jobs through 2 machines, processing 'n' jobs through 'm' machines.

MODULE FOUR **10 HOURS**

Network analysis: Phases, objectives, basic rules, PERT and CPM techniques, critical path and float analysis, probabilities in PERT analysis, project crashing problems.

MODULE FIVE **6HOURS**

Theory of games: Types, pure and mixed strategies with two people zero sum game, principle of dominance.

Queuing Theory(waiting line): Single server/single queue, essential features of queuing system, single queue, operating characteristics of queuing system, probability distribution in queuing system, multi server, description of other queuing models (only description).

MODULE SIX **10HOURS**

Simulation: Basic concepts, procedures and application, Monte Carlo simulation using Random

numbers. Replacement Models: Failure mechanism of items, assumptions of replacement theory, types of replacement problems, replacement of items which deteriorates with time, replacement of items that fail completely including group replacement.

RECOMMENDED READINGS

Essential readings

1. K.K.Chawla and Vijay Guptha,Operation research, quantitative techniques for management,Kalyani, 7th edition, 2014

2. N.D. Vohra (2012), "Quantitative techniques in management", Tata McGraw-Hill Publications, 4th Edition.

3. P.C Tulsian and Vishal Pandey (2012), quantitative techniques. Pearson Practice series. Low price Edition.

4. J.K.Sharma,Quantitative methods and operation research, Excel publication, 2012

REFERENCES

1. David M. Lenine (2012), quantitative techniques for management. Pearson publication.

2. Fedric S Hiller and Gerald J Lieberman (2012), introduction to operation research. 8th edition.

3. Er. Prem Kumar Guptha and Dr. D.S. Hira (2014), operation research. S.Chand publications.

4. Veerabadrappa Harinal (2012),An introduction to operation research. New Age international publishing.

5. Anand Sharma (2014), quantitative techniques for decision making. Himalaya Publishing House.

6. S. Kalavathi (2013), operation Research. Vikas Publications. 4th edition.

7. HamdyATaha (2013), operation research. Pearson publication. 9th edition.

8. G.V Shenoy and V.K. Srivathsava (2013), operation research for managerial decision. New Age international publishing.

9. PradeepprakashkarPai (2013), operation research principle and practices. Oxford Higher Education.

10. P.Rama Murthy (2014), operation Research. New Age international publishing. 2nd Edition.

11. C.K. Mustafi (2009), operation Research methods and practices. New Age international publishing. 3rd Edition

CLASS PLAN

Sl. No.	Module/Chapter	Topic	Hours allotted
1	1	Introduction	1
2		Linear programming problem	1
3		Graphical method	1
4		Simplex Method	2
5		Big M Method	2
6		Two Phase Method	1
7		Duality Theory	1
8		Sensitivity Analysis	1
9	2	Transportation Problem	1
10		IBFS-NWC Method	2
11		IBFS-LC method	1
12		IBFS- VA Method	2
13		Modi Method	2
14		Un balanced and Degeneracy	1
15		Transhipment problem	1
16	3	Introduction	1
17		Balanced, unbalanced problems	1
18		Hungarian method	2
19		Travelling assingment	2
20		Crew Assingment problem	2
21		Sequencing problems	2
22	4	Introduction	1
23		CPM	4
24		PERT	4
25		Project crashing	1
26	5	Game Theory - Zero Sum Game	1
27		Game Theory - Dominance rule	1
28		Queuing Theory - probability distributions	1
29		Queuing Theory - Single server	1
30		Queuing Theory - Multi server	2
31	6	Simulation - Introduction	1
32		Procedure and application	2
33		Monte carlo Simulation	2
34		Replacement Modules _ introduction	1

35		Failure mechanism of Items	1
36		Individual Replacement	1
37		Group Replacement	2
TOTAL			**56**

QUESTION BANK

MODULE 1

5 marks Questions

1. State the importance of LPP in different fields in decision making.
2. Explain the graphical, method of sloving LPP.
3. Explain the term objective functio, feasible solution and optimal solution.
4. How do you find solutions using simplex methods?
5. A company makes two kinds of leather belts. Belt 'A' is a high quality belt and belt'B' is of lower quality. The respective profits are Rs.3 and Rs.4 from these varieties. Each belt of type A requires twice as much time as belt B, and, if all belts were of type B, thecompany could make 1000 per day. The supply of leather is sufficient for only 800 per dayand both the belts require same amount of leather. Belt A requires a fancy buckle of whichonly 400 is available per day and an ordinary buckle needed for B type is available to theextent of 700 per day. Formulate this as a linear programming problem.
6. Give Introduction about operation research
7. Define O.R. and discuss its scope in business activities.

3. Discuss various phases in solving O.R. problems.
4. What are the Characteristics of Operations researches?
5. What are the Models used in O.R. studies?
6. What are the Principles of modeling?
7. Brief the general methods for solving O.R. models.

8. Explain the standard form of an LPP.

9. Define slack, surplus and artificial variable

10. Define General Linear Programming Problem (LPP)

11. Explain the characteristics of LPP or what are the assumptions of LPP?

12. Define Solution, Feasible solution and Optimum solution

13. Define unique optimum solution, multiple optimum solutions

14. Define Basic & Non basic variable

15. Define unbounded and degenerate solutions.

16. Define dual problem and primal problem.

10 Marks questions:

1. Ashok Chemicals Company manufactures two chemicals A and B which are sold tothe manufacturers of soaps and detergents. On the basis of next month's demand, themanagement has decided that the total production of chemicals A and B should be at least 350kilograms. Moreover a major customer's order for 125 kilograms of product A must also besupplied. Product A requires two hours of processing time per kilogram, and product Brequires one hour of processing time per kilogram. For the coming month, 600 hours of processing time are Available.The Company wants to meet the above requirements at minimum total productioncost. The production costs are Rs.2 and Rs.3 per kilo of product A and B Respectively.The Company wants to determine the optimal product mix and the total minimumcost.1.Formulate the above as a linear programming problem.2.Solve the problem with the graphical method.

2. Given the following constraints, maximize and minimize the value of $z = -0.4x + 3.2y$. Use graphical method.

$$\left\{\begin{array}{l|l} x \geq 0 & x+y \leq 7 \\ y \geq 0 & x+2y \geq 4 \\ x \leq 5 & y \leq x+5 \end{array}\right\}$$

3. You need to buy some filing cabinets. You know that Cabinet X costs Rs.10 per unit, requires six square feet of floor space, and holds eight cubic feet of files. Cabinet Y costs Rs.20 per unit, requires eight square feet of floor space, and holds twelve cubic feet of files. You have been given Rs.140 for this purchase, though you don't have to spend that much. The office has room for no more than 72 square feet of cabinets. How many of which model should you buy, in order to maximize storage volume?

4. For the following LP show the starting basis (bfs) of the Big M method (form the initial tableau only!). At the initial tableau, show the leaving and entering variables.

   Min: 4 x1 + x2

   Subject to. 3 x1 + x2 ≥ 10: x1 + x2 ≥ 5: x1 ≥ 3: x1, x2 ≥ 0

5. Answer the following questions related with the model given below:
   min x1 + x2
   Subject to . x1 ≤ 5 : x2 ≤ 4
   a. Use the Graphical Method to solve the model.
   b. Use the Simplex Algorithm to solve the model.

6. Write the steps involved in Two-phase method.
7. What are the disadvantages of BIG M method over Two phase method?
8. Construct the dual to the primal problem.

Maximize $Z = 2x_1 + 3x_2$

Subject to $3x_1 + 2x_2 \le 35$

$2x_1 + 6x_2 \le 50$

$5x_1 - 3x_2 \le 10$

$x_2 \le 20$

$x_1 \ge 0,\ x_2 \ge 0$

9. Construct the dual of the problem.

Minimize $Z = 5x_1 - 4x_2 + 6x_3$

Subject to $4x_1 + 7x_2 - 2x_3 \ge 2$

$x_1 - 2x_2 + 5x_3 \ge 3$

$7x_1 - 2x_2 - x_3 \le 10$

$6x_1 + x_2 + 3x_3 \ge 4$

$3x_1 + 5x_2 + 4x_3 \ge 7$

$x_1,\ x_2,\ x_3 \ge 0$

10. Construct the dual of the problem.

Maximize $Z = 3x_1 + 17x_2 + 9x_3$

Subject to $x_1 - x_2 + x_3 \ge 3$

$-3x_1 + 2x_3 \le 1$

$x_1,\ x_2,\ x_3 \ge 0$

15 Marks question:

1. For the following LP show the starting basis (bfs) of the Big M method (form the initial tableau only!). At the initial tableau, show the leaving and entering variables. min 4 x1 + x2 s.t. 3 x1 + x2 ≥ 10 x1 + x2 ≥ 5 x1 ≥ 3 x1, x2 ≥ 0 and solve

2. Consider the following problem.

Max 3x1 + 2x2 Subject to: 3x1 + x2 ≤ 12 : x1 + x2 ≤ 6 : 5x1 + 3x2 ≤ 27 : x1, x2 ≥ 0.

a) Solve the problem by the original simplex method (in tabular form).

b) Identify the complementary basic solution for the dual problem obtained at each iteration. b) Solve the dual of this problem by the dual simplex method. Compare the resulting sequence of basic solutions with the complementary basic solutions obtained in part (a).

3. Consider the following LP; $min\ z = 5x1 + 3x2 - 2x3\ \ subject\ to;\ x1 + x2 + x3 \geq 4\ 2\ x1 + 3x2 - x3 \geq 9\ x2 + x3 \leq 5\ x1, x2, x3 \geq 0$ and solve

4. Given the linear programming problem.

Maximize $Z = 3x_1 + 5x_2$

Subject to $3x_1 + 2x_2 \leq 18$

$x_1 \leq 4,\ x_2 \leq 6$

$x_1\ \ x_2 \geq 0$

a) Obtain optimal solution to the LP problem.

b) Find the effect on the optimality of the solution when the objective function is changed to $Z = 3x_1 + x_2$

5. Change in Right hand side constant.

Given LPP

Minimize $Z = 3x_1 + 6x_2 + x_3$

Subject to $x_1 + x_2 + x_3 \geq 6$

$x_1 - 5x_2 - x_3 \geq 4$

$x_1 + 5x_2 + x_3 \geq 24$

$x_1, x_2, x_3 \geq 0$

Solve the LPP and discuss the effect of changing the requirement vector from $[6 \quad 4 \quad 24]$ to $[6 \quad 2 \quad 12]$ on the optimum solution.

MODULE 2

5 marks Questions

1. Explain the use of transportation problem? Neatly explain standard form of transportation problem.
2. What do you mean by balanced transportation problem? Given an example
3. Explain least cost method of obtaining initial basic feasible solution under transportation problem
4. Explain NWC method of obtaining initial basic feasible solution under transportation problem
5. Explain VAM of obtaining initial basic feasible solution under transportation problem
6. Explain MODI mehtod of obtaining initial basic feasible solution under transportation problem
7. What do you mean by Degeneracy in transportation problem?

10 mark Questions:

1. Find the initial basic feasible solution for the transportation problem by least cost method and VAM.

	D1	D2	D3	D4	availability
O1	21	16	25	13	11
O2	17	18	14	23	13
O3	32	27	18	41	19
Demand	6	10	12	15	

2. Define the following terms

a) Non-degenerate Basic feasible solution

b) Degenerate Basic feasible solution

c) Balanced & unbalanced transportation problem

3.. Explain the steps involved in finding initial basic feasible solution using.

a) North – west corner rule

b) Matrix minima [Least cost] method.

4. Explain the steps involved in finding initial basic feasible solution using VAM method.

15 mark Questions:

1.Solve the transportation problem by vogel's approximation Method.

	Destination				Supply
Origins	1	5	3	3	34
	3	3	1	2	15
	0	2	2	3	12
	2	7	2	4	19
Demand	21	25	17	17	

2.. Solve the transportation problem by Least cost Method& Vogel's Approximation Method

	Destination			Supply
Origins	1	2	6	7
	0	4	2	12
	3	1	5	11
Demand	10	10	10	

5.

	D1	D2	D3	D4	Availability
O1	6	1	9	3	70
O2	11	5	2	8	55
O3	10	12	4	7	90
Requirement	5	35	50	45	

	D1	D2	D3	D4	Availability
O1	21	16	25	13	11
O2	17	18	14	23	13
O3	32	27	18	41	19
Requirement	6	10	12	15	

6.

7.

8. 4. Solve the transportation problem by Vogel's Approximation to find the initial basic Feasible solution.

9.

10. Solve the transportation problem by Vogel's Approximation to find the initial basic Feasible solution.

F2	15	13	8	8	9
F3	7	12	16	13	11
Requirement	10	7	5	6	

6. Solve, by North West Cornder rule method & find optimum solution for the transportation problem.

MODULE 3

5 Marks Question:

1. What is the objective of Assingment problem? How it is useful in practical Situation
2. Explain Hungarian method/Assignment Algorithm or reduced matrix method.
3. Write a note on unbalanced assignment problem.
4. Write the standard form of Assignment problem.
5. What do you mean by sequencing?
6. 13. What are the principle assumptions of sequencing?
7. 14. What are the steps involved in processing 'n' jobs with 2 machines?

10 Marks Questions:

1. A manager has four salesman and four sales Districts. The estimates that the profit per day from each salesman in each districts that will result in maximum profit.

		A	B	C	D
Salesman	1	33	21	35	23
	2	29	23	37	31
	3	31	31	33	29
	4	27	25	35	37

2.Prachi Airlines that operates seven days a week has a time table as shown. Crews must have a minimum layover of 6 hours between flights. Obtain the pairing of flights that minimizes layover time away from home. For any given pairing the crew ill be based at the city that results in the smaller layover.

Flight no.	Chennai Departure	Mumbai Arrival	Flight no.	Mumbai Departure	Chennai Arrival
1	7.00a.m	9.00a.m	101	9.00a.m	11 a.m
2	9.00 a.m	11.00 a.m	102	10 a.m	12.00 noon
3	1.30 p.m	3.30 p.m	103	3.30 p.m	5.30 p.m
4	7.30 p.m	9.30 p.m	104	8.00 p.m	10.00 p.m

For each pair also mention the town where the crew should be based?

3.. For the following traveling salesman problem find the best cycle and find the total value.

	A1	A2	A3	A4	A5
A1	-	2	5	7	1
A2	6	-	3	8	2
A3	8	7	-	4	7
A4	12	4	6	-	5
A5	1	3	2	8	-

4.. A company has to assign five workers A, B, C, D,E to Six jobs L,M,N,O,P,Q the cost matrix is given below.

	A	B	C	D	E
L	6	2	5	3	6
M	2	5	8	7	7
N	7	8	6	9	8
O	6	2	3	4	5
P	9	3	8	9	7
Q	4	7	4	6	8

Suggest an optimal Assignment schedule.

8. Five jobs are to be processed and five machines are availale. Any machine can process

any job with resulting profit (in Rupees) as follows.

	A	B	C	D	E
1	32	38	40	28	40
2	40	24	28	21	36

3	41	27	33	30	37
4	22	38	41	36	36
5	29	33	40	35	39

Find the assignment pattern that maximizes the sale.

MODULE 4

5 marks questions

1) What are the phases of project management?
2) Define Project, Activity, Event or node, Path.
3) Define Network, Merge and burst events.
4) Define Dangling and cycling.
5) Define Critical activities, Dummy activities.
6) Define Independent float and free float.
7) Define Total float, time estimates in PERT
3) What are rules for constructing network diagram?
4) What is Fulkerson's Rule?
5) Explain critical path analysis.
6) Explain the construction of critical path.
7) Explain the construction of PERT or PERT method.
8) State the application areas of PERT/CPM Techniques.

9) Write a note on CPM (Critical Path Method).

10. Write a note on updating.

11) Distinguish between PERT and CPM

12) Define

(i) Earliest event time (EI)

(ii) Latest allowable time (LI)

13. Define Network, Merge and burst events

14. Define Dangling and cycling

15. Define Critical activities, Dummy activities.

16. Define Independent float and free float

17. Define Total float, time estimates in PERT

10 Marks questions

1. Draw a network for the following project.
   (i) A is the start event and K is the end event
   (ii) j is the successor event to F
   (iii) C and D are the successor events to B
   (iv) D is the preceding event to G
   (v) E and F occur after event C.
   (vi) E precedes F
   (vii) C restraints the occurrence of G and G which precedes H
   (viii) H precedes J
   (ix) K succeeds event J

2. Draw the network for the following.

   (i) A, B and C are the first activities of the project, can start simultaneously.

   (ii) A and B precedes D.

   (iii) B precedes E, F and H.

   (iv) F and C precede G.

   (v) E and H precedes I and J

   (vi) C, D, F and J precedes K

   (vii) K precedes L

   (viii) I, G, L are the terminal activities of the project

3. Construct a network diagram for the following situation.

   A<D, E ; B, D<F ; C<G ; B<H

4. Construct a network diagram & find the critical path

Activity	A	B	C	D	E	F	G	H
Predecessors	-	A	A	B	C,B	E	D	F,G

15Marks questions

1. Find the critical path for the following.

Activity code	Immediate predecessor Activity	Duration

A	–	10
B	A	2
C	A	3
D	A	5
E	D	6
F	C	15
G	B	5
H	G	2
I	E, F, H	7
	F, H	18

2. Find the critical path for the following.

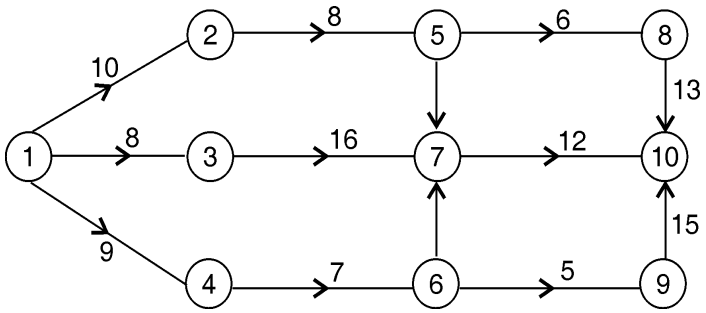
Activity	Time	Activity	Time
1–2	2	4–8	8
1–4	2	5–6	4
1–7	1	6–9	3
2–3	4	7–8	3
3–6	1	8–9	5
4–5	5		

3. A project schedule has the following characteristics construct a network.

Activity	A	B	C	D	E	F	G	I
Imm predecessor	–	–	A	A, B	A, B	C, D	E	F, G
Time	3	4	2	3	5	3	4	2

Obtain critical path.

4. For the given network obtain critical path and TF and FF.



5. For project consisting of the following activities determine the critical path, Earliest start, Finish, Latest start and Finish and float.

Activity	A	B	C	D	E	F
Predecessor	–	A	A	B	B	D, E
Duration (in days)	4	6	8	5	7	5

6.

Define the following terms

a) Optimistic time

b) Pessimistic time

c) Most likely time

7. A small project is composed of 7 activities, whose time estimation is listed.

Activity	t_o	t_m	t_p
1–2	1	1	7
1–3	1	4	7
1–4	2	2	8
2–5	1	1	1
3–5	2	5	14
4–6	2	5	8
5–6	2	6	15

(i) Draw the network.

(ii) Find t_e and variables of each activity and expected project length.

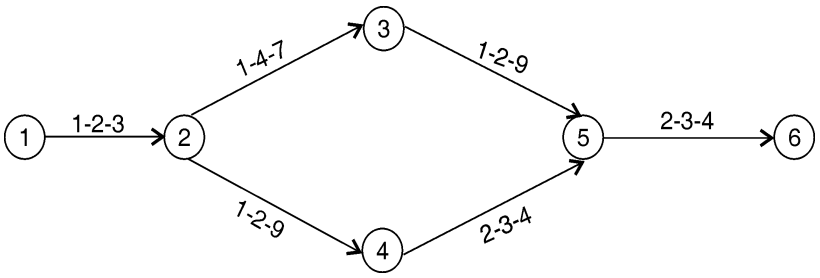
(iii)Calculate S.D & probability for project to be completed at least 4 weeks earlier than expected time.

Not more than 4 weeks later than expected time.

8. For the following network determine critical path. Also find

(i) The probability of completing the project in 14 days.

(ii) The probability of completing the project in 10 days.



8. A project has the following characteristics

Job i-j	Duration (days)		
	t_o	t_m	t_p
1–2	3	6	15
1–6	2	5	14
2–3	6	12	30
2–4	2	5	8
3–5	5	11	17
4–5	3	6	15
6–7	3	9	27
5–8	1	4	7
7–8	4	19	28

Draw the network

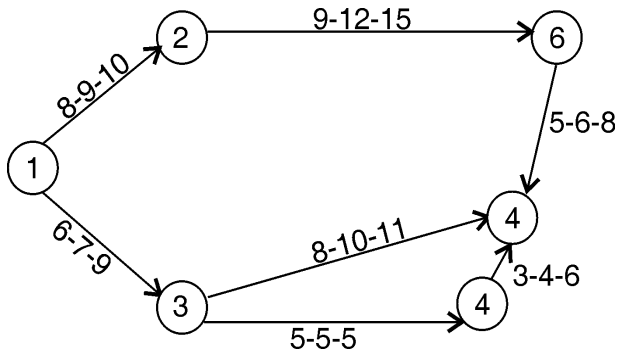
Calculate the length & Variance

Find the probability of completion with in 42 days

10. A project has the following schedule. Draw the network to determine the critical path and the probability of completing the job in 30 days.

Activity	t_o	t_m	t_p
1–2	2	5	14
1–3	9	12	15
2–4	5	14	17
3–4	2	5	8
4–5	6	6	12
3–5	8	17	20

11. For the following PERT network determine critical path and probability of completing the project in 23 days.



12. For the network given, a review of the project after 10 days reveals the following

a) activities 1–2, 1–3 and 2–4 are completed.
b) activity 3–4 is in progress and will take 6 more days.
c) activity 3–5 is in progress and will take 7 days more.
d) it is estimated that due to arrival of new machine, activity 4–6 will take only 6 days formulate a new network after updating and determine the new critical

13. i) Explain the important phases of project management

ii) Draw the network for the following data and find out

a) Total, Free, Independent floats

b) Critical path, Project duration

c) Variance of the critical path

d) Find the probability of completing the project with in 25 days

Activity	Precedence	Optimistic(days)	Most likely	Pessimistic
A	-	7	9	12
B	A	10	14	16
C	A	3	4	6
D	C	4	6	8
E	-	10	14	18
F	E	4	6	8
G	B,D	4	5	6
H	F,G	1	2	3

MODULE 5

5 Mark questions:

1. What is queue? Give instances where queuing system commonly experienced.
2. What are the important components of Queuing process/system?
3. Mention the important classification of customer behavior.
4. What do you mean by Queue service or Discipline?
5. Mention the most common Queue discipline.
6. What is queue length? What are waiting time and service time?
7. Explain steady state, Transient state and Explosive states in a queue system.
8. Mention the different formulae under (M/M/1: FCFS/∞/∞).
9. Mention the different formulae under (M/M/S: FIFO/∞/∞).
10. What is pure birth process?
11. What do you understand by Queuing system?
12. Define saddle point in game theory?
13. Distinguish between pure strategy and mixed strategy.
14. Give the meaning of Game theory.
15. Mention the different types of Games.
16. Explain the steps involved in two persons zero sum game.
17. Explain the method of solving games without saddle point (2 x 2 type).
18. Explain the dominance principle in game theory.

10 Mark questions:

1. Solve the following game

Player X

Player Y			
	-3	5	3
	-3	-3	4
	2	-3	4

2. Solve the following game using dominance rule

Player A

Player B					
	3	5	4	9	6
	5	6	3	7	8
	8	7	9	8	7
	4	2	8	5	3

3. Determine the value of the following game

Player A

Player B		
	5	-5
	-5	5

4. A T.V. repairman finds that the time spent on his job has an exponential distribution with mean 30 minutes. If he repairs sets in the order in which they come in, and if the arrival of sets is approximately poisson with an average of 10 per 8 hour day, what is the repairmen's

expected idle time each day? How many jobs are ahead of the average set just brought in ?

5. There is a congestion on the platform of a railway station. The train arrives at the rate of 30 trains per day. The waiting time for any train to hump is exponentially distributed with an average of 36 minutes. Calculate the following,

   (a) The mean queue size.

   (b) The probability that queue size exceeds 9.

6. What are the Classification of customer behaviors in Queuing Theory.

7. Customers arrival at the sales counter manned by a single person according to a Poisson process with a mean rate 20 per hour. The time required to serve a customer has an Exponential distributions wish a mean of 100seconds find a average waiting time.

15 Marks Question:

1. Solve the following game using dominance rule

Player B

Player A				
	3	2	4	0
	3	4	2	4
	4	2	4	0
	9	4	0	8

2. Solve the following game using dominance rule.

Player A

Player B

9	3	1	8	1
6	5	4	6	7
2	4	3	3	8
5	6	2	2	1

3. Solve the following game

Player B

Player A

19	6	7	5
7	3	14	6
12	8	18	4
8	7	13	-1

4. Find the optimal strategy for player A & B and the value of the game

		Player B				
		I	II	III	IV	V
Player A	I	1	3	2	7	4
	II	3	4	1	5	6
	III	6	5	7	6	5
	IV	2	0	6	3	1

5. At a service counter of fast food joint, the customers arrive at the average interval of six minutes where as the counter clerk takes on an average 5 minutes for preparation of bill and delivery of item. Calculate the following.

    (i) Counter utilization level.
    (ii) Average waiting time of the customers.
    (iii) Expected average waiting time in the line.
    (iv) Average number of customers in the service counter area.
    (v) Average number of customers in the line.
    (vi) Probability that counter clerk is idle.
    (vii) Probability of finding the clerk busy.
    (viii) Probability that the customer is required to wait more than 30 minutes in the system.
    (ix) Probability of having 3 customers in the system.

6. A super market has two girls ringing up sales at the counter. If the service time for each customer is exponential with mean 4 minutes and if people arrive in a poisson fashion at the rate of 10 an hour.

    a) What is the probability of having to wait for service?
    b) What is the expected percentage of idle time for each girl?

7. Customers arrive at the first class ticket counter of a theatre at the rate of 12 per hour... There is one clerk serving the customers at the rate of 30 per hour.

    (i) What is the probability that there is no customer in counter?

    (ii) What is the probability that there are more than 2 customers in the counter?

    (iii) What is the probability that there is no customer waiting to be served?

    (iv) What is the probability that a customer is being served and nobody is waiting?

(v) What is the average queue length?

(vi) What is the expected time of queue?

MODULE 6

5 Mark questions:

1. What do you mean by replacement?

2. How do you solve problems on replacement of items deteriorating with time?

10 Mark questions:

1. Calculate the total elapsed time and idle time from the information given below.

Job	1	2	3	4	5	6
Machine 1	1	14	4	3	8	6
Machine 2	11	6	5	9	3	2
Machine 3	13	12	9	8	13	12

2.. Calculate the total elapsed time and idle time from the information given below.

Job	1	2	3	4	5	6
Machine 1	8	7	6	9	10	9
Machine 2	8	3	7	2	5	1
Machine 3	3	4	5	2	1	6

3. A company has received an offer for two machines A and B. A has a capacity of

Processing of 20 tones and is priced at Rs. 3, 00, 000/-. The operating costs over the estimated life of 5 years for both the types are as follows.

Year	1	2	3	4	5
Type A	6000	7000	9000	10000	11000
Type B	12000	8000	16000	18000	20000

Which dumper is to be preferred?

4. Following failure rates have been observed for a certain type of light bulbs.

Week	1	2	3	4	5
% failure by the end of week	10	25	50	80	100

There are 100 bulbs in use and it costs Rs. 20 to replace an individual bulb which has burn out. It is proposed to replace all bulbs at fixed intervals of time, whether or not they have burnt out and to continue replacing burn out bulbs as and when they fail. At what intervals all the bulbs should be replaced individually?

5.Solve the simulation problem for 10 days

Scooter Production per day	97	98	99	100	101	102	103
Probability	0.05	0.10	0.20	0.25	0.20	0.15	0.05

Produced scooters should be sent through a tempo which has space only for 100 scooters. If more 100 scooters are produced the extra scooter produced be kept and clubbed with next days production. Find the average empty space as well as average waiting of scooters for want of space. Consider the random numbers as 2020, 4073, 5040, 6050, 9530, 9870, 4170, 5180, 2730, 4833.

6. From the past sales records of a TV dealer, the following daily demand and its probability for a TV is obtained.

Daily demand(Units)	2	3	4	5	6	7	8	9	10
Probability	0.06	0.14	0.18	0.17	0.16	0.12	0.08	0.06	0.03

Lead time is 5 days. The dealer would like to study the impact of possible inventory policy of ordering 30 units, whenever the inventory at the end of the day is 20 units. The inventory on hand is 30 units. Using the flowing random numbers, simulate the demand for the next 25 days.

Random Numbers: 3, 38, 17, 32, 69, 24, 61, 30, 3, 48, 88, 71, 27, 80

2.7 INNOVATION MANAGEMENT

MODULE ONE: EXPLORING INNOVATIONS

Concept of innovation, historic retrospective, typology of innovations, innovation process, Macroeconomic view of innovation approaches to innovations, Assumptions and barriers to innovations, Innovation sources, i.e. science and R&D, technology transfer, push and pull approaches. Processes used to explore innovations along the technology, market and strategy dimensions as the innovation moves from idea to market

MODULE TWO: APPLICATION OF INNOVATION

Organizational aspects of innovation, Soft methods and techniques of innovation management, Creative approaches, Systemic and analytical methods and techniques of innovation management, Economic aspects of innovations encompassing sources of innovation financing

MODULE THREE: MARKETING INNOVATION PRODUCTS

Strategic considerations on innovations, innovation platforms that incorporate new product development, process innovations, service innovation, service design innovation, multiple product options, portfolios and standards

MODULE FOUR: EVALUATION OF INNOVATION

Effectiveness evaluation, integration of risks, factors influencing economic effectiveness, Post implementation analysis of innovation projects, Intellectual property of innovations, legal aspects of innovations

MODULE FIVE : INNOVATION IN REALITY

Mindset, lateral thinking, out of box approach, creativity, innovation for problem solving

RECOMMENDED READINGS

Essential readings

1. CK Prahalad and MK Krishnan : The new age of innovation, McGraw Hill

2. Paul Traut: Innovation Management and New product Development ,Pearson

3. Khandwalla: Corporate Creativity, McGraw hill

REFERENCES

1. Mauborgne, René, Blue Ocean Strategy, Boston, Harvard Business School Press, 2005.

2. Snyder, Duarte, Unleashing Innovation, How Whirlpool Transformed an Industry, Jossey-Bass, 2008

3. Mass, Harvard Business School Press, 2006

4. Fraser, Healther, Design Works; Toronto: University of Toronto Press, 2012

5. Govindarajan, Vijay & Trimble, Chris, 10 Rules for Strategic Innovators; Boston: Harvard Business School Press, 2005

6. Govindarajan, Vijay & Trimble, Chris, Reverse Innovation; Boston: Harvard Business School Press, 2012

7. Hamel, Gary, The Future of Management; Boston: Harvard Business School Press, 2007

CLASS PLAN

Sl. No.	Module/ Chapter	Topic	Hours Allotted
1	1	**EXPLORING INNOVATIONS:** Concept of innovation, historic retrospective, typology of innovations, innovation process, Macroeconomic view of innovation approaches to innovations.	3
2		Assumptions and barriers to innovations, Innovation sources, i.e. science and R&D, technology transfer, push and pull approaches.	3
3		Processes used to explore innovations along the technology, market and strategy dimensions as the innovation moves from idea to market.	2
4	2	**APPLICATION OF INNOVATION:** Organizational aspects of innovation, Soft methods and techniques of innovation management	3
5		Creative approaches, Systemic and analytical methods and techniques of innovation management	2
6		Economic aspects of innovations encompassing sources of innovation financing	3
7	3	**MARKETING INNOVATION PRODUCTS:**Strategic considerations on innovations	2
8		Innovation platforms that incorporate new product development	1
9		Process innovations, service innovation, service design innovation	1
10		Multiple product options, portfolios and standards	1
11	4	**EVALUATION OF INNOVATION:** Effectiveness evaluation, integration of risks	1
12		Factors influencing economic effectiveness	1
13		Post implementation analysis of innovation projects	1
14		Intellectual property of innovations	1
15		Legal aspects of innovations	1
16	5	**INNOVATION IN REALITY:** Mindset, lateral thinking	1
17		Out of box approach	1
18		Creativity	1
19		Innovation for problem solving	1

Total No. of Hours	30

Question Bank

MODULE 1

5 Marks Questions

1) Define Innovation. Highlight the approaches to innovations.
2) State the essential ingredients of innovation.
3) Bring out the historical view of innovation.
4) Explain the macroeconomic view of innovation.
5) What is meant by exploring innovations?
6) List the steps involved in exploring innovations.

10 Marks Questions

1) Explain the characteristics and typology of innovation.
2) Describe the steps involved in innovation process.
3) What are the various assumptions and barriers to innovation?
4) Discuss different sources of innovation in detail.
5) Elaborate on technology, market and strategy dimension of innovation.

15 Marks Question (Case Study)

MODULE 2

5 Marks Questions

1) What is Innovation Management? State the objectives of Innovation Management.
2) Bring out the role of individuals in Innovation Management.
3) Give the soft methods and techniques of Innovation Management.
4) What are the sources of funding for innovation?
5) State the organizational characteristics of Innovation Management.
6) What are the systematic techniques?

10 Marks Questions

1) Enumerate the steps involved in Innovation Management Process.

2) Discuss the organizational guidelines for innovation.
3) Explain the various creative approaches in innovation.
4) Describe the organizational structure of Innovation Management.

15 Marks Question (Case Study)

MODULE 3

5 Marks Questions

1) Define Product innovation and process innovation.
2) State the characteristics of a product.
3) State the characteristics of service innovation.
4) What is service design innovation?
5) Highlight the strategic considerations on product innovations.
6) State the benefits of innovation platforms planning.
7) Write a short note on product standards.
8) Bring out the types of process innovations.
9) Classify service innovation.

10 Marks Questions

1) Discuss in detail the classification for product.
2) Explain the factors influencing product decision.
3) Define new product. Discuss in detail the stages of new product development process.
4) Explain product portfolios along with its analysis tools.
5) Discuss the approaches of process innovation.
6) Enumerate the steps involved in new service development process.
7) What are the elements and tools used in service design?

15 Marks Question (Case Study)

MODULE 4

5 Marks Questions

1) What do you mean by effectiveness evaluation of innovation?
2) Explain the intellectual property of innovation.

3) Write a note on Trademarks.
4) What are trade secrets?
5) State the need for evaluation of innovation.
6) Highlight the importance of IPR.
7) List the tools of intellectual property to protect innovations.
8) Explain copyrights.

10 Marks Questions

1) Enumerate the risks associated with innovation.
2) What are the factors affecting the effectiveness of innovation?
3) Explain the stage-gate process of innovation along with the post implementation analysis of innovation projects.
4) Discuss the key dimensions regarding intellectual property and innovation.

15 Marks Question (Case Study)

MODULE 5

5 Marks Questions

1) What is innovation mindset. Bring out the characteristics of innovation mindset.
2) State the applications of lateral thinking.
3) Differentiate between out of the box thinkers and inside the box thinkers.
4) Define creativity. List the components of creativity.
5) Explain creativity and innovation.
6) Give the innovation methods for problem solving.

10 Marks Questions

1. State the elements of innovation mindset. Explain the concept of total innovation involvement.
2. What is lateral thinking? Give the characteristics of lateral thinking.
3. Discuss various techniques of lateral thinking.
4. Explain out of box approach. List the guidelines to think out of box.
5. What are the features of creativity? Describe the creative process in detail.
6. What is problem solving? Enumerate the steps involved in the problem solving.

15 Marks Question (Case Study)

****

PREVIOUS YEARS QUESTION PAPERS

LIBRARY BANGALORE

No. of Printed Pages : 2

PG-608

II Semester MBA (CBCS) Examination, July - 2019

MANAGEMENT 12446

2.1 : Technology for Management

Time : 3 Hours Max. Marks : 70

SECTION - A

Answer **any 5** questions. Each question carries **5** marks. **5x5=25**

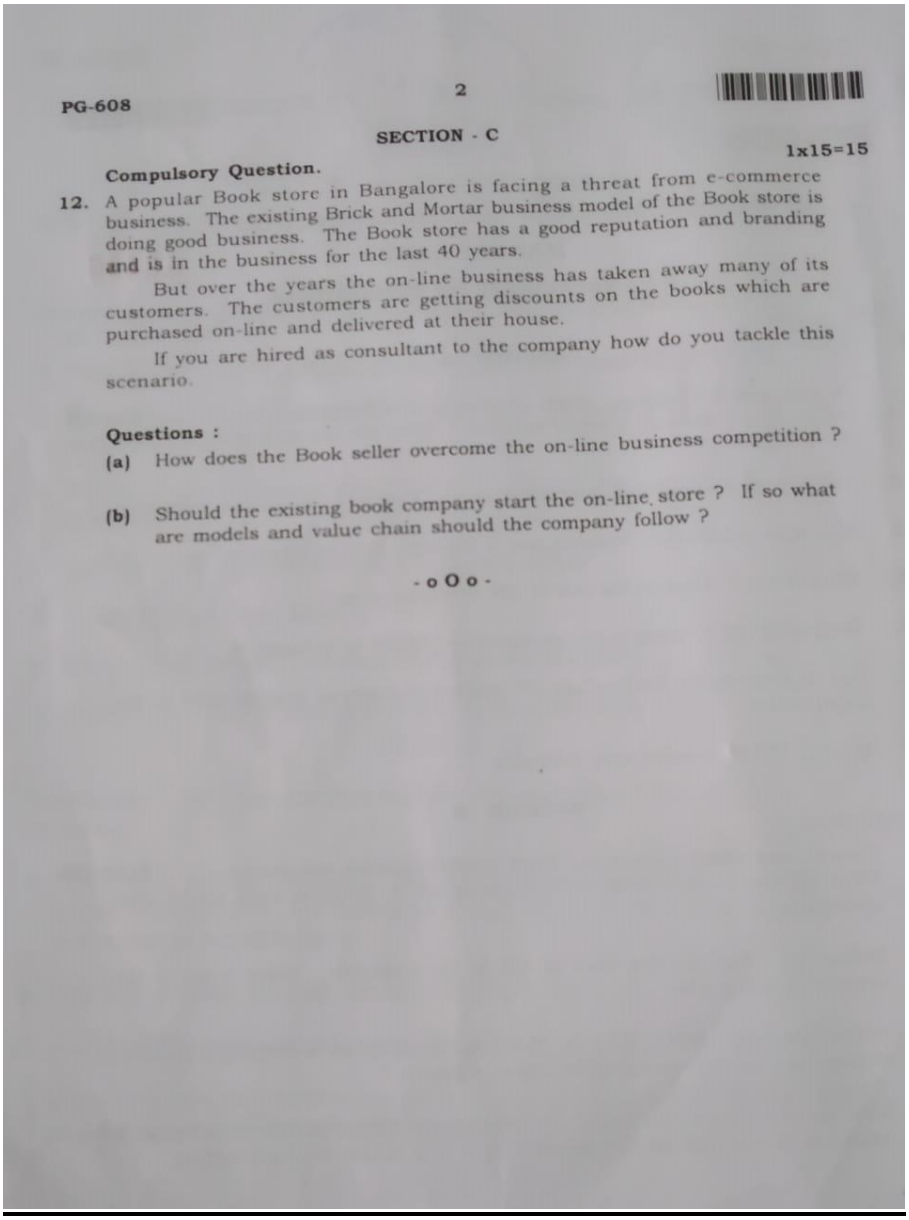
1. What are the different types of software ? What are the various applications of operating system ?
2. Distinguish between data and information. Explain with suitable examples.
3. How does Information Systems play a Strategic Role in Organisation ?
4. What is EIS ? Explain the role of EIS in organisation ?
5. What is DBMS ? What is the application of DBMS in Industry ?
6. How is Information Technology (IT) applied in material management of the organisation ?
7. What is TPS ? Explain with examples.

SECTION - B

Answer **any three** questions. Each question carries **ten** marks. **3x10=3**

8. What are the various models in E-commerce ? Explain each model with examples.
9. Define KM. Explain the uses of KM in the Industry. Name some of the companies using KM.
10. Define the term MIS. Why is MIS looked upon as a strategic need of Management in the changing business scenario ?
11. What are the major challenges for Information System (IS) ? Discuss with respect to social and ethical issues how it is a threat to Organisation.

P.T.



PG-608 2

SECTION - C

1x15=15

Compulsory Question.

12. A popular Book store in Bangalore is facing a threat from e-commerce business. The existing Brick and Mortar business model of the Book store is doing good business. The Book store has a good reputation and branding and is in the business for the last 40 years.

But over the years the on-line business has taken away many of its customers. The customers are getting discounts on the books which are purchased on-line and delivered at their house.

If you are hired as consultant to the company how do you tackle this scenario.

Questions :

(a) How does the Book seller overcome the on-line business competition ?

(b) Should the existing book company start the on-line store ? If so what are models and value chain should the company follow ?

- o O o -

PG – 593
LIBRARY
BANGALORE-560 063

II Semester M.B.A. Degree Examination, July 2018
(CBCS Scheme)
MANAGEMENT
2.1 : Technology for Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions from the following, **each** question carries **5** marks. **(5×5=25)**

1. What is GUI ? List and explain the elements of GUI based operating system.
2. Differentiate between Data and Information. How does it help in decision making ?
3. What is business process Re-engineering ? Explain the steps involved with example.
4. Distinguish between Decoupling and Decomposition.
5. Explain the following TELNET, FTP.
6. Differentiate between Traditional File System and DBMS.
7. Discuss the pros and cons of the internet for e-commerce.

SECTION – B

Answer **any three** questions from the following, **each** question carries **10** marks. **(3×10=30)**

8. "Though technology information may abound it is always desirable to have a systematic approach to acquiring technology information". Offer your critical comments on the statement.
9. Describe software life cycle models with examples.
10. Explain MIS function based on organization.
11. Explain the various criteria to be met and possessed by an ERP system, when proposed for the small and medium enterprises.

PG – 593

SECTION – C

12. **Compulsory** Case Study : **(1×15=15)**

Capital One Financial Corporation did not become the most profitable credit card company in the United States by accident. They diffuse information technology through all their business strategies and business practices. They call it Information Based Strategy, or IBS. IBS uses a test-and-learn philosophy to differentiate products and services to target market groups. New product ideas are tested on target populations to analyze their reactions to the product or service.

Data are gathered to identify and target specific consumer groups with specific marketing campaigns. Data are used also to set prices on products and interest rates on services. Successful marketing campaigns are tested for multiplication in different regions of the country. Costs are lowered and customer service productivity is enhanced by the use of testing and matching customer service or sales representatives with customers whom they are best trained to serve. When a customer calls, their record is plugged into a database to determine what his needs are and the call is then routed to a representative who is most qualified to serve that customer's needs.

Capital One uses a software application called Global Service Logistics (GSL) by Cisco Systems for call routing. This is only one of the applications used to support IBS. The amount of support required for IBS is immense. Capital One has spent hundreds of millions of dollars building and refining systems for IBS and uses the services of over 1000 IT professionals.

Questions :

1) What is the business model of Capital One Financial Corporation ?

2) Discuss the factors leading to the success of Capital One.

3) Suggest how can Capital One fit into aggregator model ?

PG – 868

II Semester M.B.A. Degree Examination, July 2017
(CBCS Scheme)
MANAGEMENT
2.1 : Technology for Management

Time : 3 Hours Max. Marks : 70

Instruction : Answer **all** Sections.

SECTION – A

Answer **any five** of the following questions. **Each** carries **5** marks : (5×5=25)

1. What is the different network topologies used in network ?
2. What are the various steps in constructing in DSS ?
3. What do you mean by TPS ? Give an example.
4. What is business process reengineering ? Explain.
5. What are the various modules available in ERP ?
6. What are the merits and demerits of DBMS systems ?
7. What is IP and how does it work ?

ST. JOHN'S COLLEGE LIBRARY BANGALORE

SECTION – B

Answer **any three** of the following questions. **Each** carries **ten** marks : (3×10=30)

8. What do you mean by an operating system ? Outline the features of different operating systems.
9. Explain the system development methodologies with respect to MIS.
10. Enumerate the artificial intelligence technologies and its importance in business.
11. What are the risks associated with ERP implementation ? Discuss the risk management techniques that can be used during implementation.

P.T.O.

PG – 868

SECTION – C

Compulsory question : **(1x15=15)**

12. Case study :

Emerging as a multinational E commerce company, Amazon has turned out to be leading online retailer offering cloud computing services. Two technologies driving the growth of Amazon has been the integration of customer relationship management and information management to the overall business strategy. Linux has been a core strength behind the technology of Amazon, the IT infrastructure of the organization has been built in such a way that could handle more than millions of operations and also handles queries.

The company has been exposed to threats of storing and securing the credit cards and debit cards information. The company uses the customer relationship management module under enterprise resources management to store personalized information and purchasing trends of its customers which is integrated with the marketing and advertising campaigns of the organization. The sales strategy of Amazon has been very unique that reflects its MIS. The operations of the company have made a transition from a single level sales strategy to that of multi level e commerce strategy.

The initial growth of the organization was favoured by business to consumer models of selling and business to business mode of operations. The recent development in the E commerce population has enhanced the interactions between the consumer and the business thus forcing Amazon to give more priority and customization to its IT to value and respect reviews of the customers as a part of their business operations. The exclusion of the retailers has been the signs of growth in Amazon as it allows the customers to sell and buy the products using Amazon as a platform.

The business model of Amazon reflects the management information systems. Elastic cloud computing has been yet another vibrant web service offered by Amazon. The objective of E2C at Amazon has been to serve the developers who

work with web scale computing. It offers the end users the complete control over computing actions and lets customers to use the computer environment of Amazon. The pros of E2C computing at Amazon are its ability to save more time there by ignoring the needs of booting a new server. Amazon machine image is being created by the end user to utilize E2C services. The most attractive part of E2C is the feature of paying only for the actual use and also helps the developers to customize their applications so that most common failure scenario is being isolated.

The technology used by Amazon comprises web service, middleware, group ware and most importantly networking. These lay the pillars of management information systems. The enterprise systems that are integrated with the internet are the logistics, accounting and the human resources. The technology and the enterprise systems at Amazon are interconnected with vibrant relational data base management systems which are interdependent on one another.

1) What would be the recommendations to sort products and anti-phishing interventions to Amazon as IT manager ?
2) How can the company establish customer relationship management interventions across the business operations ?
3) Advocate solution to resolve the existing gap between the marketing and sales activities of Amazon.

ST. JOHN COLLEGE LIBRARY

PG – 918

II Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.1 : Technology for Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any 5** questions. **Each** question carries **5** marks **each**. (5×5=25)

1. How do you say that Data is an essential ingredient in Information Decision Making and information is important in Strategy Building ?
2. Explain the classification of the Computers in terms of their Hardware, Software.
3. Define SDLC ? Briefly describe the steps involved in the SDLC.
4. What do you mean by DSS ? Briefly explain components of the DSS.
5. Distinguish between data and information using suitable examples.
6. Briefly discuss the functional systems of a business organisation.
7. How does MS Word and powerpoints help in business operations. Explain briefly.

SECTION – B

Answer **any 3** questions, **each** question carries **10** marks **each**. (3×10=30)

8. What is the difference between the ability of a manager to retrieve information instantly on demand using MIS and the capabilities provided by a DSS ?
9. Most businesses should engage in e-commerce on the Internet. Do you agree or disagree with this statement ? Explain your position with suitable examples.
10. What is an Enterprise ? Discuss how ERP helps in better decision-making w.r.t. all the functional units of the Organization ?
11. The Internet is a driving force behind developments in telecommunications, Networks, and other information technologies. Do you agree or disagree ? Why ?

P.T.O.

PG – 918

SECTION – C

Compulsory (15 Marks) : (1×15=15)

12. You are the owner of a hardware store. The store has different kinds of items like paint, nuts, bolts, nails and such.

You have two kinds of customers; Regular customers and floating customers who walk in as they pass. Since it is becoming difficult to handle the store sales as well as to maintain the stock, you have decided to introduce computer based information systems in your store.

Envisage the requirements of the store and match accordingly the different information systems you would introduce by mentioning their applications.

ST. JOHN COLLEGE
PG – 989
LIBRARY
BANGALORE-560 083

II Semester M.B.A. Degree Examination, June/July 2015
(CBCS Scheme)
2.1 : TECHNOLOGY FOR MANAGEMENT

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions. **Each** question carries **five** marks. Answer to **each** question should **not** exceed **250** words. **(5×5=25)**

1. What is meant by cross functional information systems ? Illustrate and explain the following information systems : CRM and SCM.
2. What is meant by the value chain in business ? Explain the usefulness of information systems in the value chain.
3. Can information technology bring organisational changes to business ? Discuss the types of information technology used for bringing about the changes.
4. What is meant by DSS ? How is it useful in business ?
5. What are knowledge management systems ? How are KMS useful in business organisations ?
6. What are DBMS ? Illustrate and explain in detail.
7. Discuss the important models of E-commerce. What are the issues in implementing E-commerce applications ?

SECTION – B

Answer **any three** questions. **Each** question carries **ten** marks. Answer to **each** question should **not** exceed **500** words. **(3×10=30)**

8. Illustrate and explain the different types of information systems. Discuss how these systems are useful in different functions of business.
9. What are the ethical and social challenges of information technology ? Discuss also the security threats from information technology to a business organisation.
10. What is meant by SDLC ? Illustrate and explain its phases in detail. You may use business applications as examples.

P.T.O.

PG – 989

11. a) How does an ERP system support different business applications ?

b) How are information systems useful in services ? You may use examples of different service sectors.

12. Case Study (**Compulsory**) : (1×15=15)

Jumbo company is into FMCG sector and has branches in three states of South India. Their distribution network comprises of authorized branches – Franchises and Re-sellers. They have computerized with a centralized data management system. With competition growing by day, it is the experience of the customers with company's products and services that matters most and that determines the company's future. Gone are the days where one looks constantly for new customers ignoring the existing ones. It is imperative for the companies to keep the existing customers continuously engaged, serve to their satisfaction and generate more business through them and through their referrals.

Based on a survey they were able to get the below statistics that highlights the importance of positive customer experience and retention :

- Price is not the main reason for customer churn; it is actually due to the overall poor quality of customer service.
- A customer is 4 times more likely to defect to a competitor if the problem is service related than price or product related.
- The probability of selling to an existing customer is 60-70%. The probability of selling to a new prospect is 5-20%.
- For every customer complaint there are 26 other unhappy customers who have remained silent.
- A dissatisfied customer will tell between 9-15 people about their experience. Around 13% of dissatisfied customers tell more than 20 people.
- Happy customers who get their issue resolved tell about 4-6 people about their experience.
- It costs 5-6 times more to acquire a new customer than retain an existing one.

Questions :

a) Suggest how implementing e-CRM can help in understanding the needs and expectations of customers.

b) How can the distribution network yield business benefits through e-CRM ?

T. JOHN COLLEGE LIBRARY BANGALORE

No. of Printed Pages : 2

PG-609

II Semester M.B.A. (Day) (CBCS) Examination, July - 2019

MANAGEMENT

12538

2.2 : Management Research Methods

Time : 3 Hours Max. Marks : 70

SECTION - A

Answer **any five** questions from the following, each question carries **5** marks. **5x5=25**

1. Define business research. Write the criteria of good research.
2. What is hypothesis ? Define type I error and type II error in hypothesis testing.
3. Develop a questionnaire to analyse the customer preference of an automobile. Five questions will suffice.
4. What is univariate and bivariate analysis of data ? Give example.
5. Differentiate between cluster sampling and stratified sampling with examples.
6. Explain the steps in hypothesis testing.
7. Briefly explain the format of Research Report.

SECTION - B

Answer **any three** questions from the following, each question carries **10** marks. **3x10=30**

8. Explain about different types of research.
9. Explain about various scaling methods.
10. What is research design ? How are they classified ? Explain with examples.
11. Explain different types of sampling methods.

PG-609 2

SECTION - C

12. **Compulsory** Case Study : 1x15=15

Gupta Garment Company

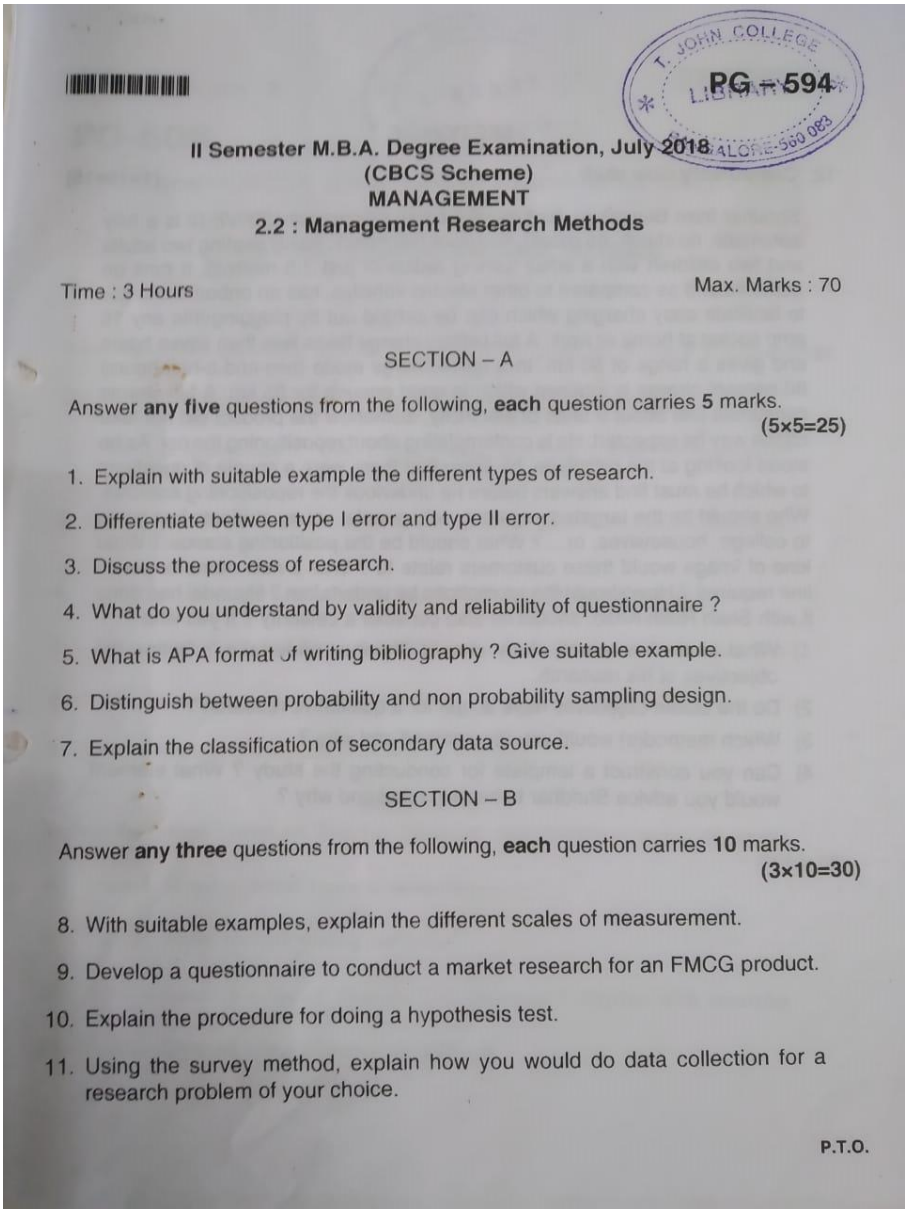
Mr. Mohan Gupta has a chain of restaurants in many cities of northern India and he is interested in diversifying his business. His only daughter, Komal, never wanted to be in the hospitality line. To settle Komal into a line which would interest her, Mr. Mehta decided to venture into garment manufacturing. He gave this idea to his daughter, who liked it very much. Komal has already done a course in fashion designing and wants to do something different for the consumers of this industry. An idea struck her that she should design garments for people who are very bulky but want a lean look after wearing readymade garments. The first thing that came to her mind was to have an estimate of people who wore large sized shirts (40 size and above) and large sized trousers (38 size and above).

A meeting was called of experts from the garment industry and a number of fashion designers to discuss on how they should proceed. A common concern for many of them was to know the size of such a market. Another issue that was bothering them was how to approach the respondents. It was believed that asking people about the size of their shirt or trouser may put them off and there may not be any worthwhile response. A suggestion that came up was that they should employ some observers at entrances of various malls and their job would be to look at people who walked into the malls and see whether the concerned person was wearing a big sized shirt or trouser. This would be a better way of approaching the respondents. This procedure would help them to estimate in a very simple way the proportion of people who wore big sized garments.

Discussion Questions :

(a) Name the sampling design that is being used in the study.
(b) What are the limitations of the design so chosen ?
(c) Can you suggest a better design ?
(d) What method of data collection is being employed ?

- o O o -



ST. JOHN'S COLLEGE LIBRARY BANGALORE-560 083

PG – 594

II Semester M.B.A. Degree Examination, July 2018
(CBCS Scheme)
MANAGEMENT
2.2 : Management Research Methods

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions from the following, **each** question carries **5** marks. **(5×5=25)**

1. Explain with suitable example the different types of research.
2. Differentiate between type I error and type II error.
3. Discuss the process of research.
4. What do you understand by validity and reliability of questionnaire ?
5. What is APA format of writing bibliography ? Give suitable example.
6. Distinguish between probability and non probability sampling design.
7. Explain the classification of secondary data source.

SECTION – B

Answer **any three** questions from the following, **each** question carries **10** marks. **(3×10=30)**

8. With suitable examples, explain the different scales of measurement.
9. Develop a questionnaire to conduct a market research for an FMCG product.
10. Explain the procedure for doing a hypothesis test.
11. Using the survey method, explain how you would do data collection for a research problem of your choice.

P.T.O.

PG – 594

SECTION – C

12. **Compulsory** case study : **(1×15=15)**

Shridhar from Bengaluru, had developed an electric car-VERVE (It is a fully automatic, no clutch, no gears), two-door hatchback, easily seating two adults and two children with a small turning radius of just 3.5 metres). It runs on batteries and as compared to other electric vehicles, has an onboard charger to facilitate easy charging which can be carried out by plugging into any 15 amp socket at home or work. A full battery charge takes less than seven hours and gives a range of 80 km. In a quick-charge mode (two-and-a-half hours) 80 percent charge is attained which is good enough for 65 km. A full charge consumes just about 9 units of electricity. Somehow the product did not take off the way he expected. He is contemplating about repositioning the car. As he stood looking at the prototype, he knew that there were a couple of questions to which he must find answers before he undertook the repositioning exercise. Who should be the targeted segment – old people, young students just going to college, housewives, or....? What should be the positioning stance ? What kind of image would these customers relate to ? Was a new name or punch line required ? How should the promotions be undertaken ? Hyundai had done it with Shah Rukh Khan, should he also consider a celebrity ? If yes who ?

1) What kind of research study should Shridhar undertake ? Define the objectives of his research.
2) Do the stated objectives have scope for a qualitative research ?
3) Which method(s) would you recommend and why ?
4) Can you construct a template for conducting the study ? What element would you advice Shridhar to keep in mind and why ?

PG – 869

II Semester M.B.A. Degree Examination, July 2017
(CBCS Scheme)
MANAGEMENT
2.2 : Managerial Research Methods

Time : 3 Hours Max. Marks : 70

Instruction : *Answer **all** Sections.*

SECTION – A

Answer **any five** of the following questions. **Each** question carries **5** marks : **(5×5=25)**

1. Define business research. What are the major components of good research study ?
2. Distinguish between stratified and cluster sampling.
3. Briefly explain the concept of validity of scale.
4. Discuss Type I and Type II error in hypothesis testing.
5. What is Descriptive analysis ? Illustrate.
6. Distinguish between pure research and applied research.
7. What do you mean by coding of data ? Illustrate a sample code book.

LIBRARY

SECTION – B

Answer **any three** of the following questions. **Each** question carries **10** marks : **(3×10=30)**

8. Define research design. Explain the various phases in research designing.
9. What should be the ideal structure of a research report ? What are the elements of structure defined by you ?

P.T.O.

PG – 869

10. Explain primary scales of measurement (Nominal, Ordinal, Interval, Ratio) with suitable examples and also give details of what statistical technique can be used with data from each type of scale ?

11. Write short notes on :
    1) Inferential analysis.
    2) Cronbach's alpha.

SECTION – C

(Case Study)

Compulsory : 15

12. You are employed by the product manager of Trai Foods Ltd. who wants to know the difference in promotional strategies between the company's frozen vegetables and those marketed by Mother Diary. The customers of the frozen vegetables are mostly working women. Identify your variables, objectives, hypothesis and the research design to be used. Develop a questionnaire to understand the perception of consumers regarding the same.

ST. JOHN COLLEGE
PG – 919
LIBRARY

II Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.2 : Management Research Methods

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions. **Each** question carries **five** marks. **(5×5=25)**

1. How would you distinguish between a management decision problem and management research problem ? Illustrate with examples.
2. What is Cronbach alpha ? Briefly explain its significance.
3. What is univariate and bivariate analysis of data ? Give example.
4. Distinguish between exploratory and descriptive research design.
5. What is sampling frame ? Briefly explain probability sampling techniques.
6. What is APA format of writing Bibliography ? Give suitable example for the same.
7. Indicate the type of measurement scale you would use for each of the following characteristics. Why did you choose the scale you did ?
   a) Brand loyalty.
   b) Colour of a dishwasher.
   c) Age.
   d) Age group.
   e) Intention to purchase a TV.

SECTION – B

Answer **any three** questions. **Each** question carries **ten** marks. **(3×10=30)**

8. Describe in detail the format of Research report. Explain the significance of a research report.
9. Develop a questionnaire to know the customer perception of an airline. Make use of Likert scale, SD scale and staple scale for the same.

P.T.O.

PG – 919 -2-

10. What is Scientific Research ? What are the major components of a good scientific research ? Illustrate with an example.

11. The Malhotra Spice company was in the business of manufacturing and selling spices suitable for the Indian kitchen. The packaging of spices was in tetrapacks and the Chairman, Mr.Malhotra, wanted to know whether it could be changed to plastic or glass bottle packaging. Mr.Malhotra wanted to study the impact of different type of packaging (plastic, glass and tetrapack) on the sales of spices.

The results of ANOVA table is given

Descriptives

Sales (in Rs. Lakhs)

	N	Mean	Std.Deviation	Std.Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Plastic	10	132.00	12.728	4.025	122.89	141.11	110	150
Glass	10	104.40	9.755	3.085	97.42	111.38	90	125
Tetra packs	10	118.30	9.581	3.030	111.45	125.15	105	130
Total	30	118.23	15.490	2.828	112.45	124.01	90	150

ANOVA

Sales (in Rs. Lakhs)

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	3808.867	2	1904.433	16.373	.000
Within Goups	3140.500	27	116.315		
Total	6949.367	29			

You are required to

1) Identify dependent and independent variable.
2) Which type of measurement scale is used for Dependent and Independent variable ?
3) Give hypothesis which is tested for the given table.
4) Draw inference from the table given.

PG – 919

SECTION – C
(Compulsory) (1×15=15)

12. Case study :

The day is not very far when the Indian travellers can criss-cross the globe with just a few clicks. Taking e-commerce and information technology services a step further, the Indian travel industry is composing itself to usher in the era of e-ticketing.

On-line booking involves pursuing of available information on travel websites and then making a reservation. However, if you are not the kind who prefers a particular airline, then you can check out travel sites, which collate flights details of all airlines, and are the apt place to book or bid for air tickets. Travel portals, such as, travelguru.com, arzoo.com, yatra.com, indiatimes.com, rediff.com, makemytrip.com, and cleartrip.com, would provide you all details of flights along with their fares in an ascending order, i.e., the lowest priced, ticket is featured first, on its web page.

The number of consumers who book travel tickets online is growing. But a switch from off-line environment to online environment creates certain doubts in the minds of consumers. Such doubts have been termed as perceived risks in literature.

Also, the internet revolution has brought about significant changes in market transparency, defined as the availability and accessibility of information to market participants. For example, air travellers can use online travel agencies to browse through hundreds of travel offers to their destination, compared to typically few offers from a traditional travel agent or airline prior to the internet era.

Generally, market transparency seems to benefit consumers because they are able to better discern the product that best fits their needs at a better price. However, there still is a large percentage of population who get their tickets booked through the traditional queuing system.

The advent of e-ticket booking over the past couple of years has led to the mushrooming of online travel agencies. These online service providers have in fact come up with a wide variety of services for faster and more convenient mode of ticket booking. They offer a host of services starting from booking something as mundane as a train or flight ticket to something as exotic as a holiday. They offer various packages which have the entire itinerary for the proposed holiday. They even offer a convenient pick-up and drop service.

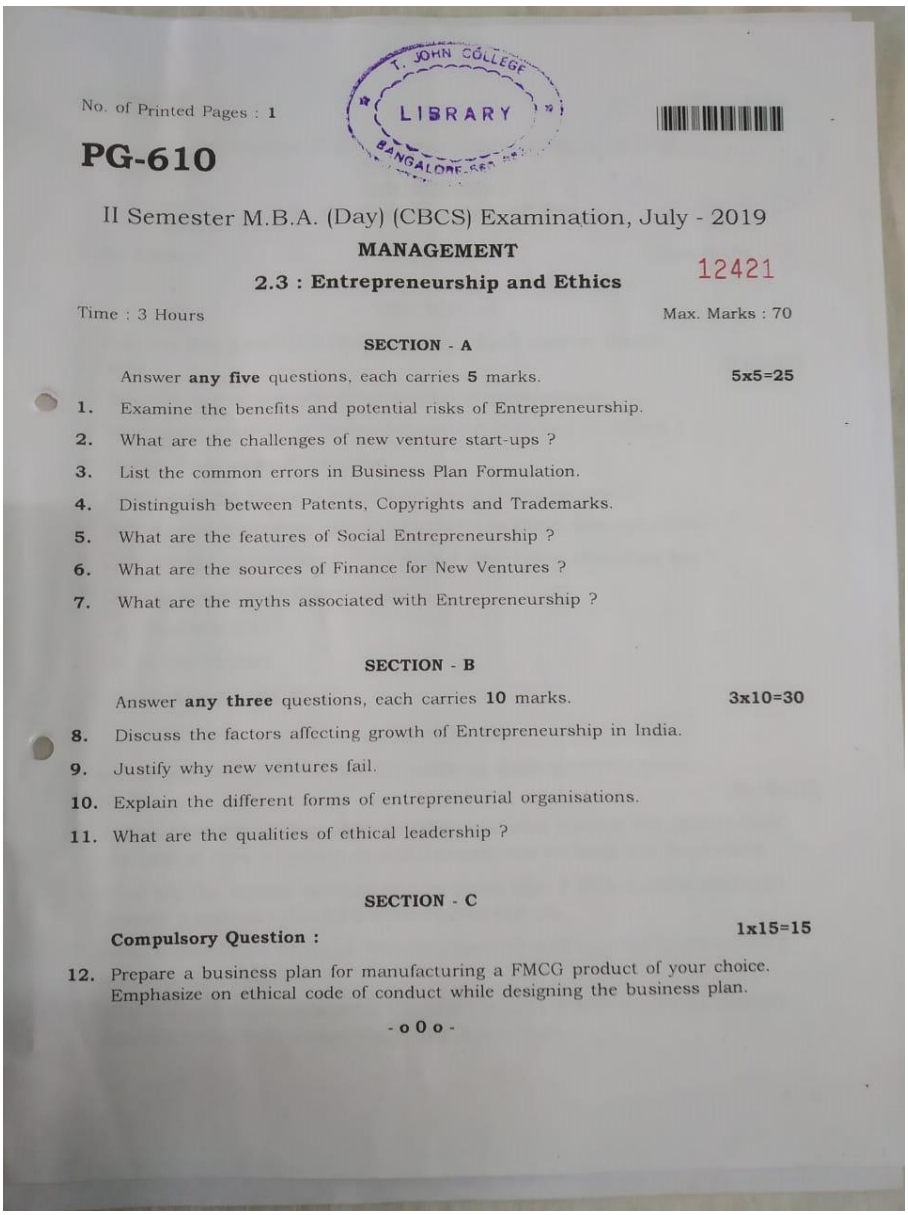
PG – 919

With such a range of services being offered at your fingertips, expectations are that more and more number of travellers would start using such easy, fast and convenient services as compared to the conventional booking process across a reservation counter. Yet, we still observe long queues at the various reservation counters. And, we also know that there are a number of people who use the online services available to book their travel than through traditional travel booking counters.

Srinivandan Rao, CEO of Ghoom.com, a travel portal that has been in existence for the past three years whether he can look at a bigger customer base for his travel booking business or look at an alternative e-business.

Questions :

1) What is the kind of research study that you can undertake for Mr. Rao ?
2) Formulate the research problem and the objectives of your study. Can you suggest an alternative research approach that you can take ?
3) Develop a working hypothesis for your study.



No. of Printed Pages : 1

T. JOHN COLLEGE
LIBRARY
BANGALORE-560

PG-610

II Semester M.B.A. (Day) (CBCS) Examination, July - 2019

MANAGEMENT

2.3 : Entrepreneurship and Ethics

12421

Time : 3 Hours Max. Marks : 70

SECTION - A

Answer **any five** questions, each carries **5** marks. **5x5=25**

1. Examine the benefits and potential risks of Entrepreneurship.
2. What are the challenges of new venture start-ups ?
3. List the common errors in Business Plan Formulation.
4. Distinguish between Patents, Copyrights and Trademarks.
5. What are the features of Social Entrepreneurship ?
6. What are the sources of Finance for New Ventures ?
7. What are the myths associated with Entrepreneurship ?

SECTION - B

Answer **any three** questions, each carries **10** marks. **3x10=30**

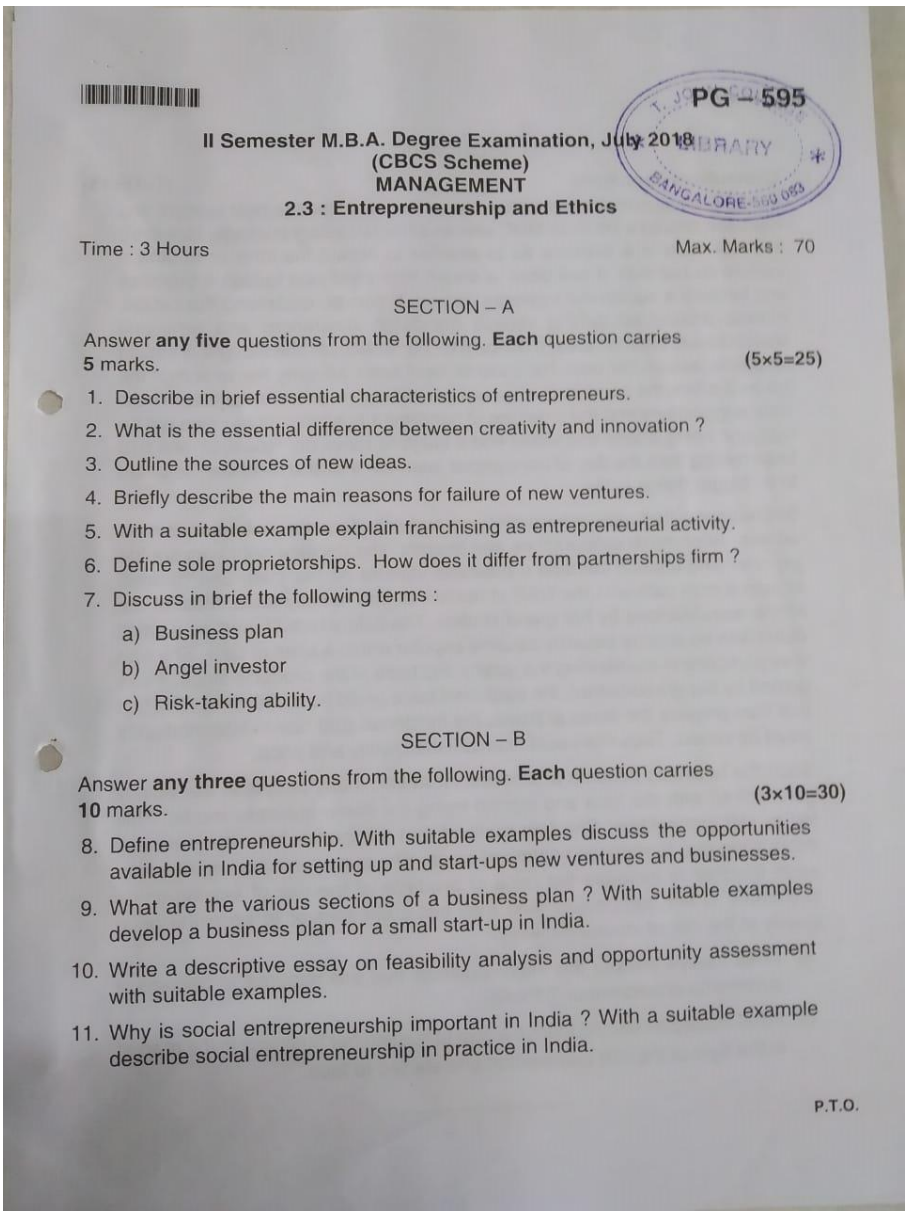
8. Discuss the factors affecting growth of Entrepreneurship in India.
9. Justify why new ventures fail.
10. Explain the different forms of entrepreneurial organisations.
11. What are the qualities of ethical leadership ?

SECTION - C

Compulsory Question : **1x15=15**

12. Prepare a business plan for manufacturing a FMCG product of your choice. Emphasize on ethical code of conduct while designing the business plan.

- o 0 o -



PG – 595

II Semester M.B.A. Degree Examination, July 2018
(CBCS Scheme)
MANAGEMENT
2.3 : Entrepreneurship and Ethics

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions from the following. **Each** question carries **5** marks. (5×5=25)

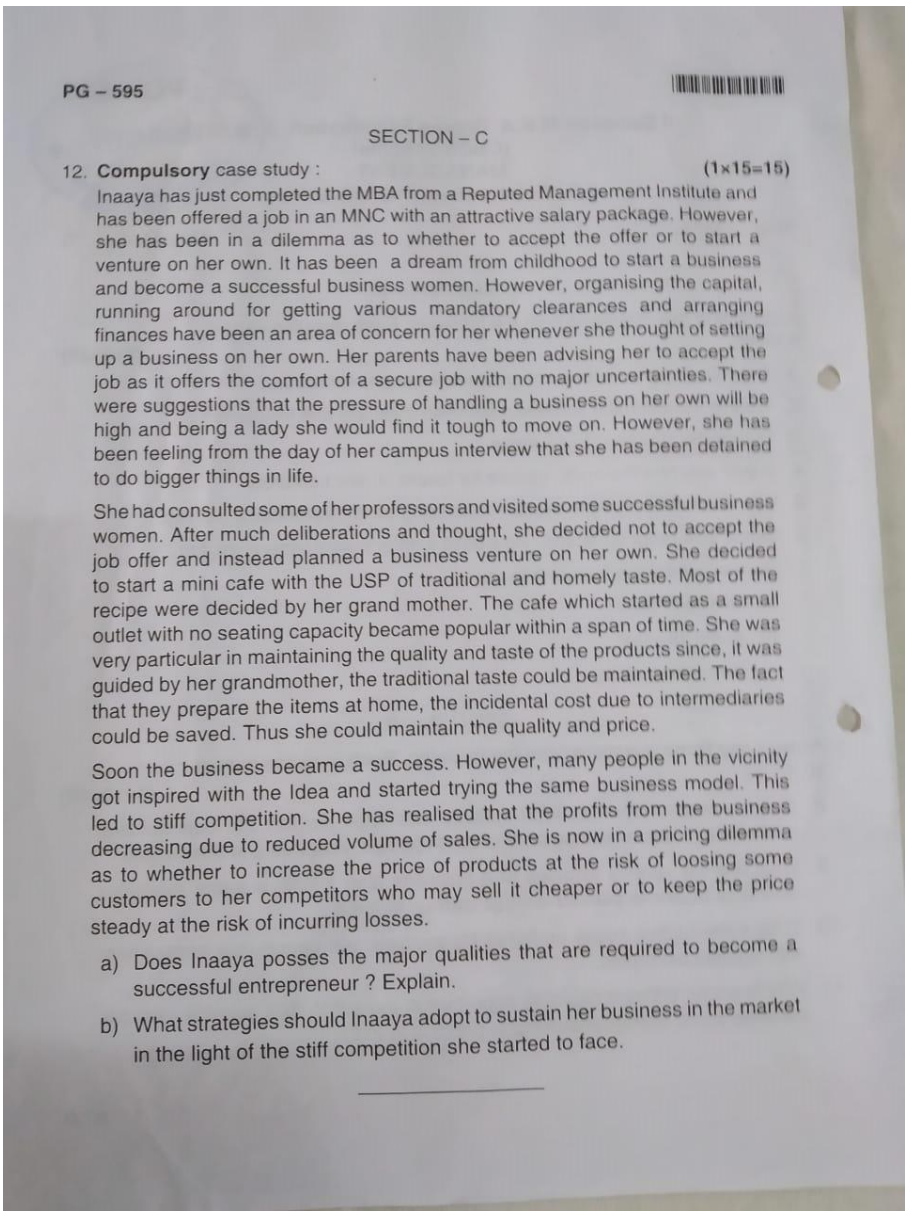
1. Describe in brief essential characteristics of entrepreneurs.
2. What is the essential difference between creativity and innovation ?
3. Outline the sources of new ideas.
4. Briefly describe the main reasons for failure of new ventures.
5. With a suitable example explain franchising as entrepreneurial activity.
6. Define sole proprietorships. How does it differ from partnerships firm ?
7. Discuss in brief the following terms :
   a) Business plan
   b) Angel investor
   c) Risk-taking ability.

SECTION – B

Answer **any three** questions from the following. **Each** question carries **10** marks. (3×10=30)

8. Define entrepreneurship. With suitable examples discuss the opportunities available in India for setting up and start-ups new ventures and businesses.
9. What are the various sections of a business plan ? With suitable examples develop a business plan for a small start-up in India.
10. Write a descriptive essay on feasibility analysis and opportunity assessment with suitable examples.
11. Why is social entrepreneurship important in India ? With a suitable example describe social entrepreneurship in practice in India.

P.T.O.



PG – 595

SECTION – C

12. **Compulsory** case study : **(1×15=15)**

Inaaya has just completed the MBA from a Reputed Management Institute and has been offered a job in an MNC with an attractive salary package. However, she has been in a dilemma as to whether to accept the offer or to start a venture on her own. It has been a dream from childhood to start a business and become a successful business women. However, organising the capital, running around for getting various mandatory clearances and arranging finances have been an area of concern for her whenever she thought of setting up a business on her own. Her parents have been advising her to accept the job as it offers the comfort of a secure job with no major uncertainties. There were suggestions that the pressure of handling a business on her own will be high and being a lady she would find it tough to move on. However, she has been feeling from the day of her campus interview that she has been detained to do bigger things in life.

She had consulted some of her professors and visited some successful business women. After much deliberations and thought, she decided not to accept the job offer and instead planned a business venture on her own. She decided to start a mini cafe with the USP of traditional and homely taste. Most of the recipe were decided by her grand mother. The cafe which started as a small outlet with no seating capacity became popular within a span of time. She was very particular in maintaining the quality and taste of the products since, it was guided by her grandmother, the traditional taste could be maintained. The fact that they prepare the items at home, the incidental cost due to intermediaries could be saved. Thus she could maintain the quality and price.

Soon the business became a success. However, many people in the vicinity got inspired with the Idea and started trying the same business model. This led to stiff competition. She has realised that the profits from the business decreasing due to reduced volume of sales. She is now in a pricing dilemma as to whether to increase the price of products at the risk of loosing some customers to her competitors who may sell it cheaper or to keep the price steady at the risk of incurring losses.

a) Does Inaaya posses the major qualities that are required to become a successful entrepreneur ? Explain.

b) What strategies should Inaaya adopt to sustain her business in the market in the light of the stiff competition she started to face.

———————

PG – 870

II Semester M.B.A. Degree Examination, July 2017
(CBCS Scheme)
MANAGEMENT
Paper – 2.3 : Entrepreneurship and Ethics

Time : 3 Hours Max. Marks : 70

Instruction : *Answer* ***all*** *Sections.*

SECTION – A

Answer **any five** of the following questions. **Each** question carries **five** marks. (5×5=25)

1. "Entrepreneurs are not born, but made". Discuss.
2. How do small business estimate their financial requirements ?
3. Explain the social responsibilities of entrepreneurs.
4. What is franchising ? Explain the advantages of franchising.
5. Why do some business plans fail ? Explain.
6. Discuss the critical factors for new venture development.
7. What is code of conduct and how useful is it in promoting ethical behaviour ?

ST. JOHN'S COLLEGE LIBRARY

SECTION – B

Answer **any three** questions. **Each** question carries **ten** marks. (3×10=30)

8. Describe the predominance and contribution of new ventures in the economy.
9. Briefly describe each of the major segments to be covered in a business plan.
10. Identify and discuss the legal forms available for entrepreneurs structuring their ventures.
11. Explain the goals of Business ethics. What are pros and cons of business ethics ?

P.T.O.

PG – 870 -2-

SECTION – C

15

Case study : **Compulsory.**

12. **Jane's Evaluation :**

Paul Medwick is a commercial banker. In the past month he has received loan applications from three entrepreneurs. All three have fledgling businesses with strong potential. However, Paul believes it is important to look at more than just the business itself; the individual also needs close scrutiny.

The three entrepreneurs are (1) Robin Wood, owner of a small delicatessen located in the heart of a thriving business district ; 2) Richard Trumpe, owner of a ten-minute oil-change-and-lube operation ; and 3) Phil Hartack, owner of a bookstore that specializes in best sellers and cookbooks. Paul has had the bank's outside consultant, Professor Jane Jackson, interview each of the three entrepreneurs. Jane has done a lot of work with entrepreneurs and after a couple of hours of discussion is usually able to evaluate a person's entrepreneurial qualities. In the past Jane has recommended 87 people for loans and only two of these ventures have failed. This success rate is much higher than that for commercial loans in general. Here is Jane's evaluation of the three people whom she interviewed.

CHARACTERISTIC	ROBIN WOOD	RICHARD TRUMPE	PHIL HARTACK
Perseverance	H	M	M
Drive to achieve	M	H	M
Initiative	M	H	M
Persistent problem solving	M	M	H
Tolerance for ambiguity	L	M	H
Integrity and reliability	H	M	H
Tolerance for failure	H	H	H

Creativity and innovativeness	M	H	M
Self-confidence	H	H	H
Independence	H	H	H

H = High

M = Medium

L = Low.

Questions :

1) Which of the three applicants do you think comes closest to having the mind-set of an ideal entrepreneur ? Why ?

2) To which applicant would you recommend that the bank lend money ? (Assume each has asked for a loan of $ 50,000). Defend your answer.

3) Can these three entrepreneurs do anything to improve their entrepreneurial profile and their chances for success ? Be specific in your answer.

ST. JOHN COLLEGE LIBRARY BANGALORE-560 029

PG – 991

II Semester M.B.A. Degree Examination, June/July 2015
(CBCS Scheme)
MANAGEMENT
Paper – 2.3 : Entrepreneurship and Ethics

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following questions. **Each** question carries **five** marks. Answer to **each** question should **not** exceed **250** words. (5×5=25)

1. What are the economic and social significance of Entrepreneurs ?
2. Explain the factors which cause poor growth of Entrepreneurship.
3. Identify an Entrepreneurial opportunity of your choice and explain its strength and weaknesses.
4. Explain, why, start-ups management is more important for Entrepreneurial success.
5. What are the components of a Business plan ? Explain.
6. Explain the suitability of Franchising and Private Limited Companies as legal structure of an Enterprise.
7. Explain the point of difference between social Entrepreneur and other Entrepreneurs.

SECTION – B

Answer **any three** of the following questions. **Each** question carries **10** marks. Answer to **each** question should **not** exceed **500** words. (3×10=30)

8. Discuss the various factors which cause emergence of Entrepreneurs.
9. Discuss the relevance of social Entrepreneurship for a country like India.
10. Discuss the need and importance of Business Ethics. Also explain the role of a ethical leader in Entrepreneurial success.
11. For a hypothetical business idea, develop a detailed business plan.

P.T.O.

PG – 991

SECTION – C
(Compulsory)

12. Read the case and answer the questions given below : 15

Reeta Singh, 45 years old in January 2000, the founder of Mesco Company with an annual turnover of Rs. 1,500 crore had to put hard labour to reach to the pinnacle of her success. When she was just 7 years old, her father retired from the post of lecturer. She got married with an Air Force Officer at the age of 19 years. When she felt boredom after marriage, she planned to start a milk dairy. She started it with three buffaloes at Hindon near Ghaziabad. She started earning profits from selling milk and thought to expand her dairy business. However, it was not accepted to the luck. Her husband was, meanwhile, transferred to Sarwana. Like most of the Indian wives, she joined her husband at Sarwana but certainly with her innate enterprising attitude.

That place and situations do not deter one from marching ahead in accomplishing one's mission was certified by Reeta Singh by installing a Sugar Plant at Sarwana. She was so strong in her mission that she dared to do her own even the risky jobs like driving tractors packed with sugarcane. There came yet another trial for her. Her husband had to retire 20 years before his super annuation age as he fell prey to paralysis. Now, there was no other option for Reeta Singh but struggle and struggle. This struggle period sparked an altogether new business idea in her head. Reeta Singh started thinking of venturing into the export business that was least known to her. But she was firm on it and her ardent effort brought an order for the tune of 5,000 tons of Tepeo (a kind of cattle fodder) to supply to Germany and America. Reeta Singh somehow complied with the order without any sufficient capital at her disposal and toured Germany all alone. Though she did not earn any profit out of her business tour to Germany, she could well understand the complex procedure involved in export business. This came as a turning point in her life. Then, there was no looking back for Reeta Singh.

The Hindi word 'Singh' means lion. The name 'Reeta Singh' symbolises 'lion'. She was so strong in strengths and serious in efforts as lion is. Today, the outcomes of Reeta Singh's tireless hard labour to achieve greater and greater things in life are the Mesco Pharmaceuticals, Steel plant, Leather Goods, Shoe Company, and Mesco Airlines. There is no denying of the fact that to erect such

a gigantic business empire and to reach to her self-actualisation stage, Reeta Singh underwent through every trial of struggles she was put in. That is why her success founded on series of struggles has made Reeta Singh inclined to simple life and ordinary things. She does not like much to join the status symbol parties till late night. What she likes is to look after her business empire by travelling abroad in her own two Helicopters. She likes to pass her holidays in her holiday home in Mauritius. In fact, her likings are bundles of contradictions. While she likes to be adorned with diamond and pearl, she loves to remember her days of struggle by looking at people travelling on rickshaws and in jampacked DTC and blue line buses while travelling in her costliest Rolls Royes on the heavily crowded roads in the national capital city of Delhi. This is not the end of her likings. Last time, she also contested from the Ghaziabad parliamentary constituency which she lost. She wants to live life with fulfilment for which she is always ready to take any risk.

Reeta Singh believes : "Risk needs to be taken in life because it is impossible to climb the stairs of success without taking risks".

Questions:

1) In your opinion, which theory of motivation does apply to Reeta Singh ?
2) Discuss the major entrepreneurial competencies that you find in this case.
3) Develop a SWOT matrix for the above business Entities.

ST. JOHN'S COLLEGE LIBRARY BANGALORE-560 034

PG – 920

II Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.3 : Entrepreneurship and Ethics

Time : 3 Hours Max. Marks : 70

SECTION – A (5×5=25)

Answer **any five** of the following questions. **Each** question carries **five** marks.

1. Briefly explain the types of entrepreneurs.
2. What are the challenges of new venture start-ups ?
3. Discuss the steps involved in subjecting a business idea to a feasibility analysis.
4. What factors should an entrepreneur consider before choosing a form of ownership ?
5. Write a brief note on 'Social Entrepreneurship'.
6. What is code of conduct and how useful is it in promoting ethical behaviour ?
7. How can entrepreneurs develop a position of ethical leadership in business today ?

SECTION – B (3×10=30)

Answer **any three** questions. **Each** question carries **ten** marks.

8. Discuss the importance and characteristics of entrepreneurs.
9. Explain the sources of finance for new venture.
10. Discuss the arguments for and against business ethics.
11. Describe the elements of a solid Business plan.

P.T.O.

PG – 920

SECTION – C

15

12. Case study : **Compulsory** :

A Question of Incorporation :

The Harlow family opened its first motel in 1982. Initially, business was slow. It took almost 11 months to break even and three years for the Harlows to feel that the operation was going to be a success. They stuck with it and by 1987 they were able to increase the size of the motel from 28 to 50 rooms. They expanded again in 1989, this time to 100 rooms. In each case, the motel's occupancy rate was so high that the Harlows had to turn people away during the months of April to September and the occupancy rate was 85 percent during the other months. By industry standards, their business was one of the most successful motels in the country.

As they entered the 1990s, Harold and Becky Harlow decided that, rather than expanding, they would be better off buying another motel, perhaps in a nearby locale. They chose to hire someone to run their current operation and spend most of their time at the new location until they had it running properly. In 1992, they made their purchase. Like their first motel, the second location was an overwhelming success within a few years. From then on, the Harlows bought a number of new motels. By 1999, they had seven motels with an average of 100 rooms per unit.

During all of this time, Becky and Harold kept their own financial records, bringing in a certified public accountant only once a year to close the books and prepare their income tax returns. Last week the new accountant asked them how long they intended to keep running seven motels. The Harlows told him that they enjoyed the operation and hoped to keep at it for another ten years, when they planned to sell out and retire.

Harold admitted that trying to keep all of the motels going at the same time was difficult but noted that he had some excellent managers working for him. The accountant asked him whether he would consider incorporating. "If you incorporate," he said, "You could sell stock and use the money to buy more motels. Additionally, you could keep some of the stock for yourself so you could maintain control of the operation, sell some for expansion purposes and sell the

No. of Printed Pages : 2

LIBRARY
BANGALORE-56

PG-611

II Semester MBA (CBCS) Examination, July - 2019

MANAGEMENT

Paper - 2.4 : Human Capital Management 12384

Time : 3 Hours Max. Marks : 70

SECTION - A

Answer **any five** questions, each carries **5** marks : **5x5=25**

1. Distinguish between HRM and HRD.
2. What is HRP ? Explain determinants of HRP.
3. "Promotion and demotion are two faces of single coin". Comment on the statement.
4. What are internal and external sources of recruitment ? Explain.
5. Distinguish between training and development.
6. What are the contemporary HRD practices ? Explain.
7. What is 360° performance appraisal ? Explain.

SECTION - B

Answer **any three** questions, each carries **10** marks : **3x10=30**

8. What are components of employee compensation ? Explain.
9. What do you mean by Industrial relations ? Explain how industrial relations affects industrial growth.
10. What do you understand by SHRM ? Explain its characteristics.
11. "The success of any organisation is depending up on the selection of right person for right job". Comment on the statement.

P.T.O.

SECTION - C

(Compulsory)

12. Read the case given below and answer the questions given at the end. **1x15=1**

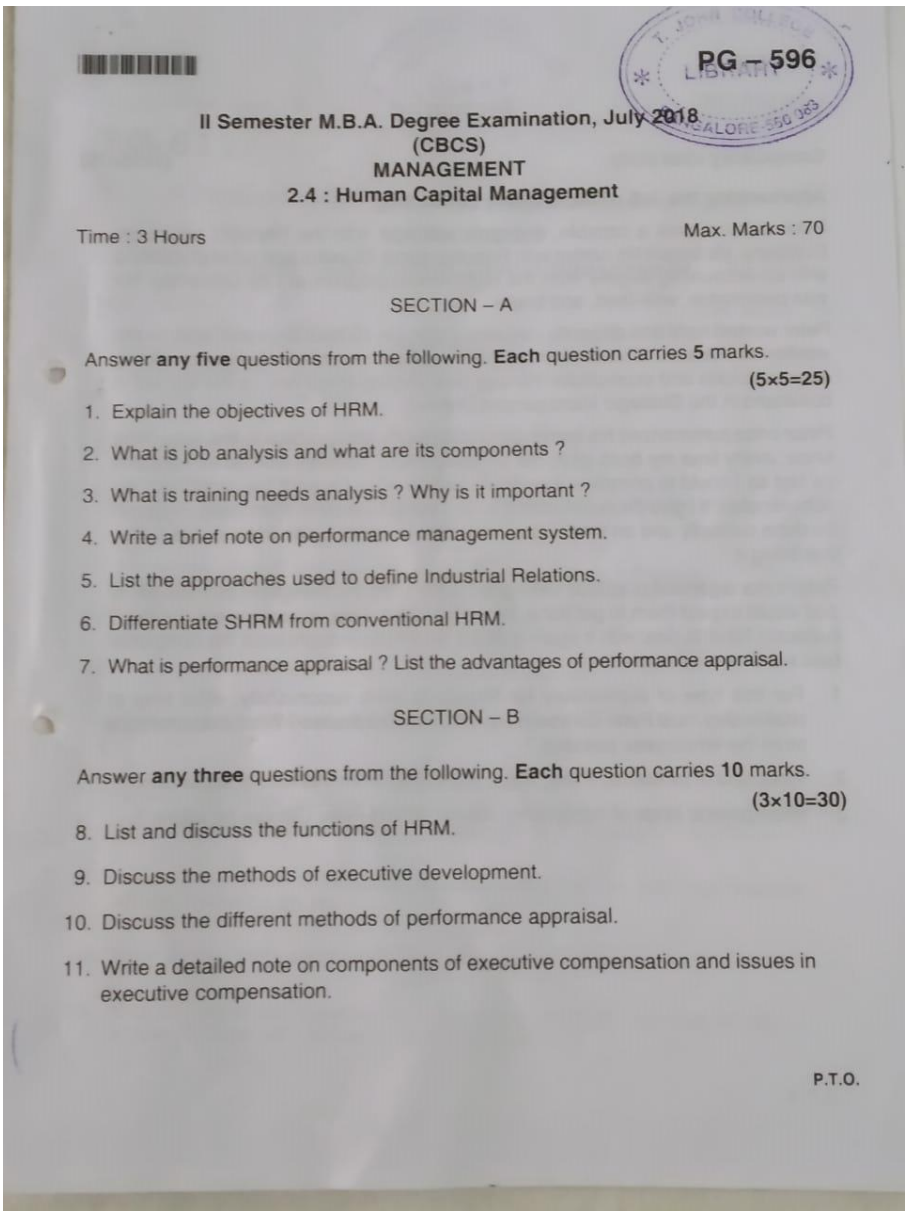
Case Study

One Monday morning Sanjay Nagpal a recent recruit from a reputed Management institute in Chennai walked into the sales office at Manipal as a new sales trainee. Raghavan the Zonal sales manager for a large computer hardware firm was there to greet him. Raghavan's job consisted of overseeing the work of sales officers. Field executives and trainee salesman numbering over 50 of three areas namely Manipal, Bangalore, Trivandrum. The sales growth of computers, parts and other office equipments in his area was highly satisfactory, especially in recent years thanks to the developmental initiatives taken by the respective state government in spreading computer education in offices, schools, colleges, Banks and other institutions. Raghavan had collected all the sales reports, catalogues and pamphlets describing in details the types of the office equipment sold by the company. After a pleasant chat about their backgrounds. Raghavan gave Sanjay the collected material and showed him to his assigned desk. Thereafter Raghavan excused himself and did not return. Sanjay spent the whole day scanning the material and at 5.00 p.m. he picked up his things and went home.

Questions :

1. What do you think about Raghavan's approach for training programme ?
2. How training helps improvises the skills, gaining knowledge and increase adaptability ?
3. According to your knowledge which training methods will give more benefits to the new employees ?

- o O o -



PG – 596

II Semester M.B.A. Degree Examination, July 2018
(CBCS)
MANAGEMENT
2.4 : Human Capital Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions from the following. **Each** question carries **5** marks. **(5×5=25)**

1. Explain the objectives of HRM.
2. What is job analysis and what are its components ?
3. What is training needs analysis ? Why is it important ?
4. Write a brief note on performance management system.
5. List the approaches used to define Industrial Relations.
6. Differentiate SHRM from conventional HRM.
7. What is performance appraisal ? List the advantages of performance appraisal.

SECTION – B

Answer **any three** questions from the following. **Each** question carries **10** marks. **(3×10=30)**

8. List and discuss the functions of HRM.
9. Discuss the methods of executive development.
10. Discuss the different methods of performance appraisal.
11. Write a detailed note on components of executive compensation and issues in executive compensation.

P.T.O.

PG – 596

SECTION – C

Compulsory case study. **(1×15=15)**

Approaching the Job of Supervisory Leadership.

Peter Gilmore was a capable, energetic manager with the Republic Insurance Company. He began his career with Republic some 15 years ago, after graduating with an accounting degree from the night-school program at City University. He was personable, well-liked, and bright.

Peter worked hard and diligently, regularly putting in 10-hour days and work on the weekends. Because of his dedication, Peter had been rewarded with ever-increasing responsibilities and promotions. He was now serving effectively as the second in command in the Strategic Management Division.

Peter once summarized his supervisory philosophy and practice in this way: "You know, every time my boss gave me an assignment, I always worked as hard and as fast as I could to complete it perfectly and on time. I expect the same from my subordinates: If I give them something to do, I expect the same from them – it should be done correctly and on time. I can't take time to check up on them or see if they are doing it."

Peter's management practices were good to his word: He delegated projects easily and would expect them to get done. When he handed out an assignment, he didn't expect to have to deal with it again until the employee brought back the completed task within a reasonable time.

1. For this type of supervisory leadership to work successfully, what kind of relationship must Peter Gilmore have with his subordinates ? What characteristics must the employees possess ?
2. What kind of problems, if any, might you expect from this kind of supervision ?
3. What general kinds of supervisory actions should Peter Gilmore be taking ?

PG – 871

II Semester M.B.A. Degree Examination, July 2017
(CBCS Scheme)
Management
2.4 : HUMAN CAPITAL MANAGEMENT

Time : 3 Hours Max. Marks : 70

Instruction : *Answer* ***all*** *Sections.*

SECTION – A

Answer **any five** of the following questions. **Each** question carries **5** marks. **(5×5=25)**

1. Explain the significance of Human resource management in an organisation.
2. Discuss how job evaluation is differing from job analysis.
3. Bring out the source of recruitment.
4. Explain nature and significance of training.
5. Discuss the 360° performance appraisal.
6. Explain the components of employee compensation.
7. What are the barriers to strategic HRM ? Discuss.

ST. JOHN'S COLLEGE LIBRARY

SECTION – B

Answer **any three** of the following questions. **Each** question carries **10** marks. **(3×10=30)**

8. Define HRP. Explain the HRP process.
9. What is selection ? Discuss the process of selection.
10. Explain the need assessment of training and methods of training with an example.
11. Discuss how performance appraisal is differing from performance management system.

P.T.O.

PG – 871 -2-

SECTION – C

12. **Compulsory** question. (1×15=15)

Case study :

Hindustan Liver Limited is a reputed multinational company. It considers selection as an event in the total process of acquiring and developing managers. The company believes that the selection process must be consistent with other events in the total process for it to be effective. Hindustan lever has been one of the most favored companies by the prospective candidates for managerial position. The selection process of the company can be broken into three steps : such as- Screening of application forms, preliminary interview and final selection.

Screening of Applications Forms :

In the first step the company usually receives a large number of applications for the positions advertised or through campus interview. Thereafter such applications are screened. Such applications usually contain brief information about the candidates. The selected candidates are then required to fill in a detailed application form. This form is quite elaborate and seeks factual information about the candidate and also about his attitudes and personality. A more strict screening of applications is made in this step. The company believes that to select a candidate it will not be enough to see the application forms only which may not be very reliable measure to select or reject the candidate. This calls for a brief preliminary interview to be held by company to get the best talents. So such interviews are conducted to interview as many candidates as is administratively possible.

Preliminary Interview :

Preliminary interview is conducted for about ten to twenty minutes usually by one manager. During this brief personal contract, some time is spent in discussing the nature of the job, the future career possibility of the applicant and the company's policy in this regard. Often a second interview is conducted before the applicant is rejected or selected for further consideration.

Final Selection :

Final selection process is quite elaborate. This stage consists of two aspects- groups discussion and final interview. Group discussion is conducted in two stages. In the first group discussion, the chairman of the panel of selectors requests the group to select a subject which can be economic, political, social educational or even a lighter subject. The subject is decided by the group itself out of the various topics given to it. When the topics is finalized, the members of

the group discuss it. In the second group discussion, a case is given. The case is distributed in advance. The evaluation of the group discussion is done by a board consisting of the personnel director, the director of the division in which the applicants have to be absorbed, a senior manager of the same division and a senior manager of other division. The board evaluates the candidates along the following factors. Style of self introduction by the candidate, his general knowledge and knowledge of his subject, clarity of thought and logic, lucidity of expression, tolerance of others views, persuasiveness and leadership qualities. Each selector is given a blank sheet to evaluate the candidates. He evaluates the candidates individually.

After the group discussion, personal interview is conducted by the board. On the completion of the individual interviews, the board members held discussion among them and then arrive at a consensus.

Question :

1. What type of selection should be adopted by the company ?
2. What is considered in time of screening the application forms ?
3. What is the basic objective of the preliminary interview ? And what should be the size of groups for final selection ?
4. What is the information on the basis of which the personal interview is conducted ?

PG – 921
LIBRARY

II Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.4 : Human Capital Management

Time : 3 Hours Max. Marks : 70

Instruction : Answer all the Sections.

SECTION – A

Answer **any five** of the following questions. **Each** question carries **5** marks. **(5×5=25)**

1. Explain the functions of HRM.
2. Distinguish between Job Analysis and Job Evaluation.
3. Discuss the importance of training in an organization.
4. What is 360° Appraisal ? Discuss.
5. Explain the grievance handling process of Indian Companies.
6. Discuss the scope of strategic HRM.
7. Explain the need and importance of PMS.

SECTION – B

Answer **any three** of the following questions. **Each** question carries **10** marks. **(3×10=30)**

8. Briefly explain the contemporary issues in HRM.
9. What do you mean by HRP ? Explain the factors influencing HRP.
10. Discuss the methods of Management Development Programs.
11. Explain the recent trends in Compensation Management in India.

P.T.O.

PG – 921

SECTION – C

Compulsory Question : (1×15=15)

Case Study :

One Monday morning Sanjay Nagpal, a recent recruit from a reputed management institute in Manipal walked into the sales office at Chennai as a new sales trainee. Raghavan, the Zonal Sales Manager for a large computer hardware firm was there to greet him. Raghavan's job consisted of overseeing the work of sales officers, field executives and trainee salesmen numbering over 50 of three areas namely Chennai, Bangalore, Trivendrum. The sales growth of computers, parts and other office equipment in his area was highly satisfactory, especially in recent years – thanks to the developmental initiatives taken by respective State Governments in spreading computer education in offices, schools, colleges, banks and other institutions.

Raghavan had collected several sales reports, catalogues and pamphlets describing in detail the types of office equipment sold by the company. After a pleasant chat about their backgrounds, Raghavan gave Sanjay the collected material and showed him to his assigned desk.

Thereafter Raghavan excused himself and did not return. Sanjay spent the whole day scanning the material and at 5.00 p.m. he picked up his things and went home.

Questions :

1) What do you think about Raghavan's training programme ?
2) What types of sales training programme would you suggest ?
3) What method of training would have been best under the circumstances ? Would you consider OJT simulation or experiential methods ?

PG - 992 LIBRARY

II Semester M.B.A. Degree Examination, June/July 2015
(CBCS Scheme)
MANAGEMENT
2.4 : Human Capital Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following. **Each** question carries **five** marks. The answer must be written in **not** more than **250** words. **(5×5=25)**

1. Why do we need job analysis and job description in an organization ?
2. Analyse the changing concept of HRM in India.
3. How does career planning contributes to employee satisfaction ?
4. Discuss the role of technology in training of employees in organizations.
5. What are Key Result Areas (KRAs) in performance management system in organizations ?
6. Whether trade unions are relevant today also ?
7. What are the barriers to strategic human resource management ?

SECTION – B

Answer **any three** of the following. **Each** question carries **ten** marks. The answer must be written in **not** more than **500** words. **(3×10=30)**

8. Discuss any five contemporary HR practices in Indian organizations.
9. Explain factors that influence human resource planning.
10. Explain the differences between performance appraisal and performance management system.
11. Analyse the components of employee and executive compensation.

P.T.O.

PG – 992

SECTION – C

12. This is a **compulsory** case study. Read it and answer the questions given at the end. It carries **fifteen** marks. **(1×15=15)**

PRATHAMESH STEEL (PVT) LTD.

Prathamesh Steel (Pvt.) Ltd. founded 15 years before by Mr. A.M. Bapat was having booming time. At that time, Mr. Bapat, worked both in the office and in the factory and knew his men and they knew him. Production standard were always maintained and labour turnover was practically non-existing. As the business mushroomed, the number of employees has progressively increased. Thus, Mr. Bapat's greetings and conversation with his workers became less frequent. In fact, he had so many things to do, that he could no longer supervise the factory. Thus, he hired another man, Mr. Godse as a plant supervisor. At this time, though the number of workers increased to about 500, labour turnover and absenteeism increased along with the labour cases. The only thing that decreased was productivity. In order to meet the situations, Mr. Bapat granted substantial increase in wages which were already high. He also made some arrangements for increment earnings based on merit rating on seniority. Yet labour turnover and absenteeism continued at a high rate.

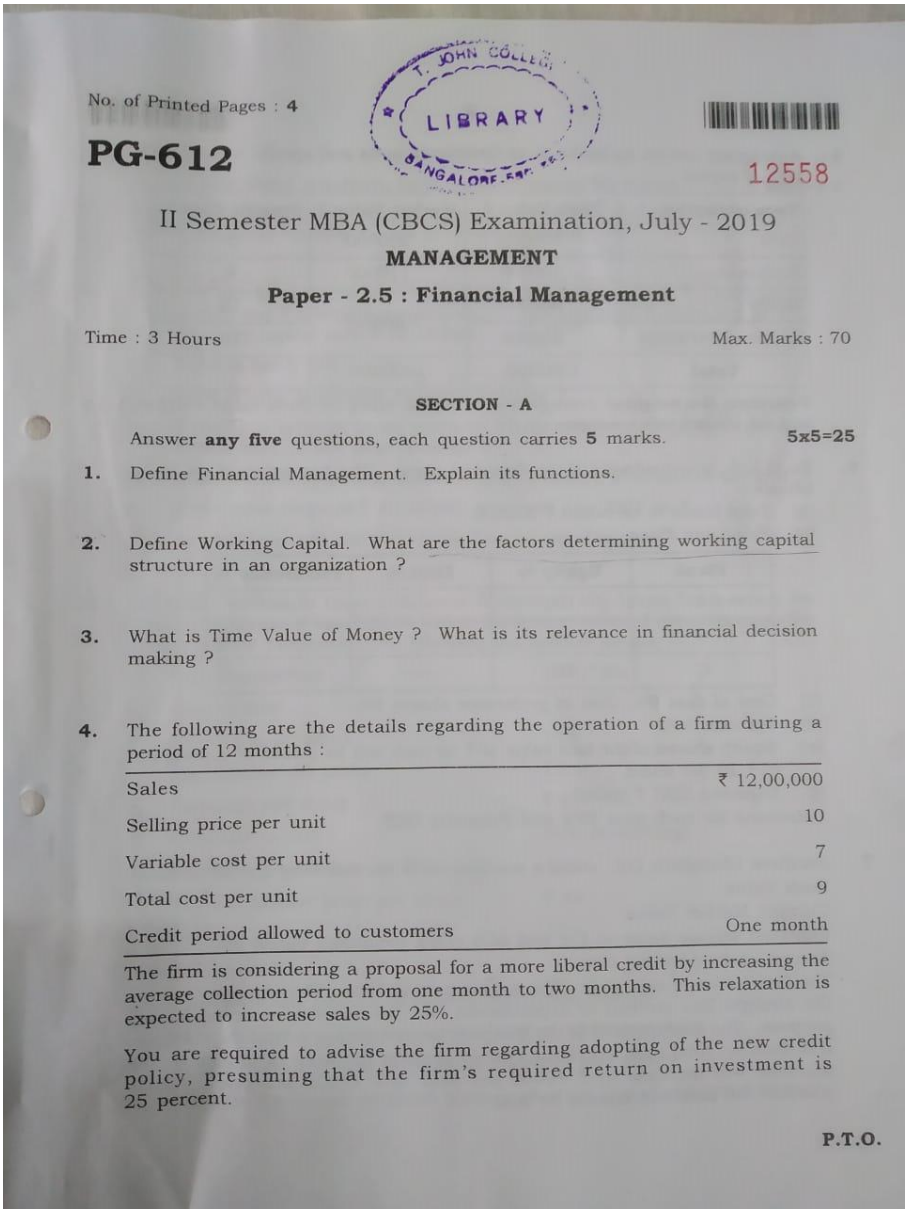
On investigation, it was found that the new plant supervisor lacked the patience and understanding which is necessary for dealing with the employees. When something was found wrong, he was scolding the employees but no attempt was made to find the case of faulty work. Meanwhile, labour unrest developed. The worker began to complain about working on Saturdays and not having either time or facilities change from work clothes to original dresses after work, about toilet facilities etc. Some of the claims were not found sufficiently justified or easy to meet. Mr. Bapat offered to workers as compensation, a new rise in wages with more liberty in allowing vacation time all of which the company could well afford.

Questions :

i) Were the steps taken by Mr. Bapat right under the circumstances ?

ii) What kind of attitude is needed on the part of HR Department towards such challenges ?

iii) What concepts of human capital management are applicable in this case and how ?



No. of Printed Pages : 4

PG-612

T. JOHN COLLEGE LIBRARY BANGALORE

12558

II Semester MBA (CBCS) Examination, July - 2019

MANAGEMENT

Paper - 2.5 : Financial Management

Time : 3 Hours Max. Marks : 70

SECTION - A

Answer **any five** questions, each question carries **5** marks. **5x5=25**

1. Define Financial Management. Explain its functions.

2. Define Working Capital. What are the factors determining working capital structure in an organization ?

3. What is Time Value of Money ? What is its relevance in financial decision making ?

4. The following are the details regarding the operation of a firm during a period of 12 months :

Sales	₹ 12,00,000
Selling price per unit	10
Variable cost per unit	7
Total cost per unit	9
Credit period allowed to customers	One month

The firm is considering a proposal for a more liberal credit by increasing the average collection period from one month to two months. This relaxation is expected to increase sales by 25%.

You are required to advise the firm regarding adopting of the new credit policy, presuming that the firm's required return on investment is 25 percent.

P.T.O.

5. A company has on its books the following amounts and specific cost of each type of capital :

Type of Capital	Book Value ₹	Market Value ₹	Specific Cost %
Debt	400000	380000	5
Preference	100000	110000	8
Equity	600000	1200000	15
Retained earnings	200000		13
Total	1300000	1690000	

Determine the weighted average cost of capital using (a) Book value weights, and (b) Market value weights.

6. Excel Ltd. is considering three financial plans. The key information is as follows :
   (a) Total funds to be raised ₹ 200000
   (b) Financing Plans :

Plans	Equity %	Debt %	Preference %
A	100	-----	-----
B	50	50	-----
C	50	-----	50

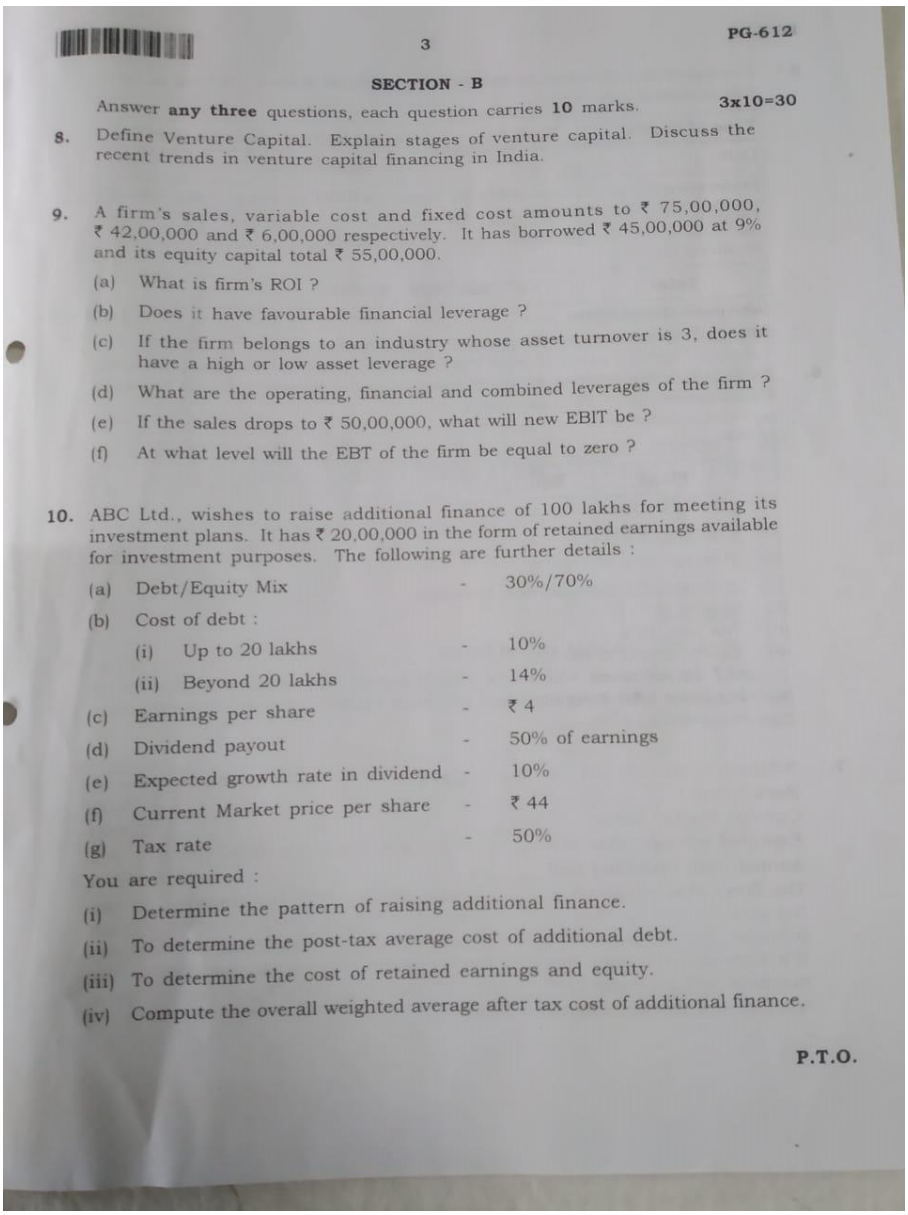
   (c) Cost of debt 8%, Cost of preference shares 8%
   (d) Tax rate 35%
   (e) Equity shares of the face value of ₹ 10 each will be issued at a premium of ₹ 10 per share.
   (f) Expected EBIT ₹ 80000

   Determine for each plan EPS and Financial BEP.

7. Northern Chemicals Ltd., owns a machine with the following characteristics :

Book Value	₹ 110000
Current Market Value	₹ 80000
Expected salvage value at the end of 5 years remaining useful life	NIL
Annual cash operating cost	₹ 36000

The firm's cost of capital is 15%, its tax rate is 35%. The company follows the straight line method of depreciation and the same is accepted for tax purpose. The management of the company is considering selling the machine. If it does so, total cash operating cost to perform the work now done by the machine will increase by ₹ 40000 per year to ₹ 76000 per year. Advise whether the machine should be sold.



SECTION - B

Answer **any three** questions, each question carries **10** marks. **3x10=30**

8. Define Venture Capital. Explain stages of venture capital. Discuss the recent trends in venture capital financing in India.

9. A firm's sales, variable cost and fixed cost amounts to ₹ 75,00,000, ₹ 42,00,000 and ₹ 6,00,000 respectively. It has borrowed ₹ 45,00,000 at 9% and its equity capital total ₹ 55,00,000.

   (a) What is firm's ROI ?

   (b) Does it have favourable financial leverage ?

   (c) If the firm belongs to an industry whose asset turnover is 3, does it have a high or low asset leverage ?

   (d) What are the operating, financial and combined leverages of the firm ?

   (e) If the sales drops to ₹ 50,00,000, what will new EBIT be ?

   (f) At what level will the EBT of the firm be equal to zero ?

10. ABC Ltd., wishes to raise additional finance of 100 lakhs for meeting its investment plans. It has ₹ 20,00,000 in the form of retained earnings available for investment purposes. The following are further details :

(a)	Debt/Equity Mix	-	30%/70%
(b)	Cost of debt :		
	(i) Up to 20 lakhs	-	10%
	(ii) Beyond 20 lakhs	-	14%
(c)	Earnings per share	-	₹ 4
(d)	Dividend payout	-	50% of earnings
(e)	Expected growth rate in dividend	-	10%
(f)	Current Market price per share	-	₹ 44
(g)	Tax rate	-	50%

You are required :

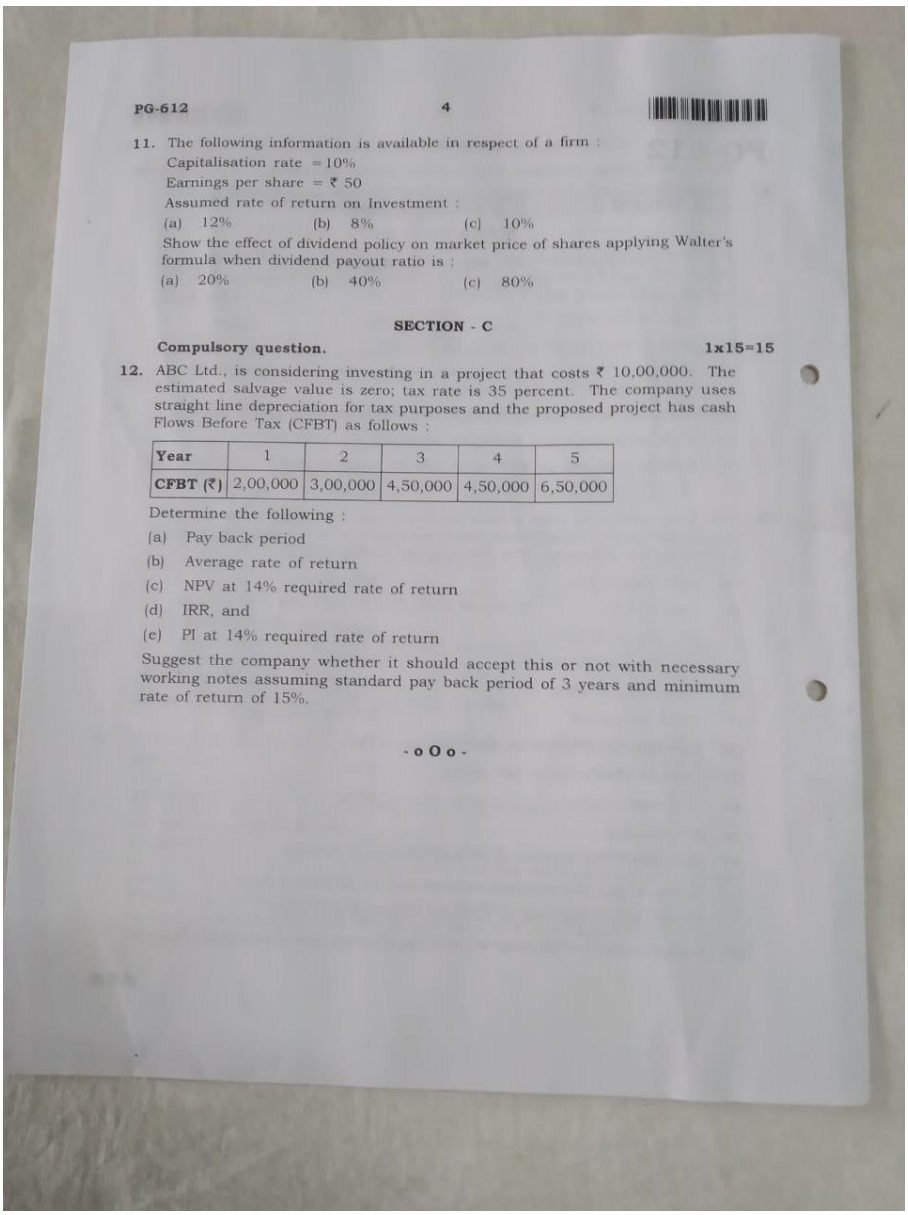
(i) Determine the pattern of raising additional finance.

(ii) To determine the post-tax average cost of additional debt.

(iii) To determine the cost of retained earnings and equity.

(iv) Compute the overall weighted average after tax cost of additional finance.

P.T.O.



PG-612 4

11. The following information is available in respect of a firm :
Capitalisation rate = 10%
Earnings per share = ₹ 50
Assumed rate of return on Investment :
(a) 12% (b) 8% (c) 10%
Show the effect of dividend policy on market price of shares applying Walter's formula when dividend payout ratio is :
(a) 20% (b) 40% (c) 80%

SECTION - C

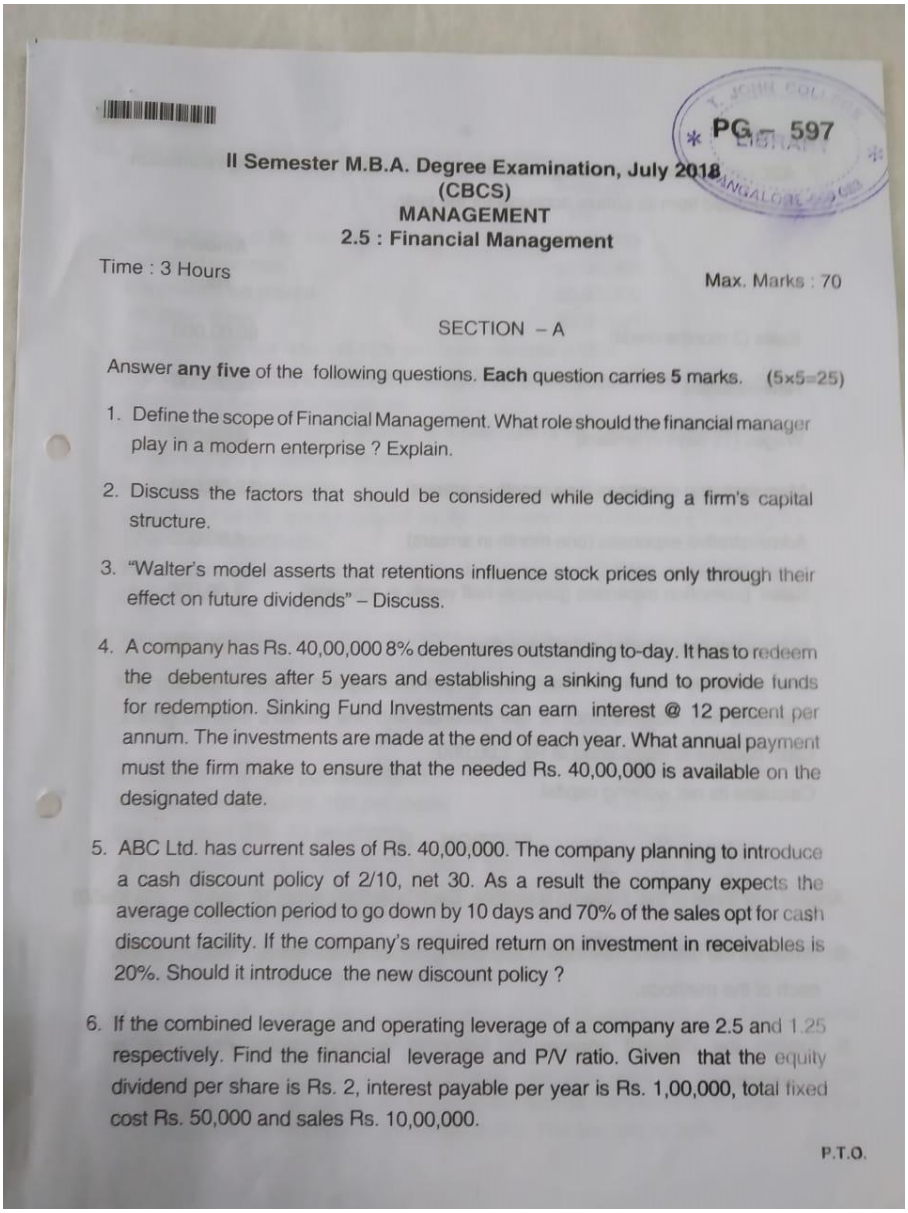
Compulsory question. **1x15=15**

12. ABC Ltd., is considering investing in a project that costs ₹ 10,00,000. The estimated salvage value is zero; tax rate is 35 percent. The company uses straight line depreciation for tax purposes and the proposed project has cash Flows Before Tax (CFBT) as follows :

Year	1	2	3	4	5
CFBT (₹)	2,00,000	3,00,000	4,50,000	4,50,000	6,50,000

Determine the following :
(a) Pay back period
(b) Average rate of return
(c) NPV at 14% required rate of return
(d) IRR, and
(e) PI at 14% required rate of return
Suggest the company whether it should accept this or not with necessary working notes assuming standard pay back period of 3 years and minimum rate of return of 15%.

- o O o -



PG – 597

II Semester M.B.A. Degree Examination, July 2018
(CBCS)
MANAGEMENT
2.5 : Financial Management

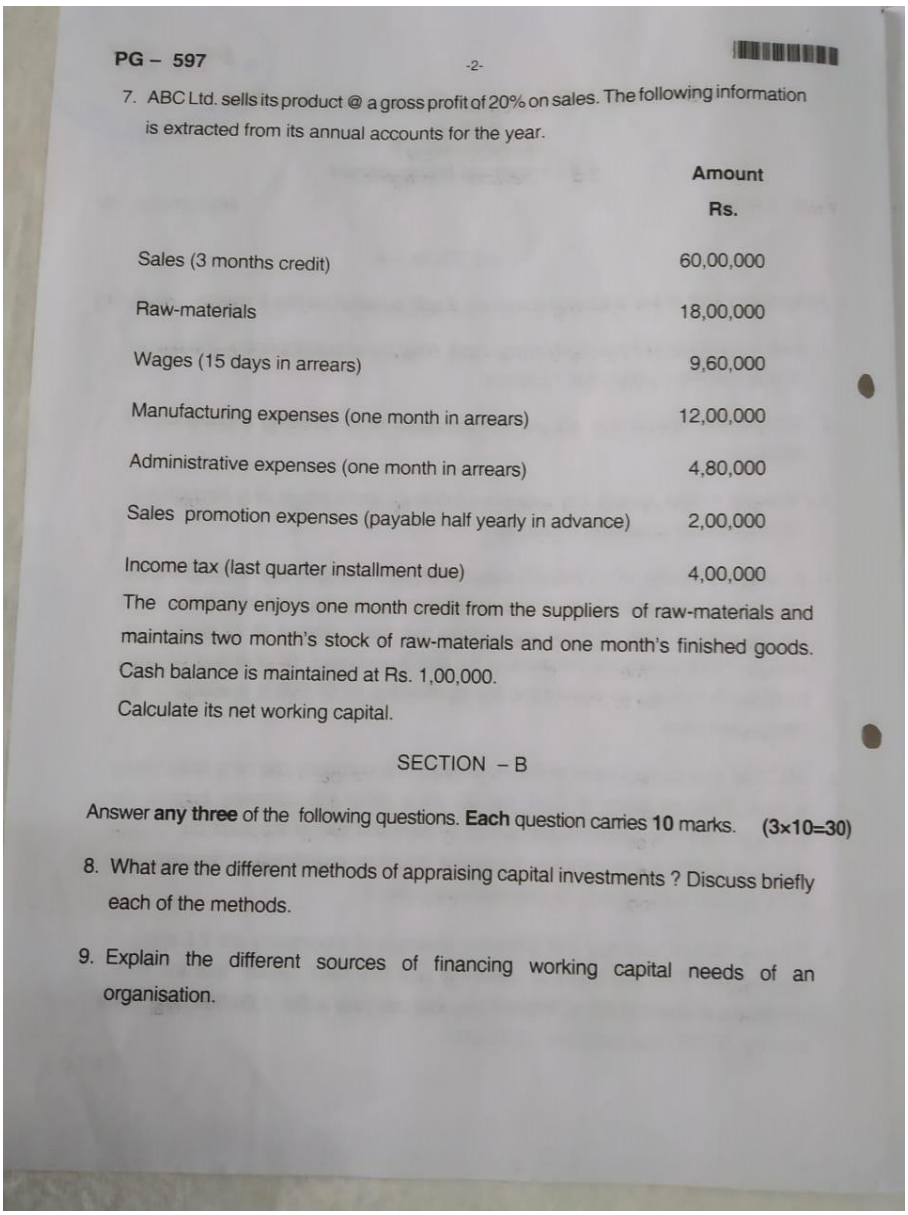
Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following questions. **Each** question carries **5** marks. (5×5=25)

1. Define the scope of Financial Management. What role should the financial manager play in a modern enterprise ? Explain.
2. Discuss the factors that should be considered while deciding a firm's capital structure.
3. "Walter's model asserts that retentions influence stock prices only through their effect on future dividends" – Discuss.
4. A company has Rs. 40,00,000 8% debentures outstanding to-day. It has to redeem the debentures after 5 years and establishing a sinking fund to provide funds for redemption. Sinking Fund Investments can earn interest @ 12 percent per annum. The investments are made at the end of each year. What annual payment must the firm make to ensure that the needed Rs. 40,00,000 is available on the designated date.
5. ABC Ltd. has current sales of Rs. 40,00,000. The company planning to introduce a cash discount policy of 2/10, net 30. As a result the company expects the average collection period to go down by 10 days and 70% of the sales opt for cash discount facility. If the company's required return on investment in receivables is 20%. Should it introduce the new discount policy ?
6. If the combined leverage and operating leverage of a company are 2.5 and 1.25 respectively. Find the financial leverage and P/V ratio. Given that the equity dividend per share is Rs. 2, interest payable per year is Rs. 1,00,000, total fixed cost Rs. 50,000 and sales Rs. 10,00,000.

P.T.O.



PG – 597 -2-

7. ABC Ltd. sells its product @ a gross profit of 20% on sales. The following information is extracted from its annual accounts for the year.

	Amount Rs.
Sales (3 months credit)	60,00,000
Raw-materials	18,00,000
Wages (15 days in arrears)	9,60,000
Manufacturing expenses (one month in arrears)	12,00,000
Administrative expenses (one month in arrears)	4,80,000
Sales promotion expenses (payable half yearly in advance)	2,00,000
Income tax (last quarter installment due)	4,00,000

The company enjoys one month credit from the suppliers of raw-materials and maintains two month's stock of raw-materials and one month's finished goods. Cash balance is maintained at Rs. 1,00,000.

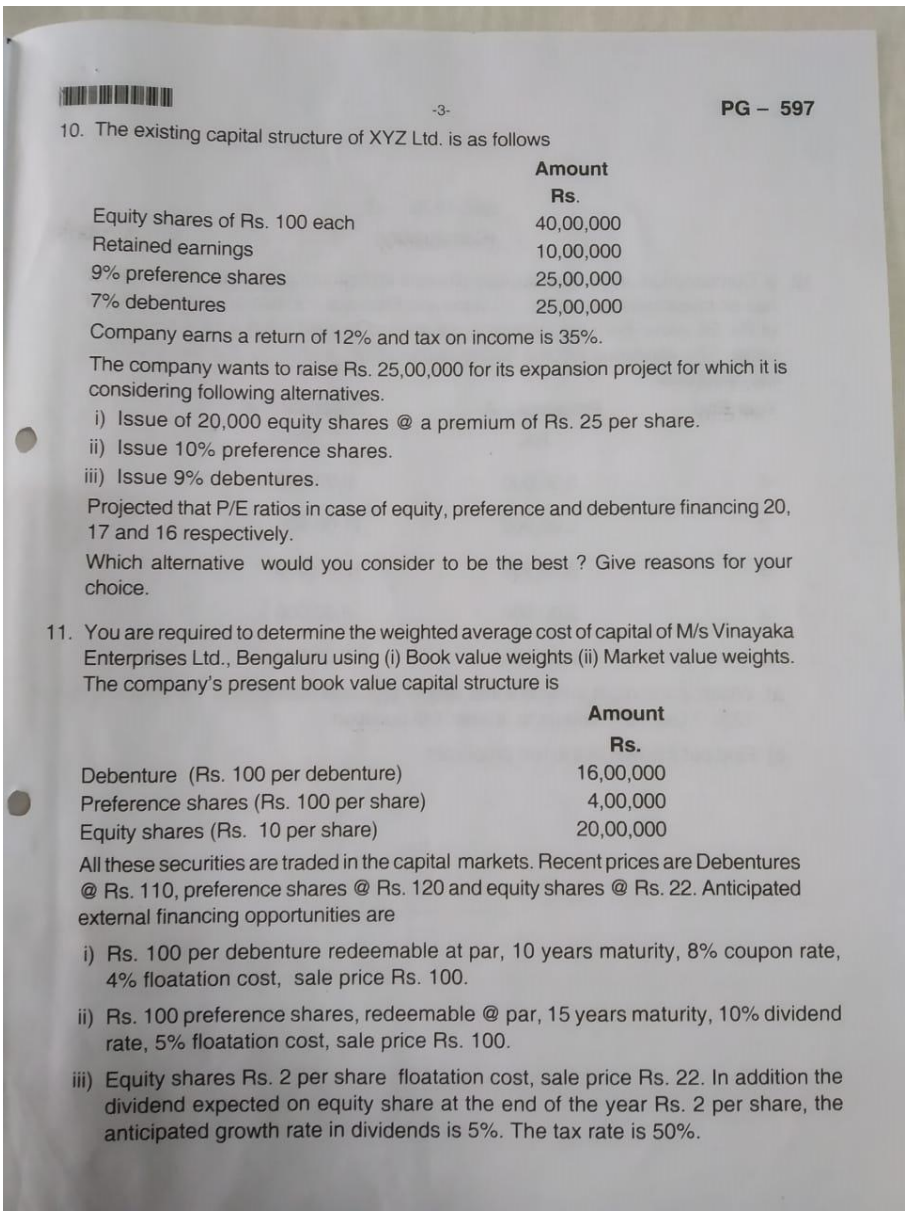
Calculate its net working capital.

SECTION – B

Answer **any three** of the following questions. **Each** question carries **10** marks. **(3×10=30)**

8. What are the different methods of appraising capital investments ? Discuss briefly each of the methods.

9. Explain the different sources of financing working capital needs of an organisation.



-3- PG – 597

10. The existing capital structure of XYZ Ltd. is as follows

	Amount Rs.
Equity shares of Rs. 100 each	40,00,000
Retained earnings	10,00,000
9% preference shares	25,00,000
7% debentures	25,00,000

Company earns a return of 12% and tax on income is 35%.

The company wants to raise Rs. 25,00,000 for its expansion project for which it is considering following alternatives.

i) Issue of 20,000 equity shares @ a premium of Rs. 25 per share.
ii) Issue 10% preference shares.
iii) Issue 9% debentures.

Projected that P/E ratios in case of equity, preference and debenture financing 20, 17 and 16 respectively.

Which alternative would you consider to be the best ? Give reasons for your choice.

11. You are required to determine the weighted average cost of capital of M/s Vinayaka Enterprises Ltd., Bengaluru using (i) Book value weights (ii) Market value weights. The company's present book value capital structure is

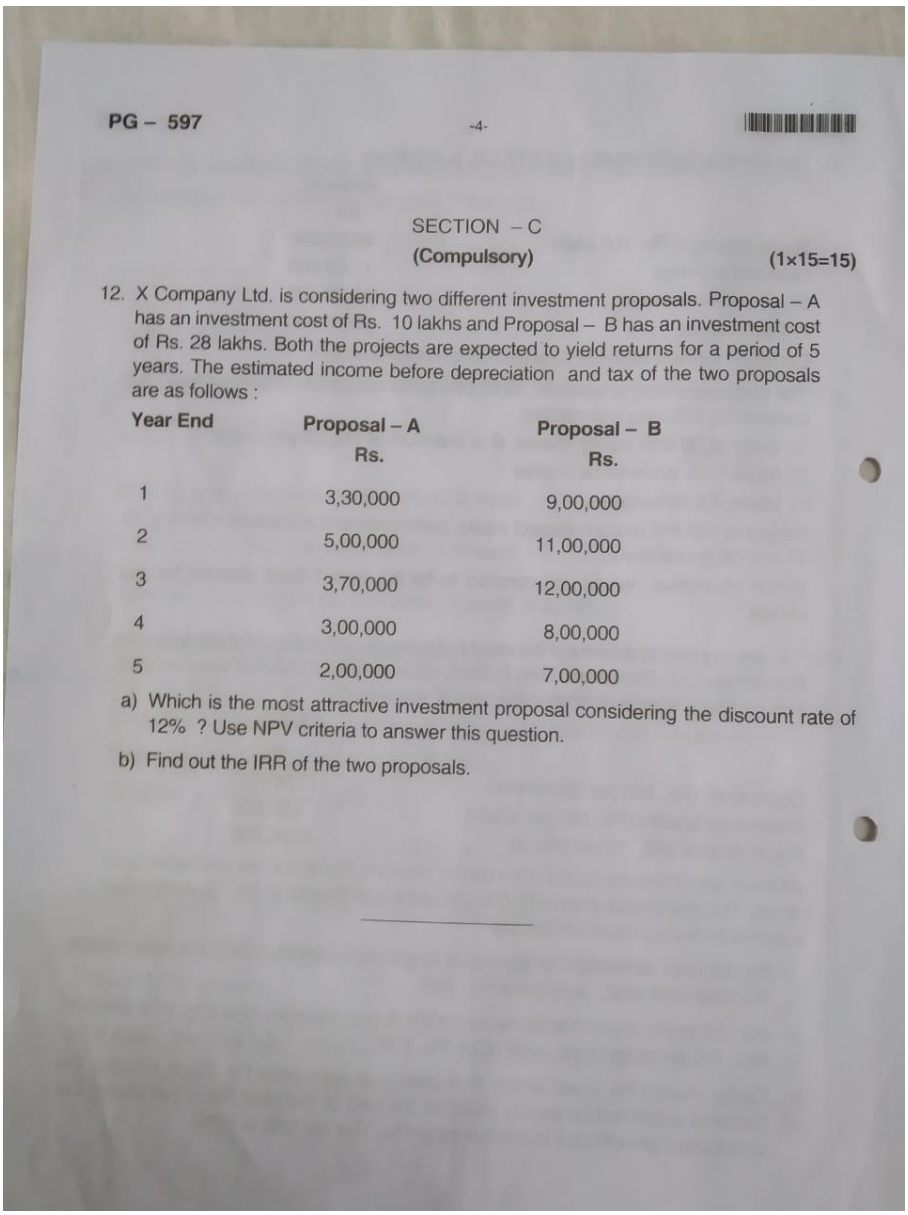
	Amount Rs.
Debenture (Rs. 100 per debenture)	16,00,000
Preference shares (Rs. 100 per share)	4,00,000
Equity shares (Rs. 10 per share)	20,00,000

All these securities are traded in the capital markets. Recent prices are Debentures @ Rs. 110, preference shares @ Rs. 120 and equity shares @ Rs. 22. Anticipated external financing opportunities are

i) Rs. 100 per debenture redeemable at par, 10 years maturity, 8% coupon rate, 4% floatation cost, sale price Rs. 100.

ii) Rs. 100 preference shares, redeemable @ par, 15 years maturity, 10% dividend rate, 5% floatation cost, sale price Rs. 100.

iii) Equity shares Rs. 2 per share floatation cost, sale price Rs. 22. In addition the dividend expected on equity share at the end of the year Rs. 2 per share, the anticipated growth rate in dividends is 5%. The tax rate is 50%.



PG – 597 -4-

SECTION – C

(Compulsory) **(1×15=15)**

12. X Company Ltd. is considering two different investment proposals. Proposal – A has an investment cost of Rs. 10 lakhs and Proposal – B has an investment cost of Rs. 28 lakhs. Both the projects are expected to yield returns for a period of 5 years. The estimated income before depreciation and tax of the two proposals are as follows :

Year End	Proposal – A Rs.	Proposal – B Rs.
1	3,30,000	9,00,000
2	5,00,000	11,00,000
3	3,70,000	12,00,000
4	3,00,000	8,00,000
5	2,00,000	7,00,000

a) Which is the most attractive investment proposal considering the discount rate of 12% ? Use NPV criteria to answer this question.

b) Find out the IRR of the two proposals.

PG – 872

II Semester M.B.A. Degree Examination, July 2017
(CBCS)
MANAGEMENT
2.5 : Financial Management

Time : 3 Hours Max. Marks : 70

***Instruction**: Answer **all** the Sections.*

SECTION – A

Answer **any five** of the following questions. **Each** question carries **5** marks. **(5×5=25)**

1. When can there arise a conflict between shareholders' and managers' goals ? How can it be resolved ?
2. Briefly explain the features of Venture Capital.
3. Explain the factors influencing dividend policy.
4. The earnings per share of a company are Rs. 10. It has an internal rate of return of 15% and the capitalization rate of its risk class is 12.5%. If Walter's model is used :
   i) What should the optimum payout ratio of the firm ?
   ii) What would be the price of the share at this payout ?
5. Assuming that a firm pays tax at a 40% tax rate, compute the after tax cost of capital in the following cases :
   a) A bond, sold at Rs. 100 with a 7 percent interest and a redemption price of Rs. 110, if the company redeems it in 5 years.
   b) An ordinary share, selling at a current market price of Rs. 120 and paying a current dividend of Rs. 9 per share, which is expected to grow at a rate of 8% ?
6. Rao Corporation has a target capital structure of 60% equity and 40% debt. Its cost of equity is 18% and its pre-tax cost of debt is 13%. If the relevant tax rate is 35%, what is Rao Corporation's WACC ?
7. Explain the role of finance manager in the changing scenario of financial management in India.

P.T.O.

ST. JOHN'S COLLEGE 11/17 LIBRARY

PG – 872

SECTION – B

Answer **any three** of the following, **each** question carries **ten** marks. (10×3=30)

8. "Finance function of a business is closely related to its other functions". Discuss with suitable examples.

9. A firm's sales, variable costs and fixed cost amount to Rs. 75,00,000, Rs. 42,00,000 and Rs. 6,00,000 respectively. It has borrowed Rs. 45,00,000 at 9 percent and its equity capital totals Rs. 55,00,000.
   a) What is the firm's ROI ?
   b) Does it have a favorable financial leverage ?
   c) If the firm belongs to an industry whose asset turnover is 3, does it have a high or low asset leverage ?
   d) What are the operating, financial and combined leverages of the firm ?
   e) If the sales drop to Rs. 50,00,000, what will the new EBIT be ?
   f) At what level will the EBT of the firm equal to zero ?

10. JKL Limited is considering the revision of its credit policy with a view to increasing its sales and profit. Currently all its sales are on credit and the customers are given one month's time to settle the dues. It has a contribution of 40% on sales and it can raise additional funds at a cost of 20% per annum. The marketing manager of the company has given the following options along with estimates for considerations :

Particulars	Current Position	Option I	Option II	Option III
Sales (in Lakh Rs.)	200	210	220	250
Credit period (in months)	1	1.5	2	3
Bad debts (% of sales)	2	2.5	3	5
Cost of credit administration (in Rs. Lakhs)	1.20	1.30	1.50	3.00

You are required to advise the company for the best option.

-3- PG – 872

11. A proforma cost sheet of a company provides the following particulars :

	Amount per unit (₹)
Raw material	80
Direct labour	30
Overheads	60
Total cost	170
Profit	30
Selling price	**200**

The following further particulars are available. Raw materials are in stock on an average for one month, WIP on an average for half a month. Finished goods are in stock on an average for one month.

Credit allowed by suppliers is one month, credit allowed to customers is two months. Lag in payment of wages is 1½ weeks (1.5), lag in payment of overhead expenses is one month. One-forth of the output is sold against cash, cash in hand and at bank is expected to be ₹ 25,000. You are required to prepare a statement showing the working capital needed to finance a level of activity of 1,04,000 units of production. You may assume that production is carried on evenly throughout the year, wages and overheads accrue similarly and a time period of 4 weeks is equivalent to a month.

SECTION – C

12. **Compulsory** question : (1×15=15)

Case study :

You are a financial analyst for Hitesh Co. Ltd. The Director of capital budgeting has asked you to analyze the two proposed capital investments, Project X and Project Y. Each project has a cost of Rs. 2 million and the cost of capital for each project is 12%. The project's expected profit before depreciation and taxes are :

Year	Project X (PBDT)	Project Y (PBDT)
1	8,00,000	15,00,000
2	8,00,000	10,00,000
3	8,00,000	6,00,000
4	8,00,000	2,00,000

a) Calculate Pay Back Period, Net Present Value and Profitability Index.

b) Which project/projects should be accepted if they are independent ?

ST. JOHN COLLEGE
RG – 922
LIBRARY
BANGALORE-560 034

II Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.5 : Financial Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following questions. **Each** question carries **five** marks. (5×5=25)

1. Explain the various types of decisions which are to taken by financial manager in the emerging business scenario.
2. Discuss any five factors relevant in determining capital structure.
3. Why dividend policy is important for a company ? Explain.
4. A company has Rs. 20,00,000 6% Debentures outstanding today, which will be redeemed after 5 years. For redemption the company established a sinking fund and its investments earn interest @ 10% p.a. What annual payment must the firm make to ensure that the needed Rs. 20,00,000 available on the designated date.
5. The capital structure of Bombay Traders Ltd. as on 31-3-2015 is as follows

	Rs. in crores
Equity capital : 100 lakh equity shares of Rs. 10 each	10
Retained Earnings	2
14% debentures	3

For the year ended 31-3-2015 the company has paid a equity dividend at 20% and the growth rate is 5% every year. The equity shares are traded at Rs. 80 per share in the stock exchange. Tax rate applicable to the company is 40%. Calculate the current weighted average cost of capital.

P.T.O.

PG – 922

6. The following details of ABC Ltd. for the year ended 31-3-2015 are furnished.

Operating leverage	3
Financial leverage	2
Interest charges p.a.	Rs. 20 lakhs
Corporate tax	40%
Variable cost as a % of sales	60%

Prepare the Income Statement of the company.

7. A company sells 40,000 units of its product per year @ Rs. 35 per unit. The variable cost per unit is Rs. 28. The average collection period is 60 days. Bad debt losses are 3% on sales and the collection charges amount to Rs. 15,000.

The company is considering the proposal to follow stricter collection policy which would bring down bad debts to 1% of sales and average collection period to 45 days. It would however, reduce the sales volume by 1000 units and increase the collection expenses to Rs. 25,000.

The company requires a rate of return of 20% would you recommend the adoption of the new credit policy ?

SECTION – B

Answer **any three** of the following questions. **Each** questions carries **ten** marks. (3×10=30)

8. What is working capital policy ? Explain the different types of working capital policies of the business firm.

9. "Walter's model asserts that retentions influence stock price only through their effect on future dividends" – Discuss.

10. XYZ Ltd. is considering three financing plans.

Financial Plan	Equity	Debt	Preference
A	100%	–	–
B	50%	50%	–
C	50%	–	50%

PG – 922

Total funds to be raised	Rs. 200 crores
Rate of Interest on debt	12%
Corporate tax rate	35%
Dividend on preference shares	9%
Face value of equity share	Rs. 10 each.
	These shares will be issued at a premium of Rs. 10 per share
Expected E.B.I.T	Rs. 80 crore

Determine :

i) E.P.S. under each plan

ii) Indifference points between financial plans A and B and A and C.

11. Capro industries plans an investment of Rs. 75,000 in a new machinery that would produce inflow of Rs. 25,000 every year for 5 years. The representative of another equipment manufacturer presents an alternative proposal. By investing Rs. 1,60,000 in his company's equipment Capro industries can obtain a cash inflow of Rs. 50,000 every year for five years. In future, an investment of this type can be expected to yield a discounted rate of return of 12%.

You are required to find :

a) Which alternative is more attractive if a discounted rate of 12% is expected ?

b) The discounted rate of return on investment alternatives.

c) Discounted rate of return on incremental investment.

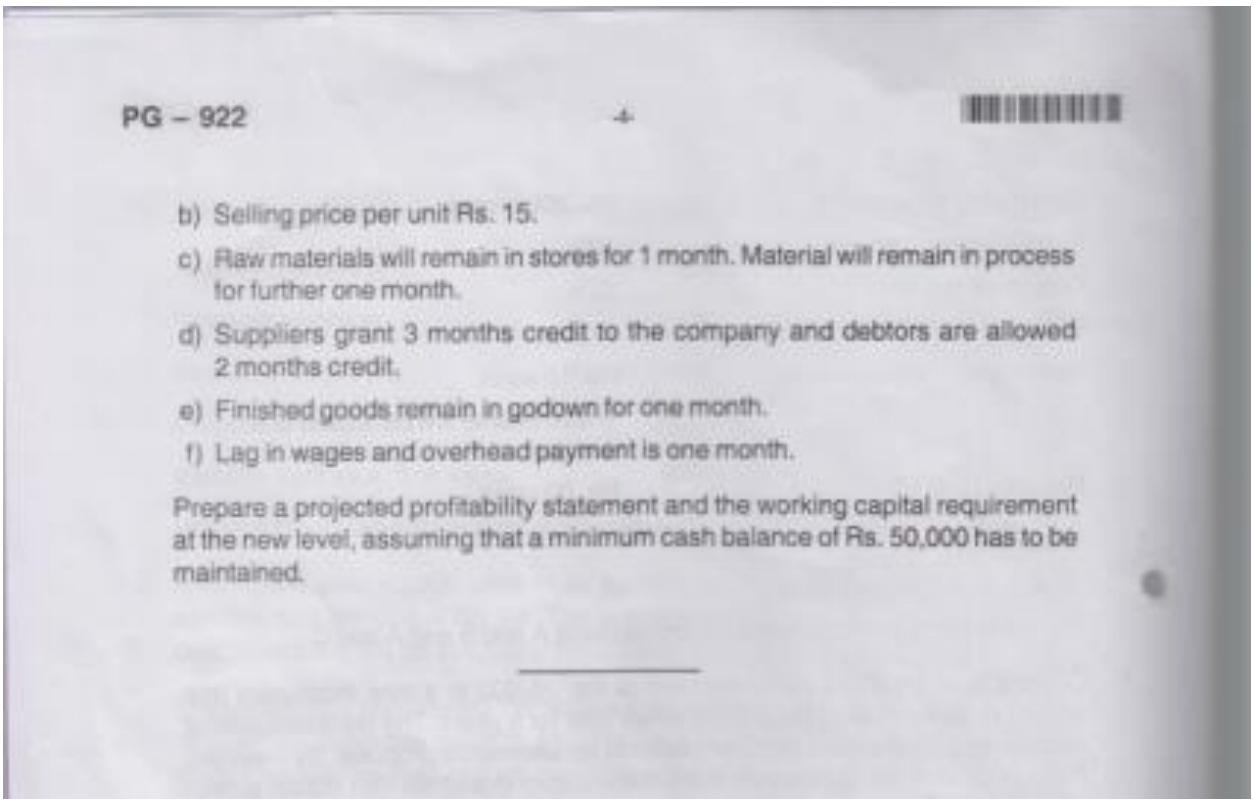
SECTION – C

12. Case study – **Compulsory.** 15

XYZ Ltd. is presently operating at 60% level producing 36000 units and proposes to increase capacity utilization in the coming year 33 $\frac{1}{3}$ % over the existing level of production. The following data has been supplied.

a) The expected ratio's of cost to selling price are :

Raw material	–	40%
Direct wages	–	20%
Overheads	–	20%



PG – 922 -4-

b) Selling price per unit Rs. 15.

c) Raw materials will remain in stores for 1 month. Material will remain in process for further one month.

d) Suppliers grant 3 months credit to the company and debtors are allowed 2 months credit.

e) Finished goods remain in godown for one month.

f) Lag in wages and overhead payment is one month.

Prepare a projected profitability statement and the working capital requirement at the new level, assuming that a minimum cash balance of Rs. 50,000 has to be maintained.

ST. JOHN'S COLLEGE LIBRARY BANGALORE-560 034

PG – 993

II Semester M.B.A. Degree Examination, June/July 2015
(CBCS Scheme)
2.5 : FINANCIAL MANAGEMENT

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions. **Each** question carries **five** marks. The answer must not exceed **250** words. (5×5=25)

1. Comment on the emerging role of finance manager in India.
2. Explain the determinants of working capital.
3. Discuss the various methods of calculating cost of equity.
4. Explain briefly the long term sources of finance available to business.
5. A company has 20,00,000, 6% debentures outstanding today. The company has to redeem the debentures after 5 years and establishes a sinking fund to provide funds for redemption. Sinking fund investments can earn @ 10% p.a. The investments are made at the end of each year. What annual payments must the firm make to ensure that the needed 20,00,000 is available on the designated date ?
6. From the following extracts of financial data prepare income statement for Radiant Ltd. and comment on its financial performance :

Variable cost (% of sales)	–	65
Interest burden	–	200
Degree of operating leverage	–	4%
Degree of financial leverage	–	3%

Tax rate @ 35%.

P.T.O.

PG – 993

-2-

7. The management of Royal industries has called for a statement showing the working capital needs to finance a level of activity of 1,80,000 units of output for the year. The cost structure for the company's product line the above mentioned activity level is detailed below :

	Cost per Unit (Rs.)
Raw materials	20
Direct labour	5
Overheads	15
	40
Profit	10
Selling price	50

Additional Information :

a) Minimum desired cash balance is Rs. 20,000.

b) Raw materials are held in stock, on an average, for 2 months.

c) Work-in-progress (assume 50% completion stage) will approximate to half month's production.

d) Finished goods remain in warehouse, on an average, for a month.

e) Suppliers of materials extend a month's credit and debtors are provided two month's credit; cash sales are 25% of total sales.

f) There is a time lag in payment of wages of a month and half-a-month in case of overheads.

From the above data, you are required to

1) Prepare a statement showing working capital needs.

SECTION – B

Answer **any three** questions. **Each** question carries **ten** marks. The answer must not exceed **500** words. (3x10=30)

8. Discuss the Walter's model of dividend policy. What are its implications ?

9. What is capital structure ? Explain the factors that influence capital structure.

-3- PG – 993

10. Three financing plans are available for Texas Manufacturing which needs Rs. 10,00,000 for construction of a new plant. Texas wants to maximize EPS. Currently the equity share is selling for Rs. 30 per share. The EBIT resulting from the plant operation is Rs. 1,50,000 p.a. The marginal tax rate is 30%. Money can be borrowed at the rates indicated below :

Upto Rs. 1,00,000 @ 10%

Over Rs. 1,00,000 to Rs. 5,00,000 @ 14%

Over Rs. 5,00,000 @ 18%.

The three financing plans are :

Plan A – Use 1,00,000 debt; expected EBIT Rs. 2,50,000

Plan B – Use 3,00,000 debt ; expected EBIT Rs. 3,50,000

Plan C – Use 6,00,000 debt ; expected EBIT Rs. 5,00,000.

Determine EPS for these three plans and indicate the plan which results in highest EPS.

11. Alpha Ltd. has the following capital structure as per its B/S as at 31-3-2015 :

	in lakhs
Equity share capital (fully paid share of Rs. 10 each)	8
18% Preference share capital (fully paid share of Rs. 100 each)	6
Reserves and surplus	2
12.5% debentures (fully paid debenture of Rs. 100 each)	16
12% term loans	8
	40

Additional Information :

a) The current market price of the company's share is Rs. 64.25. The prevailing default risk free interest rate on 10 year GOI treasury bonds is 5.5%. The average market risk premium is 8%. The beta of the company is 1.1875

PG – 993 -4-

b) The Preference shares of the company which are redeemable after 10 years are currently selling at 90 per preference share.

c) The debentures of the company which are redeemable after 5 years are currently quoted at 95 per debenture.

d) The corporate tax rate is 30%.

Required :

Calculate weighted average cost of capital using

a) book value weights

b) market value weights.

SECTION – C

Case Study (Compulsory) : **(1x15=15)**

12. Karnataka Diagnostics a mid sized medical service company wished to invest in new medical diagnostic technology. The management is considering the following two projects which it is considered will meet Karnataka requirement :

	(Million) Project 1	Project 2
Initial cash outlay	160	100
Net cash inflows :		
Year 1	30	30
Year 2	40	30
Year 3	50	30
Year 4	60	30
Year 5	70	30

Assume cost of capital as 10%.

a) Determine payback period, NPV, PI and IRP.

b) Indicate which project would you recommend ?

c) Discuss briefly any non-financial factors which Karnataka Diagnostics should consider ?

T. JOHN COLLEGE LIBRARY

No. of Printed Pages : 3

PG-613

II Semester M.B.A. (Day) (CBCS) Examination, July - 2019

MANAGEMENT 12622

2.6 Quantitative Techniques and Operation Research

Time : 3 Hours Max. Marks : 70

Instructions : *(i) Answer* ***all*** *the sections.*
(ii) Calculators and Normal Distribution table is allowed.

SECTION - A

Answer **any five** questions, each question carries **5** marks. **5x5=25**

1. What are the applications of Operation Research in modern business ?

2. Explain the importance of Queuing theory in mgt. decision making.

3. Explain the procedure for calculation of Modified Distribution Method (MODI).

4. A Company manufactures around 200 Mopeds. Depending upon the availability of raw materials and other condition, the daily production has been varying from 196 Mopeds to 204 Mopeds, whose probability distribution is as given below :

Production per day :	196	197	198	199	200	201	202	203	204
Probability :	0.05	0.09	0.12	0.14	0.20	0.15	0.11	0.08	0.06

The finished Mopeds are transported in a specially designed three storeyed lorry that can accommodate only 200 Mopeds. Using the following 10 Random Numbers 82, 89, 78, 24, 53, 61, 18, 45, 04, 23. Simulate the process to find out :

(i) What will be the average number of Mopeds waiting in the factory ?
(ii) What will be the average number of empty spaces on the lorry ?

5. Solve the following games.

Player Q

Player P	I	II	III	IV
I	6	4	8	0
II	6	8	4	8
III	8	4	8	0
IV	0	8	0	16

P.T.O.

PG-613 2

6. Solve the following assignment problem. The district wise sales of five salesman is given as under. (Sales in ₹ 000's)

Salesman	Districts				
	D_1	D_2	D_3	D_4	D_5
S_1	38	44	47	35	50
S_2	49	33	37	30	42
S_3	50	36	40	39	46
S_4	28	44	48	45	43
S_5	39	40	48	45	46

7. A firm is using a machine whose purchase price is ₹ 13,000. The installation charges amount to ₹ 3,600 and the machine has a scrap value of only ₹ 1,600 because the firm has a Monopoly of this type of work.

The maintenance cost in various years is given in the following table :

Year :	1	2	3	4	5	6	7	8	9
Cost (₹) :	250	750	1,000	1,500	2,100	2,900	4,000	4,800	6,000

The firm wants to determine after how many years should the machine be replaced on economic consideration, assuming that the machine replacement can be done only at the year ends.

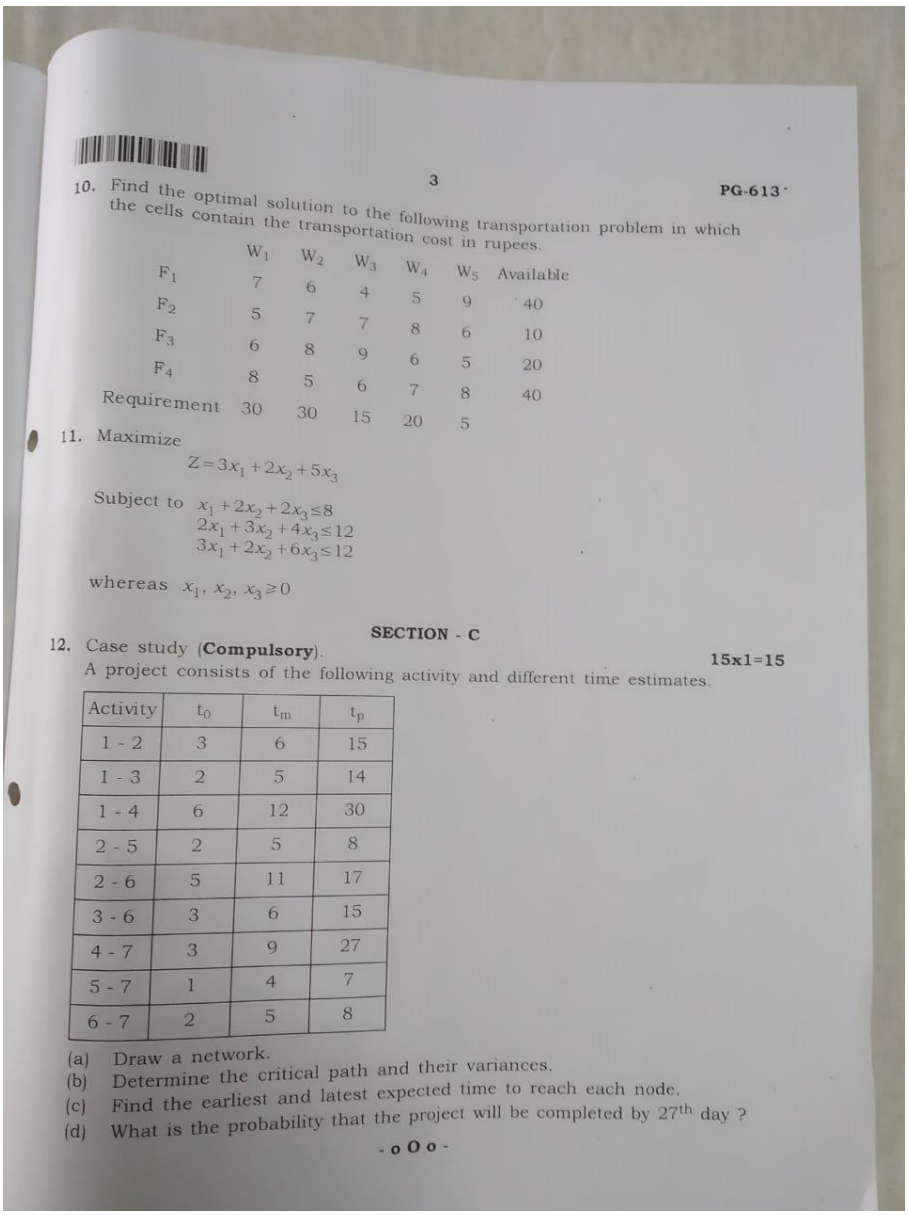
SECTION - B

Answer **any three** questions, each question carries **10** marks. **10x3=30**

8. Explain the term Operation Research and give its characteristic features. Give an example to support your views.

9. Solve the sequencing problem if each Job is performed in the same order CAB. Time in hours on Machines is given below :

Jobs		J_1	J_2	J_3	J_4	J_5	J_6	J_7	J_8
Machines	M_1	4	6	7	4	5	3	6	2
	M_2	8	10	7	8	11	8	9	13
	M_3	5	6	2	3	4	9	15	11



3 PG-613

10. Find the optimal solution to the following transportation problem in which the cells contain the transportation cost in rupees.

	W_1	W_2	W_3	W_4	W_5	Available
F_1	7	6	4	5	9	40
F_2	5	7	7	8	6	10
F_3	6	8	9	6	5	20
F_4	8	5	6	7	8	40
Requirement	30	30	15	20	5	

11. Maximize

$$Z = 3x_1 + 2x_2 + 5x_3$$

Subject to $x_1 + 2x_2 + 2x_3 \leq 8$
$2x_1 + 3x_2 + 4x_3 \leq 12$
$3x_1 + 2x_2 + 6x_3 \leq 12$

whereas $x_1, x_2, x_3 \geq 0$

SECTION - C

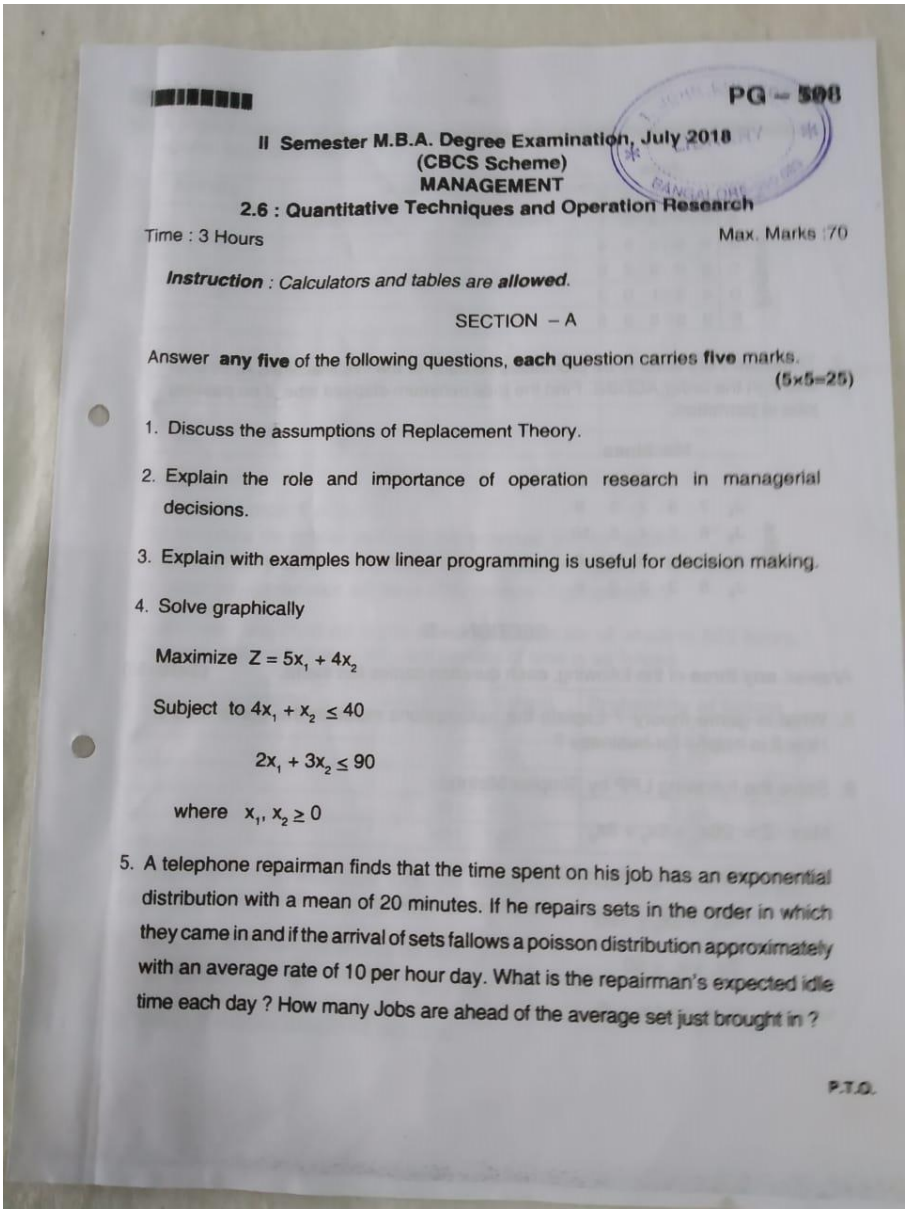
12. Case study (**Compulsory**). **15x1=15**

A project consists of the following activity and different time estimates.

Activity	t_0	t_m	t_p
1 - 2	3	6	15
1 - 3	2	5	14
1 - 4	6	12	30
2 - 5	2	5	8
2 - 6	5	11	17
3 - 6	3	6	15
4 - 7	3	9	27
5 - 7	1	4	7
6 - 7	2	5	8

(a) Draw a network.
(b) Determine the critical path and their variances.
(c) Find the earliest and latest expected time to reach each node.
(d) What is the probability that the project will be completed by 27th day ?

- o O o -



PG – 598

II Semester M.B.A. Degree Examination, July 2018
(CBCS Scheme)
MANAGEMENT
2.6 : Quantitative Techniques and Operation Research

Time : 3 Hours Max. Marks :70

Instruction *: Calculators and tables are* ***allowed****.*

SECTION – A

Answer **any five** of the following questions, **each** question carries **five** marks. (5×5=25)

1. Discuss the assumptions of Replacement Theory.
2. Explain the role and importance of operation research in managerial decisions.
3. Explain with examples how linear programming is useful for decision making.
4. Solve graphically

   Maximize $Z = 5x_1 + 4x_2$

   Subject to $4x_1 + x_2 \leq 40$

   $2x_1 + 3x_2 \leq 90$

   where $x_1, x_2 \geq 0$
5. A telephone repairman finds that the time spent on his job has an exponential distribution with a mean of 20 minutes. If he repairs sets in the order in which they came in and if the arrival of sets fallows a poisson distribution approximately with an average rate of 10 per hour day. What is the repairman's expected idle time each day ? How many Jobs are ahead of the average set just brought in ?

P.T.O.

PG – 598

6. Solve the assignment problem for minimum optimal cost

Persons \ Jobs	1	2	3	4	5
A	8	4	2	6	1
B	0	9	5	5	4
C	3	8	9	2	6
D	4	3	1	0	3
E	9	5	8	9	5

7. There are Four Jobs to be processed on each of the five Machines A, B, C, D and E in the order ACDBE. Find the total minimum elapsed time, if no passing jobs is permitted.

Jobs \ Machines	A	B	C	D	E
J_1	7	5	2	3	9
J_2	6	6	4	5	10
J_3	5	4	5	6	8
J_4	8	3	3	2	6

SECTION – B

Answer **any three** of the following, **each** question carries **ten** marks. **(3×10=30)**

8. What is game theory ? Explain the assumptions made in the game theory. How it is helpful for business ?

9. Solve the following LPP by Simplex Method.

Max $Z = 20x_1 + 6x_2 + 8x_3$

Subject to $8x_1 + 2x_2 + 3x_3 \leq 200$

$4x_1 + 3x_2 \leq 100$

$2x_2 + x_3 \leq 50$

where x_1, x_2 and $x_3 \geq 0$

-3- PG – 598

10. A project consists of the following activities, whose time estimates are given against each as under :

Activity	Estimated duration (weeks)		
	Optimistic	Most likely	Pessimistic
1 – 2	3	6	15
1 – 3	2	5	14
1 – 4	6	12	30
2 – 5	2	5	8
2 – 6	5	11	17
3 – 6	3	6	15
4 – 7	3	9	27
5 – 7	1	4	7
6 – 7	4	19	28

Required :

1) Draw the project network.
2) Determine the critical path and the expected project duration.
3) What is the probability that the project will be completed in 40 weeks ?
4) What project duration will have 95% chance of completion ?

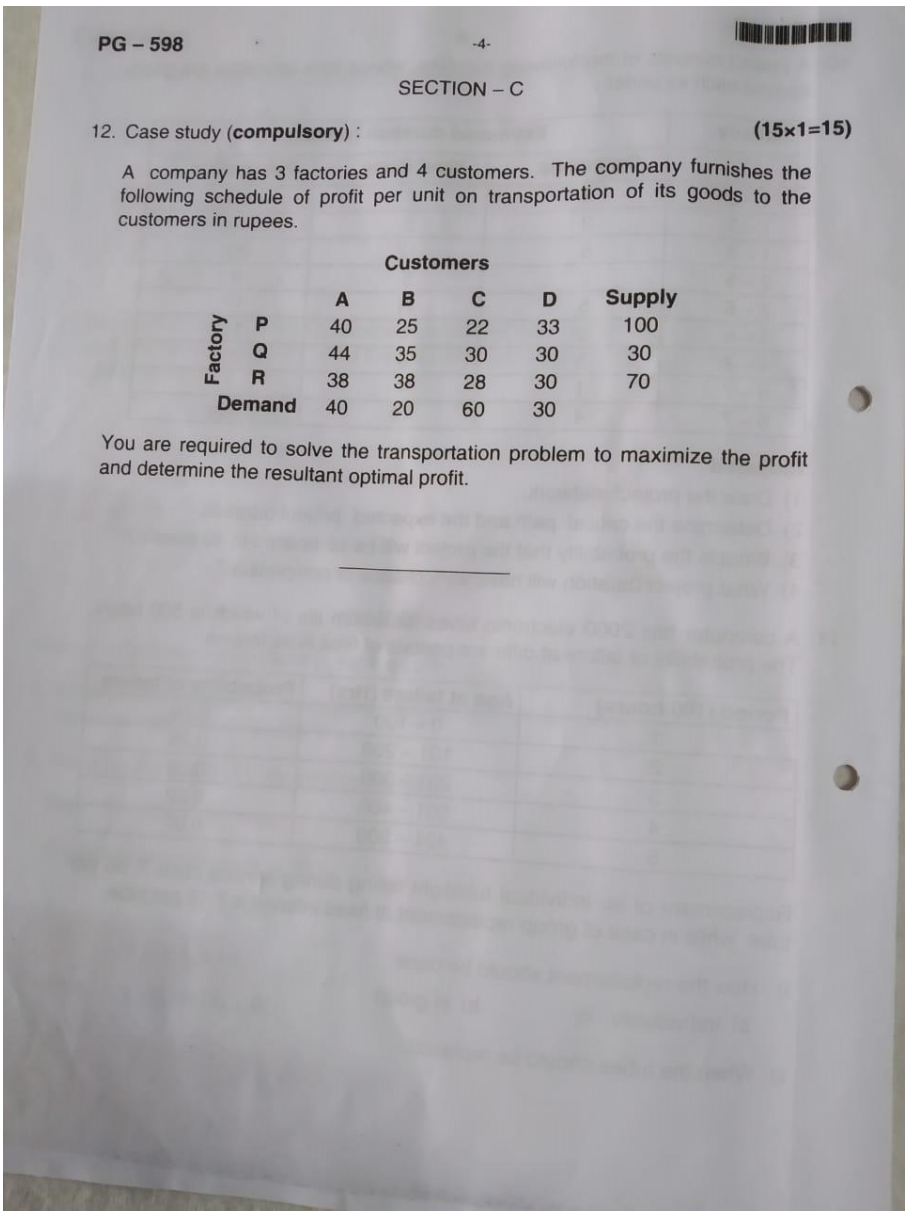
11. A computer has 2000 electronic tubes maximum life of which is 500 hours. The probability of failure at different periods of time is as follows :

Period (100 hours)	Age at failure (Hrs)	Probability of failure
1	0 – 100	0.10
2	101 – 200	0.26
3	201 – 300	0.35
4	301 – 400	0.22
5	401 – 500	0.07

Replacement of an individual tubelight failing during service costs ₹ 60 per tube, while in case of group replacement at fixed interval is ₹ 15 per tube.

i) How the replacement should be done
   a) Individually or b) in group

ii) When the tubes should be replaced.



PG – 598 -4-

SECTION – C

12. Case study (**compulsory**) : **(15×1=15)**

A company has 3 factories and 4 customers. The company furnishes the following schedule of profit per unit on transportation of its goods to the customers in rupees.

		Customers				
		A	**B**	**C**	**D**	**Supply**
Factory	**P**	40	25	22	33	100
	Q	44	35	30	30	30
	R	38	38	28	30	70
	Demand	40	20	60	30	

You are required to solve the transportation problem to maximize the profit and determine the resultant optimal profit.

PG – 873

II Semester M.B.A. Degree Examination, July 2017
(CBCS Scheme)
MANAGEMENT
2.6 : Quantitative Techniques and Operation Research

Time : 3 Hours Max. Marks : 70

Instructions : *Answer **all** the Sections.*
*Calculators and normal distribution tables are **allowed**.*

SECTION – A

Answer **any five** of the following questions, **each** question carries **five** marks. **(5x5=25)**

1. Explain the role of queuing theory in decision-making and discuss its application.
2. Write a detailed note on role of operations research models in decision making.
3. Solve the following game theory using dominance principle.

ST. JOHN'S ... LIBRARY ... BENGALURU

		Firm B			
		B_1	B_2	B_3	B_4
Firm A	A_1	35	65	25	05
	A_2	30	20	15	00
	A_3	40	50	00	10
	A_4	55	60	10	15

4. The captain of a cricket team has to allot five middle batting positions to five batsmen. The average runs scored by each batsman at these positions are as follows :

		Batting positions				
		I	II	III	IV	V
Batsmen	P	40	40	35	25	50
	Q	42	30	16	25	27
	R	50	48	40	60	50
	S	20	19	20	18	25
	T	58	60	59	55	53

Find the assignment of batsman to positions which would give the maximum number of runs.

P.T.O.

PG – 873

5. The Crux Honda Ltd. manufactures around 150 scooters. The daily production varies from 146 to 154 depending upon the availability of raw materials and other working conditions.

Production per day	146	147	148	149	150	151	152	153	154
Probability	0.04	0.09	0.12	0.14	0.11	0.10	0.20	0.12	0.08

The finished scooters are transported in a specially arranged lorry accommodating 150 scooters, using the following random numbers :

80, 81, 76, 75, 64, 43, 18, 26, 10, 12, 65, 68, 69, 61, 57. Simulate the process to find out :

a) What will be the average number of scooters waiting in the factory ?

b) What will be the average number of empty space on the lorry ?

6. Find the sequence of the following eight jobs, that will minimize the total elapsed time for the completion of all the jobs. Each job is processed in the same order CAB. Entries given are time in hours on the machines.

Jobs

Machines	J_1	J_2	J_3	J_4	J_5	J_6	J_7	J_8
A	4	6	7	4	5	3	6	2
B	8	10	7	8	11	8	9	13
C	5	6	2	3	4	9	15	11

7. What is linear programming ? What is its importance in today's business ?

SECTION – B

Answer **any three** of the following questions, **each** question carries **ten** marks. **(3×10=30)**

8. Discuss the significance and scope of operation research in modern business management.

9. A publisher has rest signed a contract for the publication of a book. What is the earliest time that the book can be ready for distribution ? The tasks in the table are involved, with the estimates given in weeks.

Activity	A	B	C	D	E	F	G	H	I	J
Precedence	–	–	A, B	A	C, D	E	E	C, D	F, G	I, H
Most likely	8	2	2	6	4	3	4	6	8	1
Optimistic	4	2	1	4	3	3	3	4	6	1
Pessimistic	10	2	3	12	5	3	5	9	16	1

i) Draw a network and find the critical path, what is the expected length of the critical path and what is its variance ?

ii) What is the probability that the length of the critical path does not exceed

a) 32 weeks

b) 36 weeks.

10. Solve the given LPP by simplex method.

Maximize $Z = 5x_1 + 10x_2 + 8x_3$

Subject to $3x_1 + 5x_2 + 2x_3 \leq 60$

$4x_1 + 4x_2 + 4x_3 \leq 72$

$2x_1 + 4x_2 + 5x_3 \leq 100$

$x_1, x_2, x_3 \geq 0$.

11. The following mortality rates have been observed for a certain types of fuses :

Week	1	2	3	4	5
% failing by the end of week	5	15	35	75	100

There are 1000 fuses in use and it costs Rs. 5 to replace on individual fuse. If all fuse were replaced simultaneously it would cost Rs. 1.25 per fuse. At what intervals the groups replacement should be done ? Which policy is better ?

PG – 873

SECTION – C

12. Case study (**compulsory**) : **(1×15=15)**

Solve the transportation problem to maximise profits and give criterion for optimality.

		Destinations				
		D_1	D_2	D_3	D_4	Capacity
Plants	P_1	40	25	22	33	100
	P_2	44	35	30	30	30
	P_3	38	38	28	30	70
Requirement		40	20	60	30	200 / 150

ST. JOHN'S COLLEGE LIBRARY BANGALORE

PG – 923

II Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.6 : Quantitative Techniques and Operation Research

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following. **Each** question carries **five** marks. (5×5=25)

1. Distinguish between Analytical and Simulation Models.

2. A firm is considering replacement of a machine whose cost price is Rs. 12,200 and the scrap value is Rs. 200. The maintenance costs are found from experience to be as follows :

Year	1	2	3	4	5	6	7	8
Maintenance Cost (Rs.)	200	500	800	1200	1800	2500	3200	4000

What is the optimal replacement interval for this machine ?

3. Five jobs are to be processed and five machines are available. Any machine can process any job with resulting Profit (in Rs.) as follows. Find assignment pattern that maximizes the sales.

		Machines				
		A	B	C	D	E
Jobs	1	70	75	71	60	80
	2	55	57	64	61	50
	3	60	54	80	71	55
	4	80	72	75	65	70
	5	50	56	70	51	72

4. Explain the essential features of queuing system.

P.T.O.

PG – 923

5. What is degeneracy ? How it can be resolved in case of Transportation ?

6. Find out the sequence that minimizes the total elapsed time required in performing the following tasks on machine M_1 and M_2 in the order M_1, M_2. Also, find the minimum total elapsed time.

Task	A	B	C	D	E	F	G	H	I
M_1	2	5	4	9	6	8	7	5	4
M_2	6	8	7	4	3	9	3	8	11

7. Moon Light Bakery keeps stock of a popular brand of cake. Previous experience indicates the daily demand as given here.

Daily Demand	0	10	20	30	40	50
Probability	.01	.20	.15	.50	.12	.02

Consider the following sequence of random numbers.

R. No. 48, 78, 19, 51, 56, 77, 15, 14, 68, 09

Simulate the demand for next 10 days. Find out the stock situation if the owner of the bakery decides to make 30 cakes every day. Also estimate the daily average demand for the cakes on the basis of simulated data.

SECTION – B

Answer **any three** of the following questions **each** question carries **ten** marks. (10×3=30)

8. National Oil Co. has three refineries and 4 depots. Transaction costs per barrel and requirements are given below. Determine optimal allocation of output.

	D_1	D_2	D_3	D_4	Capacity
R_1	5	7	13	10	700
R_2	8	6	14	13	400
R_3	12	10	9	11	800
Requirement	300	600	700	400	

PG – 923

9. "Operation Research is the application of Scientific Methods, techniques and tools to problems involving in the operations of a system so as to provide those in control of the systems with optimum solution to the problems." Discuss with suitable examples.

10. Determine the dominance principle of game theory using the following :

		Firm B			
		B_1	B_2	B_3	B_4
Firm A	A_1	15	35	25	5
	A_2	10	20	5	0
	A_3	20	50	10	5
	A_4	25	55	15	20

11. A project consists of eight activities with the following relevant information :

Activities	Immediate Predecessor	Estimated Duration (Days)		
		Optimistic	Most Likely	Pessimistic
A	–	1	1	7
B	–	1	4	7
C	–	2	2	8
D	A	1	1	1
E	B	2	5	14
F	C	2	5	8
G	D,E	3	6	15
H	F,G	1	2	3

1) Draw the PERT network and determine critical path.

2) If a 30 days deadline is imposed, what is the probability that the project will be finished within the time ?

3) If the project manager wants to be 99% sure that the project is completed on the scheduled date, how many Weeks before that date should he start the project work ?

PG – 923 -4-

SECTION – C

12. Case Study (**Compulsory**) : **(1×15=15)**

A company manufactures three types of parts which use precious metals platinum and gold. Due to shortage of these precious metals, the govt. regulates the amount that may be used per day. The relevant data with respect to supply requirements and profit are summarized in the table shown below :

Product	Platinum Per Unit (gm)	Gold Required Per Unit (gm)	Profit Per Unit (Rs.)
A	2	3	500
B	4	2	600
C	6	4	1200

Daily allotment of platinum and gold are 160 gm and 120 gm respectively. Determine the optimum profit under Simplex Method.

ST. JOHN'S COLLEGE LIBRARY BANGALORE-560 034

PG – 994

II Semester M.B.A. Degree Examination, June/July 2015
(CBCS)
MANAGEMENT
2.6 : Quantitative Techniques and Operations Research

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following, **each** question carries **five** marks. Answer to **each** theory question should **not** exceed **250** words. (5×5=25)

1. Explain the importance of operations research in modern management.
2. What is meant by degeneracy ? Explain the method of resolving the degeneracy.
3. Solve the following games by dominance method.

Player Q

Player P	I	II	III	IV
I	6	4	8	0
II	6	8	4	8
III	8	4	8	0
IV	0	8	0	16

P.T.O.

PG – 994

4. Solve graphically of the LPP

Minimize $Z = 6x_1 + 14x_2$

Subject to $5x_1 + 4x_2 \geq 60$

$3x_1 + 7x_2 \geq 84$

$x_1 + 2x_2 \geq 18$

Where x_1 and $x_2 \geq 0$.

5. In the modification of a plant layout of a factory 4 new machines M_1, M_2, M_3 and M_4 are to be installed in a machine shop. There are 5 vacant places A, B, C, D and E available. Because of limited space, machine 2 (M_2) cannot be placed at C and M_3 cannot be placed at A. The cost of locating of machine 'i' to place 'j' (in ₹) is given below. Find the optimum assignment schedule.

	A	B	C	D	E
M_1	9	11	15	10	11
M_2	12	9	-	10	9
M_3	-	11	14	11	7
M_4	14	8	12	7	8

6. Find the sequence that minimizes the total elapsed time required to complete the following tasks on two machines.

Task	:	A	B	C	D	E	F	G	H	I
Machine 1	:	2	5	4	9	6	8	7	5	4
Machine 2	:	6	9	7	4	3	9	3	8	11

7. A truck owner finds from his past experience that the maintenance costs ₹ 200 for the first year and then increases by ₹ 2,000 every year. The cost of the truck type A is ₹ 9,000. Determine the best age at which to replace the truck. Truck B type cost ₹ 10,000; annual maintenance costs are ₹ 400 and increase by ₹ 800 every year. The truck owner now has truck type A, which is one year old should it be replaced by type B, if so when (Assume number of years can be considered are upto 7).

-3- PG – 994

SECTION – B

Answer **any three** of the following. **Each** question carries **10** marks. Answer to **each** theory question should **not** exceed **500** words. (10×3=30)

8. a) What are the assumptions underlying common queuing models ?

   b) A company manufactures around 200 mopeds. Depending upon the availability of raw materials and other conditions, the daily production has been varying from 196 mopeds to 204 mopeds. Whose probability distribution is as given below.

Production per day	196	197	198	199	200	201	202	203	204
Probability	0.05	0.09	0.12	0.14	0.20	0.15	0.11	0.08	0.06

The finished mopeds are transported in a specially designed three storeyed lorry that can accommodate only 200 moped, using the following 15 random numbers.

82, 89, 78, 24, 53, 61, 18, 45, 04, 23, 50, 77, 27, 54, 10. Simulate the process to find out

i) What will be the average number of mopeds waiting in the factory ?

ii) What will be the average number of empty spaces on the lorry ?

9. Write a detailed note on the role of operations research models in decision making.

10. Determine the optimal selection to the problem given below. Obtain the IFS by VAM.

To Market

From Plant		M_1	M_2	M_3	M_4	Supply
	P1	6	4	9	1	40
	P2	20	6	11	3	40
	P3	7	1	0	14	50
	P4	7	1	12	6	90
	Demand	90	30	50	30	

PG – 994 -4-

11. The time schedule for different activities of a project is given below.

Activity	1-2	1-3	1-4	2-3	2-6	3-5	4-5	4-6	5-6
Time (in days)	8	10	8	10	16	17	18	14	9

i) Construct network diagram.
ii) Critical path and its duration.
iii) Total and free float for each activity.

SECTION – C

12. Case study (**compulsory**) : (1×15=15)

Maximize $z = 500x_1 + 600x_2 + 1200x_3$

S.T. $2x_1 + 4x_2 + 6x_3 \leq 160$

$3x_1 + 2x_2 + 4x_3 \leq 120$

Where $x_1, x_2, x_3 \geq 0$

Solve the LPP by simplex method.

T. JOHN COLLEGE LIBRARY

No. of Printed Pages : 2

PG-614

II Semester M.B.A. (DAY) (CBCS) Examination, July - 2019

MANAGEMENT

12428

2.7 : Innovation Management

Time : 3 Hours Max. Marks : 70

SECTION - A

Answer **any five** of the following questions. Each question carries **five** marks. **5x5=25**

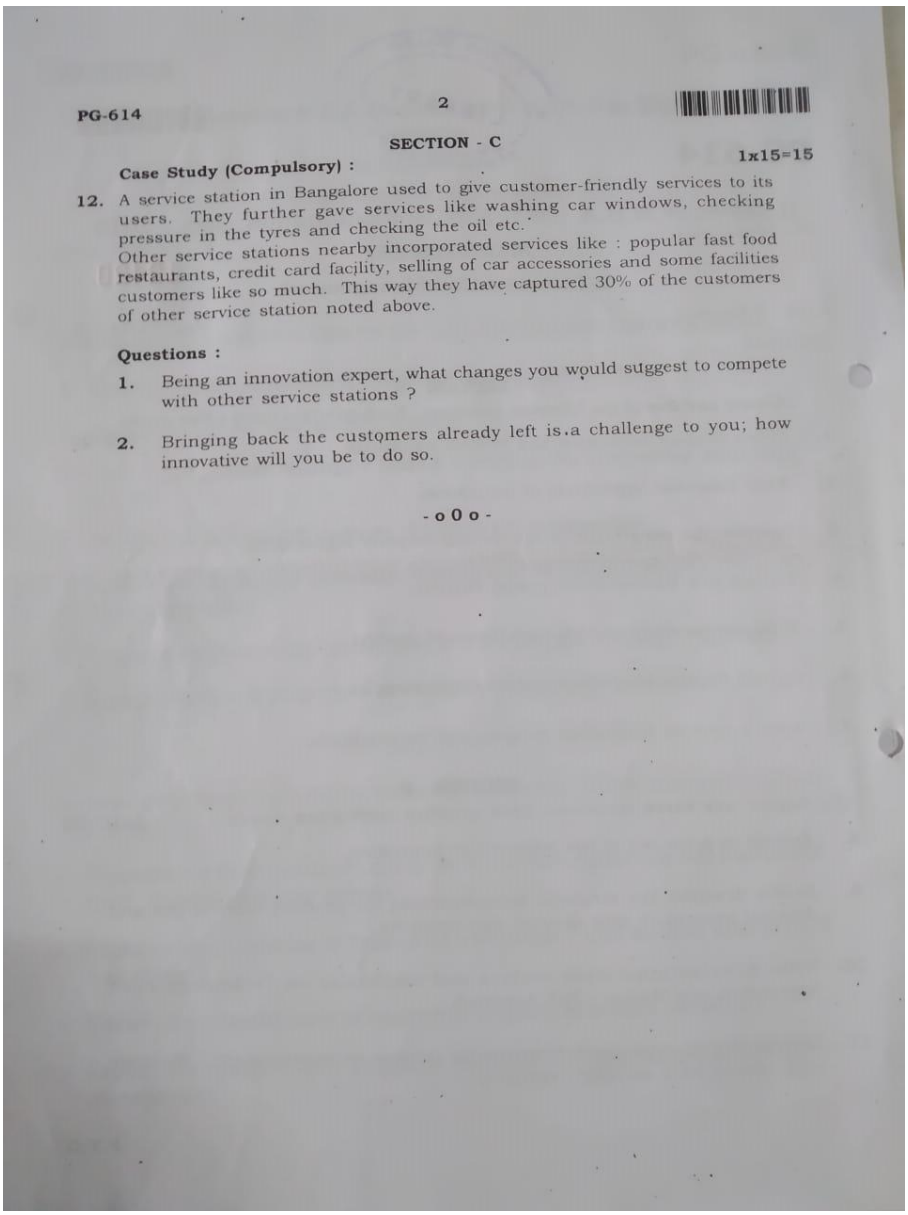
1. Define Product innovation and Process innovation.
2. Write Essential ingredients of innovation.
3. Describe the importance of Intellectual Property Rights (IPR).
4. Explain new Service Development Process.
5. Write the meaning and characteristics of product.
6. Explain Service Innovation and its characteristics.
7. Write a note on Innovation mindset and its essentials.

SECTION - B

Answer **any three** questions. Each question carries **ten** marks. **3x10=30**

8. Explain in detail out of box approach in innovation.
9. Briefly describe the strategic considerations on product innovations and different process in new product developments.
10. Write different innovation sources and emphasise on Technology Push Approaches and Market - Pull Approach.
11. Discuss the strategic considerations for innovation management. Illustrate your answer with suitable examples.

P.T.O.



PG-614 2

SECTION - C

Case Study (Compulsory) : 1x15=15

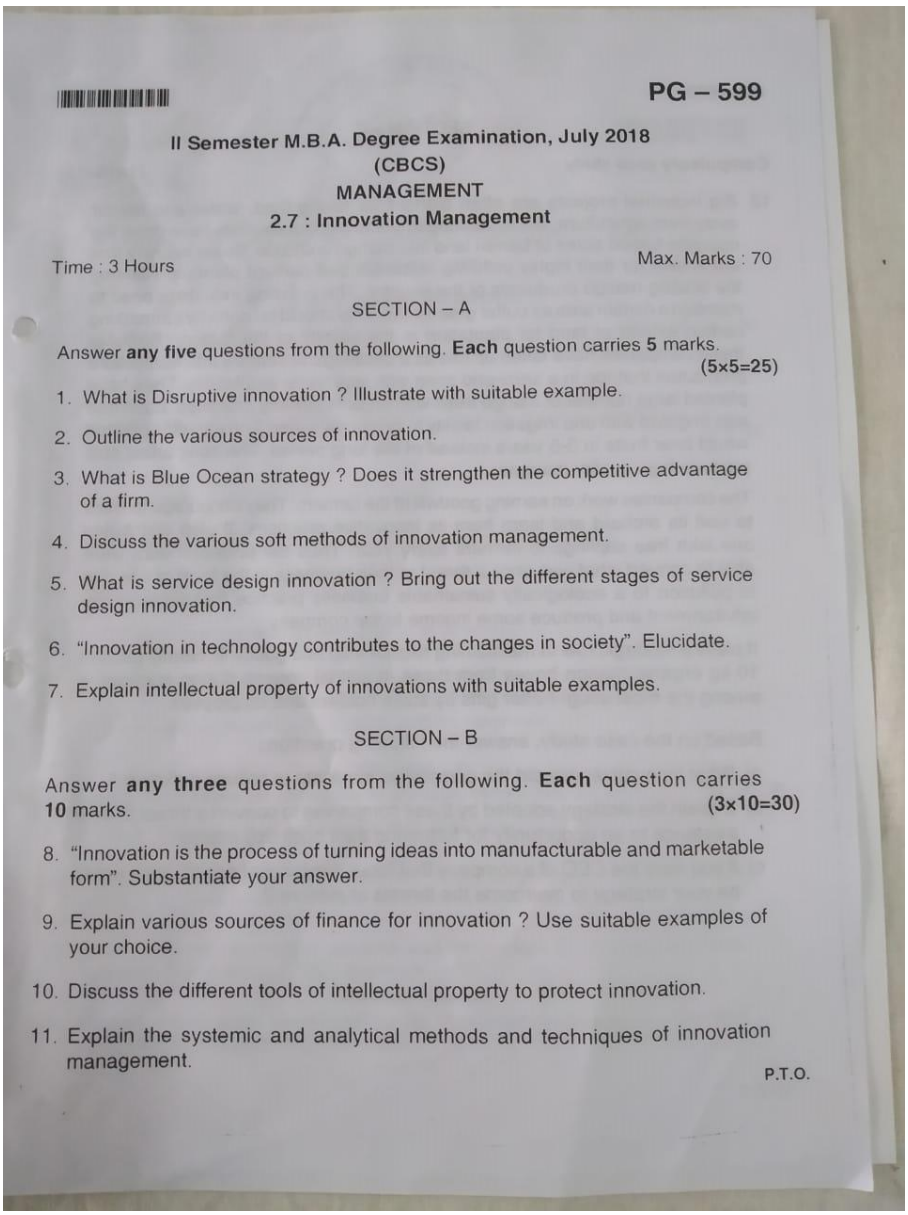
12. A service station in Bangalore used to give customer-friendly services to its users. They further gave services like washing car windows, checking pressure in the tyres and checking the oil etc.
Other service stations nearby incorporated services like : popular fast food restaurants, credit card facility, selling of car accessories and some facilities customers like so much. This way they have captured 30% of the customers of other service station noted above.

Questions :

1. Being an innovation expert, what changes you would suggest to compete with other service stations ?

2. Bringing back the customers already left is a challenge to you; how innovative will you be to do so.

- o 0 o -



PG – 599

II Semester M.B.A. Degree Examination, July 2018
(CBCS)
MANAGEMENT
2.7 : Innovation Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** questions from the following. **Each** question carries **5** marks. **(5×5=25)**

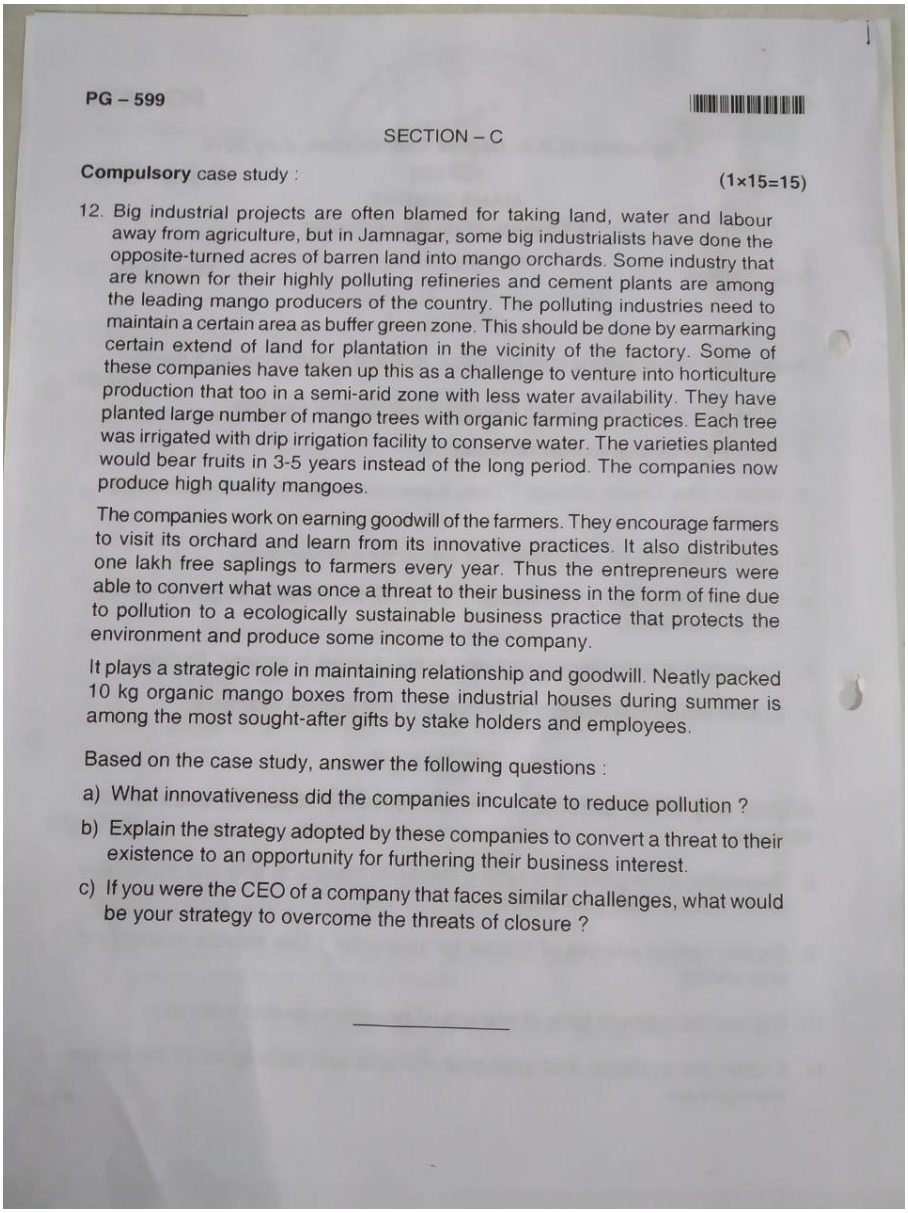
1. What is Disruptive innovation ? Illustrate with suitable example.
2. Outline the various sources of innovation.
3. What is Blue Ocean strategy ? Does it strengthen the competitive advantage of a firm.
4. Discuss the various soft methods of innovation management.
5. What is service design innovation ? Bring out the different stages of service design innovation.
6. "Innovation in technology contributes to the changes in society". Elucidate.
7. Explain intellectual property of innovations with suitable examples.

SECTION – B

Answer **any three** questions from the following. **Each** question carries **10** marks. **(3×10=30)**

8. "Innovation is the process of turning ideas into manufacturable and marketable form". Substantiate your answer.
9. Explain various sources of finance for innovation ? Use suitable examples of your choice.
10. Discuss the different tools of intellectual property to protect innovation.
11. Explain the systemic and analytical methods and techniques of innovation management.

P.T.O.



PG – 599

SECTION – C

Compulsory case study : (1×15=15)

12. Big industrial projects are often blamed for taking land, water and labour away from agriculture, but in Jamnagar, some big industrialists have done the opposite-turned acres of barren land into mango orchards. Some industry that are known for their highly polluting refineries and cement plants are among the leading mango producers of the country. The polluting industries need to maintain a certain area as buffer green zone. This should be done by earmarking certain extend of land for plantation in the vicinity of the factory. Some of these companies have taken up this as a challenge to venture into horticulture production that too in a semi-arid zone with less water availability. They have planted large number of mango trees with organic farming practices. Each tree was irrigated with drip irrigation facility to conserve water. The varieties planted would bear fruits in 3-5 years instead of the long period. The companies now produce high quality mangoes.

The companies work on earning goodwill of the farmers. They encourage farmers to visit its orchard and learn from its innovative practices. It also distributes one lakh free saplings to farmers every year. Thus the entrepreneurs were able to convert what was once a threat to their business in the form of fine due to pollution to a ecologically sustainable business practice that protects the environment and produce some income to the company.

It plays a strategic role in maintaining relationship and goodwill. Neatly packed 10 kg organic mango boxes from these industrial houses during summer is among the most sought-after gifts by stake holders and employees.

Based on the case study, answer the following questions :

a) What innovativeness did the companies inculcate to reduce pollution ?

b) Explain the strategy adopted by these companies to convert a threat to their existence to an opportunity for furthering their business interest.

c) If you were the CEO of a company that faces similar challenges, what would be your strategy to overcome the threats of closure ?

PG – 924
LIBRARY

Second Semester M.B.A. Degree Examination, July 2016
(CBCS)
MANAGEMENT
2.7 : Innovation Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following questions. **Each** question carries **five** marks. **(5×5=25)**

1. What is Brainstorming ? State its benefits.
2. Distinguish between radical innovation and incremental innovation. Give suitable examples to support your answer.
3. Write a note on push and pull approach.
4. Discuss the organisational aspects of innovation.
5. What is lateral thinking ? How is it different from conventional thinking ?
6. What are the sources of funding for innovation ?
7. Explain Docherty's innovation mindset adoption curve.

SECTION – B

Answer **any three** questions. **Each** question carries **ten** marks. **(3×10=30)**

8. Explain different sources of innovation.
9. Briefly describe the factors influencing the economic effectiveness of innovations.
10. Discuss the types of product innovations with examples.
11. Explain the various creative approaches in innovation.

P.T.O.

PG – 924

SECTION – C

Compulsory Section : (1×15=15)

Case Study :

12. Cafe coffee day is owned by the ABCTCL, which is the largest producer of Arabica coffee in Asia. Started in 1996 by VG Siddarth, CCD pioneered the cafe concept in India. By 2000, the company had just 14 outlets in six cities. Then the company started on a massive expansion program that has seen it set up nearly 1000 outlets in India in ten years. It also has shops in Vienna and Karachi and has plans to expand to other overseas destinations.

i) Brand experience : CCD made coffee drinking popular among Indian youth by offering a brand experience environment and other value additions. This meant that customers were willing to pay much higher for a cup of coffee.

ii) Reinforcing brand with cluster approach : CCD created entry barriers by opening multiple outlets within short distance of each other in major cities.

iii) Multiple formats : Cafe's – high street cafes, garden cafes, Mall cafes and highway cafes etc.

iv) Company owned franchisee : All the outlets are company owned. While this makes it more expensive to run, it ensured that there was no brand dilution.

v) Vertical integration : Integrating value chain, 'from bean to the cup', ABCTCL was able to reduce cost, assure adequate supply demand and gain economies of operation.

Questions :

a) What are the various innovative strategies adopted by cafe coffee day to become a trusted brand in food services in India ?

b) How does an organization ideate future innovations ?

c) Having expanded largely, what would be the challenges CCD would have to face to retain its market share ?

ST. JOHN'S COLLEGE LIBRARY BANGALORE-560 083

PG – 995

II Semester M.B.A. Degree Examination, June/July 2015
(CBCS Scheme)
Management
2.7 : INNOVATION MANAGEMENT

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer **any five** of the following. **Each** question carries **five** marks. The answer must **not** exceed **250** words. **(5×5=25)**

1. 'Jugaad Innovation' is characteristic of Indian conditions'. Discuss.
2. 'Invention and Innovation are the two sides of the same coin of an idea'. Bring out your answer.
3. Differentiate 'Push' and 'Pull' approaches to innovation.
4. Mention the organizational aspects of innovation.
5. How do innovation platforms contribute to innovation in organizations ?
6. What kind of competitive advantage comes from innovative ideas regarding new products in an organization ?
7. Suggest few innovative ideas for reducing traffic congestion in Bangalore city.

SECTION – B

Answer **any three** of the following. **Each** question carries **ten** marks. The answer must **not** exceed **500** words. **(3×10=30)**

8. Bring out the two sources of Innovation financing. Which do you prefer and why ?
9. Analyze the historic evolution of Innovation.
10. What factors influence the economic effectiveness of Innovation ?
11. Briefly explain few innovations introduced by Indian organizations in the recent times. Comment on their effectiveness.

P.T.O.

PG – 995

SECTION – C

12. This is a **compulsory** case study that carries **fifteen** marks. (1×15=15)

Gandhian model of innovation

After the 2008 economic recession, innovation has attracted a greater deal of attention from top managements. Traditional innovation models that were based on affluence and abundance are being questioned. As customers are demanding greater value from products and services, there is a need for driving resource optimization and cost efficiencies like never before.

Skilled talent is available in abundance in an emerging economy like India. Penetration of the rural market in India has been considered a viable option for growing the business. Thus, the constraints in developing countries are being looked at as opportunities and this awareness is driving entrepreneurship in India.

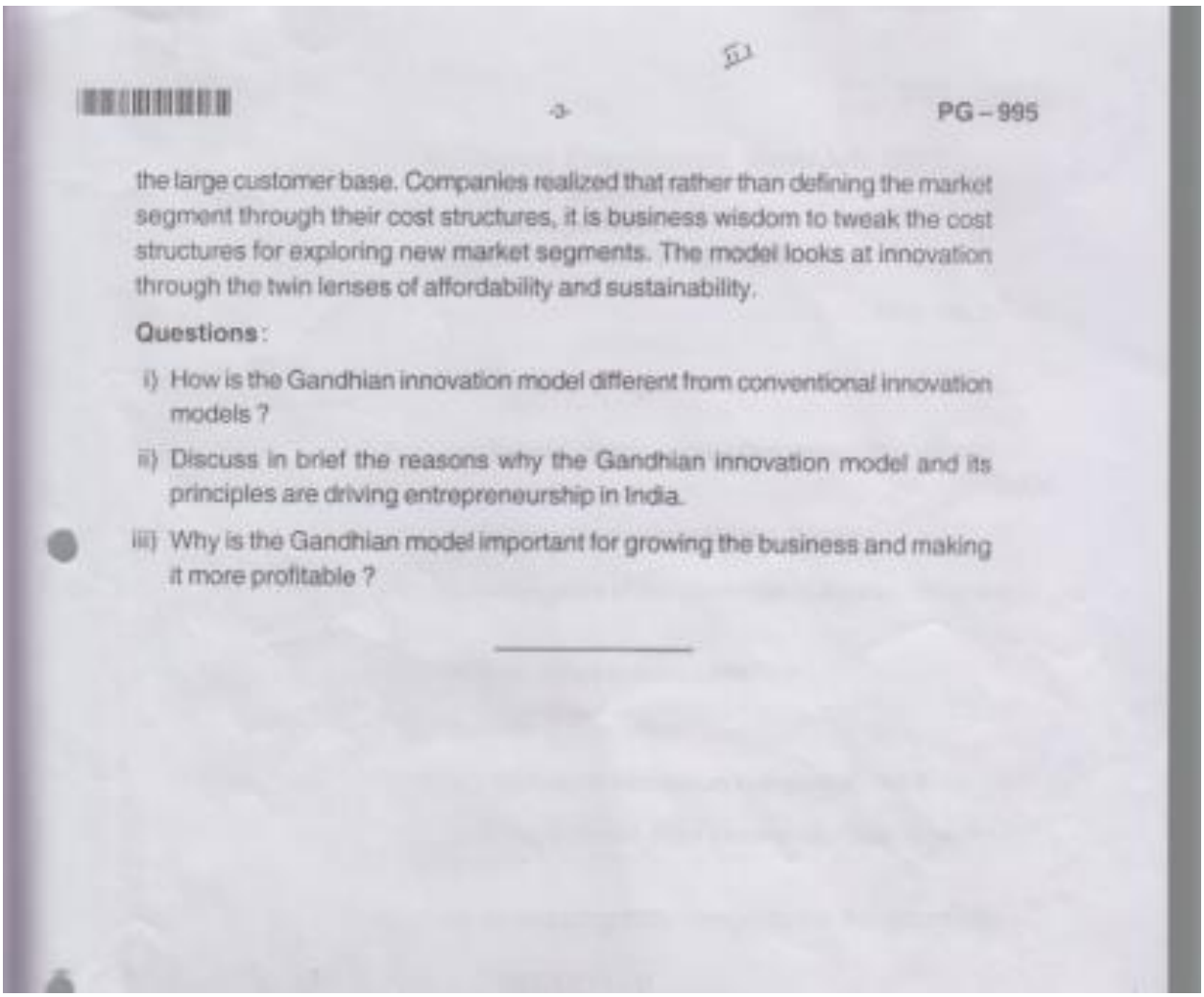
CK Prahlad and Dr. Mashelkar have proposed the Gandhian model of innovation. In the Gandhian model, innovation efforts are directed towards making affordable products that can reach out to the common man. The authors propose three kinds of innovation.

The first type of innovation is one that changes business dynamics. The second type involves synthesizing technologies. The third type of innovation is aimed at creating new technologies.

Bharti Airtel has been quoted as the example of an organization that changed its premium pricing strategy to one based on gross profit. This enabled the company to expand its market to cover the entire Indian population. Bharti outsourced non-core functions, entered into innovative contractual agreements with service providers and used distribution channels of consumer goods companies. It collaborated with competitors to share infrastructure.

Lupin Labs collaborated with a Siddha practitioner to develop a drug for psoriasis, achieved success and eventually managed government funding for its project to launch an effective and cheaper drug for psoriasis.

Indian companies have been forced to relook at the price-performance equation because catering only to a niche consumer base using premium prices does not result in growth of business. Gandhian innovation became a model to serve



-3- PG – 995

the large customer base. Companies realized that rather than defining the market segment through their cost structures, it is business wisdom to tweak the cost structures for exploring new market segments. The model looks at innovation through the twin lenses of affordability and sustainability.

Questions:

i) How is the Gandhian innovation model different from conventional innovation models ?

ii) Discuss in brief the reasons why the Gandhian innovation model and its principles are driving entrepreneurship in India.

iii) Why is the Gandhian model important for growing the business and making it more profitable ?

****