

Sem - V
Regular Exam

Time: 3 Hours

Marks - 100

- Instructions: 1) All questions are compulsory having internal option
2) Figures to the right indicate full marks.

Q.1A) Choose the correct answer from the option given below (Any Ten)

(10)

1. The _____ concept of marketing involves the effective use of aggressive advertising techniques for a product.
a) product concept
b) selling concept
c) exchange concept
d) production concept
2. _____ is the purpose of data warehousing in data mining Process.
a) Data storage
b) Data analysis
c) Data visualization
d) Data integration
3. _____ is an element of Sociographic Segmentation.
a) Age
b) Culture
c) Usage rate
d) lifestyle
4. _____ refers to the value of a brand in the market.
a) Brand image
b) Brand positioning
c) Brand Equity
d) Brand service
5. _____ means covering or wrapping of the product.
a) Branding
b) Packaging
c) Labelling
d) Pricing
6. _____ is the pricing strategy that involves setting prices low to attract customers.
a) Penetration pricing
b) Skimming pricing
c) Bundle pricing
d) Premium pricing.
7. _____ marketing is also called Network marketing.
a) Vertical
b) Horizontal
c) Multi-channel
d) Multi-level
8. _____ is not an important element of Integrated Marketing Communication.
a) Advertising
b) Public Relation
c) Sponsorship
d) Logistics
9. _____ is known as face-to-face selling.
a) Advertising
b) Personal Selling
c) Prospecting
d) Online Selling
10. The Market Challenger adopts strategy to attack _____.
a) Market Leader
b) Market Follower
c) Market Nicher
d) Market Performer
11. _____ marketing means marketing of eco-friendly products.
a) Local
b) Rural
c) Green
d) Digital
12. _____ skills are also called Inter-personal skills required by marketing manager.
a) Presentation
b) Decision-making
c) Human
d) Persuasion

Q.1 B) State whether the following statements are True or False (Any Ten) (10)

1. Product development involves identifying customer needs.
2. MIS is not susceptible to data quality issues.
3. Cultural background does not affect consumer behavior.
4. Brand loyalty is a factor in brand equity.
5. Packaging is concerned with safety of product.
6. Skimming pricing is used for innovative products.
7. Supply Chain Management is an element of Logistics.
8. Sponsorships help in brand visibility and corporate image.
9. Sales management is responsible for setting sales quotas.
10. Sharing customer data without consent or transparency is unethical.
11. Green marketing gives competitive advantage to the firm.
12. Erroneous product design leads to brand failure.

Q. 2 Answer any two of the following: (15)

- a) What is Marketing? Discuss the importance of marketing.
- b) Explain the steps in the process of Marketing Research.
- c) Describe the techniques of Customer Relationship Management.

Q. 3 Answer any two of the following: (15)

- a) Explain the various Product Decision Areas.
- b) What is Product Positioning? Explain its Strategies.
- c) Explain the objectives of Pricing.

Q. 4 Answer any two of the following: (15)

- a) Describe the factors influencing physical distribution of product.
- b) What is Promotion? Discuss the elements of promotion Mix.
- c) Discuss the emerging trends in Selling.

Q. 5 Answer any two of the following: (15)

- a) Explain the general role of Consumer Organizations.
- b) What is Digital Marketing? Explain the trends in digital marketing.
- c) Discuss the factors responsible for the success of a brand in India with suitable examples.

Q.6 Write Short Notes on (Any four) (20)

- a) Strategic Marketing
- b) Market targeting
- c) Branding
- d) Supply Chain Management
- e) Rural marketing
- f) Personal selling

(2½ Hours)

[Total Marks: 75]

Note: 1) All questions carry equal marks and are compulsory.

2) Figures to the right indicate maximum marks for a question

- Q.1 A Attempt any two sub-questions from (a), (b), (c) in MS-EXCEL (True/False) 02**
- (a) The cell in which data is entered is called the active cell.
 (b) A workbook can contain worksheets and chart sheets.
 (c) A spreadsheet consists of a grid made of rows and columns.
- B Attempt any two sub-questions from (d), (e), (f) in MySQL (Multiple Choice) 02**
- (d) To indicate that there should be 5 integer and 2 decimal position we use _____.
 A) decimal(5,2) B) decimal(7,2) C) decimal(9,2) D) decimal(2,5)
- (e) To view the names of the databases in MySQL we use _____.
 A) Show Tables B) View Databases C) Show Database D) Show Databases
- (f) The Key which helps to uniquely identify each row of the table is called _____ key.
 A) Primary B) Foreign C) Secondary D) Main
- C Attempt any six sub-questions from (g), (h), (i), (j), (k), (l), (m), (n), (o) in Data Communications, Networking and Internet. (True/False). 06**
- (g) Channel refers to the medium between the sender and receiver.
 (h) In a data communication process, the sending device can only be a computer.
 (i) A group of 4 bits is called a byte.
 (j) Banking system and ticket reservation system are examples of distributed processing.
 (k) Core banking system is an application that uses WAN.
 (l) Bus topology is suitable for a local area network.
 (m) A proxy server is used to share an Internet connection.
 (n) Different documents can be linked on the Internet by using the hyperlink feature.
 (o) The Internet is controlled by a government agency of the United States.
- D Attempt any five sub-questions from (p), (q), (r), (s), (t), (u), (v), (w) in Data Communications, Networking and Internet. (Multiple Choice) 05**
- (p) The transmission medium that carries the message is referred to as the _____.
 A) protocol B) gateway C) communication channel D) receiver
- (q) The extended ASCII code system uses _____ bits for data representation.
 A) 7 B) 8 C) 16 D) 32
- (r) Which of the following protocols is used for email _____
 A) SMTP B) FTP C) http D) both (a) and (c)
- (s) Which of the following is used to segment a large network into two smaller networks _____
 A) Hub B) Bridge C) Router D) Modem
- (t) Which of these domains is restricted to qualified organizations _____
 A) com B) org C) net D) edu
- (u) To match all the words in your search, the Boolean _____ operator should be used.
 A) AND B) OR C) NOT D) BOTH

- (v) What is the full form of URL?
 A) Uniform Resource Library B) United Resource Locator
 C) Universal Resource Locator D) Uniform Resource Locator
- (w) Which of these is a meta search engine?
 A) Google B) Yahoo C) AltaVista D) Dogpile

Q.2 A **Answer any one sub-question from (a),(b) in Data Communications, Networking and Internet** **08**

(a) Differentiate between LAN and WAN
 (b) Write and explain components of data communication.

B **Answer any one sub-question from (c),(d) in Data Communications, Networking and Internet** **07**

(c) Explain following topologies: 1. Ring 2. Bus
 (d) Write advantages and disadvantages of twisted pair cable.

Q.3 A **Answer any one sub-question from (a) , (b) in MySQL** **08**

(a) Write MySQL statement to create a table called HOTEL having the following columns Registration Number (RNO, integer, Primary Key), Room Type (RTYPE, character with variable width 15 columns, default value NORMAL), Check in Date (SDATE, Date) and Tariff (TARIFF,width 8 with 2 decimals, should not be negative).

(b) Write MySQL statement to create a table called LIBRARY containing columns Accession Number (ASNUM, integer, should be increased by 1 automatically), Book Name (NAME, character with variable width 25 columns, should not be empty), Author Name (AUTHOR, character with width 20 columns), Price of the Book (NUM, 7 integer and 2 decimals) and Date of Purchase (PURDT, Date).

Q.3 B **Answer any one sub-question from (c) , (d) in MySQL** **07**

(c) There exist a table RTRAVELS containing columns Travellers Number(TNO, integer), Name (TNAME, character), Destination City (CITY,Character 10), Date of Travel (DOT, date) and Fare (FARE, integer). Write MySQL statements for the following.

- i. Display the structure of the table RTRAVELS.
 - ii. Enter the following one row of data in this table.
- | TNO | TNAME | CITY | DOT | FARE |
|-----|-------|-----------|------------|------|
| 101 | AKASH | HYDERABAD | 2024-09-25 | 8000 |
- iii. Add a new column Age (AGE, integer) at the beginning of the table RTRAVELS.
 - iv. Delete the rows where destination city is PUNE.
 - v. Change the Date of travel of traveller with name "SAMEER" to May
 - vi. Change the size of the column TName to 25 columns.
 - vii. Delete the table RTRAVELS.

- (d) Explain the following built-in functions in MySQL
 1) LEFT() 2) TRIM() 3) MONTH() 4) LENGTH()
 5) MOD() 6) POW() 7) NOW()

Q.4 A

Answer any one sub-question from (a) , (b) in MySQL

08

- (a) There exists Table name: Employee details (EMP_DETAILS) columns in the table: Employee no.(Primary key)((emp_no), first name (fname), Surname (Surname), middle name (Mname), age(Age), date of birth(DOB), gender(Gender), name of the department(Dept), designation(Desi), and salary(Sal).
 Write MySQL statements for the following.
 i) To display Employee no., first name, surname, last name and salary. Use the heading as Emp. No., Name and Salary. Use concat to display name as one entity combining first name, surname, last name.
 ii) To display Employee no., first name, surname, last name whose first name begins with the letter S.
 iii) To display Employee no., first name, surname, last name and age in the order of Surname.
 iv) To display Employee no., first name, surname, last name and date of birth of those who are born in the month of June in the chronological order of date of birth.
- (b) There exist a table book containing the columns account number(ACNNo), book name(Bname), Number of copies(NOC) , Value of the book(B_rate) and date of Publication(Dof_P).
 Write the my SQL statement for the following
 i) Display all the rows from the following table book.
 ii) Display all the book details in alphabetical orders of book name
 iii) Display the account number, book name and date of Publication from the table.
 iv) Display Minimum number of books, Maximum number of books, Average of book as per book name.

Q.4 B

Answer any one sub-question from (c) , (d) in MySQL

07

- (c) There exists a table Flipcart having the columns Purchaser's Number (PNO, integer), Purchaser's Name (PNAME, character), Receipt Number (RNO, integer, primary key), Total Cost (TCOST, integer) and Date of Purchase (PURDT, date).
 Write MySQL statements for the following.
 i) Display Purchaser's name, Receipt Number and Total Cost from this table where Date of Purchase is January 1, 2018.
 ii) Display Purchaser's Name and Total Cost where Total Cost is equal to the maximum Total Cost.
 iii) Display Date of Purchase, maximum and minimum Total Cost grouped by Date of Purchase.
 iv) Display Purchaser's Name, Total Cost and "Discount" as 15% of Total Cost.

- (d) There exists a table Eclass containing columns Roll Number (RNO, integer, primary key), Name (SNAME, character), Age (AGE, integer), Fees (FEES, decimal (8, 2)). There exists another table PER containing columns Roll Number (RNO, integer, primary key), Total marks (TOTAL, integer). Write MySQL statements for the following.
- Display Name, Age and Total marks of a student with Roll Number 200 using both the tables.
 - Display Name, Age and Total marks of students getting Total Marks more than or equal to 600 using both the tables.
 - Display Roll number and Total marks of students who have scored more than average Total Marks using table PER.
 - Display Name and Fees of students who pay maximum Fees using table Eclass.

Q.5 A

- (a) Attempt any ONE sub-question from (a), (b) in MS Excel
The following data has been entered in a worksheet.

	A	B	C	D	E	F
1	PRODUCT	COST PRICE	QTY	TOTAL COST	PROFIT AMT	SELLING PRICE
2	Desktop	6000	10			
3	Hard Disk	8500	2			
4	Keyboard	400	15			
5	Scanner	8050	14			
6	Printer	12500	6			
7						
8	PROFIT	5%				

Write steps to find the Total Cost, Profit Amount and Selling Price in columns D, E and F respectively.

- (b) For the following spreadsheet write the steps to -
a) Sort the data in the ascending order of Batsman
b) Calculate subtotal of runs scored by each team.

	A	B	C	D
1	SR NO	BATSMAN	TEAMS	RUNS SCORED
2	1	DARSHIT	MI	54
3	2	AMAN	GT	87
4	3	MALHAR	CS	63
5	4	KRISH	RR	80
6	5	SRIKANT	RR	72
7	6	JOHN	MI	66
8	7	AKBAR	MI	48

B Attempt any ONE sub-question from (c), (d) in MS EXCEL

(c) Answer the following using spreadsheet giving the marks scored by students in 5 class tests

	A	B	C	D	E	F	G	H
1	NAME	Test 1	Test 2	Test 3	Test 4	Test 5	TOTAL	AVG
2	Sachin	76	78	98	54	115		
3	Ganga	45	56	54	45	12		
4	Kala	36	85	56	89	65		
5	David	59	45	54	25	78		
6	Kumar	45	25	12	14	58		
7								

Write the steps to

1. Calculate the Total and Average score in column G and H.
2. Test-wise calculate the Highest and the Lowest score in row 8 and 9.

(d) Explain the following built-in functions in MS-EXCEL

- | | | | |
|-------------|---------------|-----------|-----------|
| 1. INT () | 2. AVERAGE () | 3. FV () | 4. MIN () |
| 5. ROUND () | 6. MOD () | 7. SQRT() | |

Sem - V

25/10/2020

Time: 3 Hrs.

Regular Exam

Marks 100

Note:

1. All Questions are compulsory.
2. Figures to the right indicate full marks allotted to the questions.
3. Working Notes wherever necessary should form a part of your answer.
4. Calculate figures up to the two decimal points wherever required.

Q1 A State whether the following statements are True or False.

(10)

- 1) Lubricants are direct materials
- 2) Packing charges are selling and distribution cost.
- 3) Prime cost includes factory overheads.
- 4) Carriage on material increases cost of materials.
- 5) Labour Turnover may be caused due to low wages.
- 6) Time Rate Plan motivates the efficient workers.
- 7) Factory cost includes Prime cost-plus office overheads.
- 8) Inventory valuation is done at market value.
- 9) Carriage outwards should be considered selling overheads.
- 10) Cost of rectification of defectives is a part of administration overheads.
- 11) Interest received on Bank Deposit is purely financial in nature.
- 12) Time wage is guaranteed under Rowan premium plan.

Q1 B Select the most appropriate option and rewrite the full sentence.

(10)

1] The costing which determines cost after it has been actually incurred is

- i) estimated ii) standard iii) historical iv) marginal

2] Interest on capital is

- i) imputed cost ii) sunk cost iii) direct cost iv) indirect cost

3] Overheads which are incurred in connection with factory are

- i) factory overheads ii) office overheads iii) selling overheads iv) prime cost

4] The cost which is directly chargeable to the product is

- i) indirect cost ii) direct cost iii) overheads iv) period cost

5] Royalti paid on use of patents is called as:

- i) Direct expenses ii) Indirect expenses iii) Production expenses iv) Distribution expenses

6] If production increases Variable cost per unit remains

- i) constant ii) flexible iii) Increase iv) Decrease

7] Cost which is unaffected by the change in outputs is called as

- i) Fixed cost ii) Variable Cost iii) Period cost iv) Production cost

8] Bin Card is

- i) a inspection note ii) a continuous record of stock stored
iii) a statement of delivery of material iv) a statement of issue of material

- 9] A store ledger is
- i) Evidence of delivery of materials
 ii) a ledger of the supplier
 iii) a ledger which shows movement of each item of materials
 iv) a ledger of the Distributer
- 10] The process of re-distribution of overheads of support department to production department is called as:
- i) Secondary distribution
 ii) Primary distribution
 iii) Repeat distribution
 iv) Selling and Distribution overheads
- 11] Drawing office salaries is a:
- i) Factory overheads
 ii) Office overheads
 iii) Selling overheads
 iv) Distribution overheads
- 12] In reconciliation statement depreciation under charged in cost account is
- i) Deducted in financial profit
 ii) Deducted in costing profit
 iii) Added in costing profit
 iv) Added to assets

Q.2.A.SSR Ltd. furnishes to you the following information for the year ended 31st March, 2023 :

Production and Sales	20,000 units	(20)
Sales	Rs. 80,00,000	
Direct Materials	Rs. 30,00,000	
Direct Wages	Rs. 10,00,000	
Direct Expenses	Rs. 5,00,000	
Factory Overheads	Rs. 7,50,000	
Administrative Overheads	Rs. 12,50,000	
Sales Overheads	Rs. 10,00,000	

Following changes are estimated in the subsequent year:

- (1) Production and sales activity will be increased by 25%.
- (2) Material rate will be increase by 20% .
- (3) Direct wages rate would be reduced by 10% due to automation.
- (4) Direct Expenses per unit will increase by 10%.
- (5) Factory Expenses will increase by 20% in total.
- (6) Total administrative overheads will be lower by 20%.
- (7) Sales overheads per unit would remain the same.
- (8) Sale would be 110% of cost.

Prepare a statement of cost for both the years ending 31st March, 2023 and 31st March, 2024 showing maximum possible details of cost.

OR

Q2.B.M/s. Naina Manufacturing Company manufactures two types of products viz. S and T. The information for the year ended on 31st March, 2024 is as under: (20)

Particulars	S (Rs.)	T (Rs.)
Direct material per unit	150	160
Direct labour per unit	80	70
Direct expenses per unit	50	90

Additional Information:

- (1) Factory expenses are charged at 25% of prime cost.
- (2) Office expenses are charged at 30% of works cost.

- (3) 3,000 units of product S were produced of which 2,500 units were sold and 6,000 units of product T were produced of which 5,400 units were sold.
- (4) Selling expenses are Rs.12 per unit for product S and Rs.20 per unit for product T.
- (5) Company charges a profit at 20% on sales for Product S & 25% on sales for Product T.
- Prepare a cost sheet showing the cost and profit in total as well as in per unit.

Q3.A. A steel manufacturing company uses steel sheets for the production and provides you the following details. (10)

- Maximum usage = 500kg per day
 Normal usage = 300 kg per day
 Minimum usage = 200 kg per day
 Maximum re-order period = 15 days
 Minimum re-order period = 5 days
 Average reorder period = 10 days
 Re-order quantity = 3000 kg

Calculate re-order level, maximum level, minimum level and average level.

Q3.B. From the following particulars, prepare Reconciliation Statement and Ascertain Costing Profit/Loss. Net Profit as per financial P&L A/c ₹20,400, Opening Stock was overvalued by ₹1500 in Cost Accounts as compared to financial accounts. Office overheads charged in Financial Books ₹15,000 but recovered in Cost ₹20,000 (10)

Loss by fire ₹600.

Goodwill written off recorded in financial ₹5,000

Closing Stock as per financial books ₹4,000

Whereas in Cost books it was ₹5,400.

OR

Q3.C. From the following details find the amount of closing stock under weighted average method for the month of September 2024 (10)

1.9.24 Opening Stock: 250 units at ₹10 each			
Purchases		Issues	
5.9.24	150 units at ₹12 each	10.9.24	120 units
15.9.24	100 units at ₹14 each	20.9.24	80 units
25.9.24	200 units at ₹16 each	30.9.24	150 units

Q3.D. From the following, prepare a statement of reconciliation and find-out profit/loss as per financial records. (10)

PARTICULARS	Rs
Profit as per Cost Records	1,87,000
Interest on Bank loan	1050
Provision for Income Tax	40,300
Loss on sale of Asset in Financial A/c	5,700
Interest received	8,750
Depreciation in Financial A/c	11,200
Depreciation in Cost A/c	12,500

Q4A. The following particulars apply to a particular job:

Standard production per hour: 15 units

Standard working hours: 16

Normal rate per hour: Rs.30

Geetha produced 180 units

Vineetha produced 216 units

Rakshitha produced 264 units

Calculate the wages of these workers under Differential Piece Rate System 80% of the piece rate when output is below standard & 120% above standard.

(10)

Q4.B. Calculate the machine hour rate for the following machine

(10)

Cost of machine	Rs	116000
Estimated scrap value	Rs	16000
Estimated working life	Hours	20000
Estimated maintenance cost during working life of machine	Rs	2400
Power used per machine per hour	Rs	1
Rent and Rates per month	Rs	3000
Normal Machine running hours during a month		180
Standing charges (other than rent and Rates) Per month	Rs	400

OR

Q4.C. Standard output per hour is 100 units. Actual output in a 40 hour week is 5,000 units. Wage rate is Rs.75 per hour. Calculate Total Earnings under:

(10)

- i. Time Rate
- ii. Piece Rate
- iii. Halsey Premium System
- iv. Rowan Premium System

Q4.D. From the following particulars given below, prepare a statement showing primary distribution of overheads:

(10)

		Production Departments			Service Departments	
		A	B	C	X	Y
Direct Materials	Rs	3000	2500	2000	1500	1000
Employees	Number	100	150	150	50	50
Factory Electricity	Kwh	8000	6000	6000	2000	3000
Light Points	Number	10	15	15	5	5
Assets Value	Rs	50000	30000	20000	10000	10000

Particulars	Rs
Stores Overheads	40000
Motive Power	150000
Electric Lighting	20000
Labour Welfare	300000
Depreciation	600000

Q5. Answer the following questions. (10 marks each)

- A. What are the objectives of cost accounting?
- B. Explain classification of overheads based on behavior of cost?

OR

Q5. Write short notes (Any four out of six).

(20)

- a) Cost ascertainment
- b) FIFO
- c) Gantt's Task
- d) Distinction between cost allocation and cost apportionment
- e) Prime cost
- f) Reconciliation of cost and financial accounts

Time: 3 Hours

Total Marks: 100

1. All Questions are compulsory subject to internal choice.
2. Exercise internal options wherever given.
3. Figures to the right represent full marks to the question.
4. All questions should be answered w.r.t assessment year 2024-25.
5. All workings shall form part of the main answer.
6. Use of simple calculator is allowed.

Q.1 (a) Choose the Most Appropriate Alternative and rewrite the Statements. (Any Ten) (10)

1. Mr. Devanampriya has started his business from 2 Sept, 2023 and does not have any other source of Income, his first previous year will start from

- (a) 1 April, 2022 (b) 2 September, 2023
(c) Any of the above (d) None of the above

2. Gratuity received by a government employee is _____

- (a) Fully exempted (b) Partly exempted
(c) Fully taxable (d) Exempted up to ₹.1,00,000

3. An individual is said to be resident in India if he stays for _____ days during the previous year

- (a) 180 (b) 182
(c) 183 (d) 184

4. Deduction U/S 80C is not available to _____

- (a) Individual (b) HUF
(c) Company (d) All of these

5. _____ is covered under section 80D of the Income Tax Act, 1961

- (a) Medical treatment of handicapped dependent
(b) Medical insurance premium
(c) Reimbursement of medical expenses
(d) Repayment of loan taken for higher education

6. Transfer of _____ assets will not be considered as capital gain

- (a) Diamond Jewellery (b) Gold deposit bonds
(c) Antique Paintings (d) Sculpture

7. Mr Maitreya paid to IES's Patkar Guruji Vidyalay, Dadar for his school going daughter: - tuition fees ₹.7,000 and school bus fees ₹.2,000. He is entitled to a deduction under section 80C equal to

- (a) ₹.2000 (b) ₹.7,000
(c) ₹.5,000 (d) ₹.9,000

8. Income Tax Act extends to _____

- (a) Whole of India (b) Whole of Maharashtra
(c) Maharashtra and Gujrat (d) Whole of India except Jammu and Kashmir

9. Remuneration Received by a partner from partnership firm is taxable under _____

- (a) Income from House Property (b) Income from Other Sources
(c) Capital Gain (d) Income from Business and Profession

10. Bonus to employee is taxable on _____ basis.

- (a) Accrual (b) Receipt
(c) Due (d) Open

11. Previous year means the _____ immediately preceding the Assessment year

- (a) Financial Year (b) Calendar Year
(c) Leap Year (d) Academic Year

12. If the house property is let out with fixed assets, will be chargeable under the head _____

- (a) Income from House Property (b) Income from Other Sources
(c) Capital Gain (d) Income from Business

Q.1 (b) State whether the following statements are True or False (any ten)

(10)

1. An association of person consist of individuals only.
2. Advance received against salary is not part of gross salary.
3. Gift received from mother is fully taxable.
4. Monthly Pension received by government employee is full exempt from tax.
5. The status of Indian origin individual is always a resident.
6. Wages and Salaries are taxable under the head income from salaries.
7. There are total Six heads of Income.
8. Section 80 U is applicable to residential individual.
9. Tata Power Limited is a partnership firm under the Income Tax Act.
10. Under Section 80CCC deduction available to HUF.
11. Municipal taxes paid by owner is allowed as deduction under the head Income from House Properties.
12. Zero Coupon Bonds held for 7 months is a short-term capital gain.

Q2. (a) Ms Daniella joined a company PDP Ltd. on 1st November 2023 and was paid the following emoluments and allowed perquisites as under:

(20)

Emoluments:

Basic Pay	-	₹.	70,000 per month
Dearness Allowance	-	₹.	10,000 per month
Bonus (Target Achiever)	-	₹.	2,00,000 per month

She could achieve target only for two months.

Perquisites:

- (1) Furnished accommodation owned by the employer and provided free of cost. Taxable value of the rent free furnished accommodation was ₹. 2,35,000.
- (2) Use of laptop for office use worth ₹. 23,800.

Before joining the PDP Ltd. she was a Central Government employee and retired on 30th June 2023. She was paid the following emoluments and perquisite by the Government.

Basic Salary	- ₹. 80,000 p.a.
Dearness Allowance	- ₹. 16,000 p.a.
Entertainment allowance since 1962	- ₹. 20,000 p.a.

From 1st July 2023 she receives the monthly pension of ₹. 29,000 from the Government. She received ₹. 20,00,000 as gratuity.

Apart from above she also earned following interests from her investments during the year:

1. Interest on Fixed Deposits: ₹. 3,18,000 (net TDS : ₹. 72,000)
2. Interest from Saving Bank account- ₹. 73,000
3. Interest from Sukanya Samriddhi Account ₹. 13,000
4. She also received ₹. 4,00,000 as share of profits from agricultural land in Raipur.

She paid ₹. 15,000 as Mediclaim premium amount for herself and 25,000 for her dependent father during the year 2023-24.

You are required to compute net taxable income for Ms Daniella for the previous year 2023-24 relevant to Assessment year 2024-25.

OR

Q2.(b) Mr. Sunder (disability 50%) is employed in Inder Pvt Ltd and receives the following emoluments during the previous year ending 31.3.2024 : (10)

Basic Pay	₹. 16,50,000 annually
Dearness allowance	₹. 3,50,000
Commission	₹. 3,00,000
Entertainment Allowance	₹. 1,00,000
Medical expenses reimbursed by the employer	₹. 45,000
Children education allowance received	₹. 30,000 for his only daughter.
Professional tax paid	₹. 2500
Mr. Sunder contributes	₹. 1,00,000 towards pension fund. He has no other income but received gift from mother ₹. 7,50,000.

You are required to compute net taxable income for Mr. Sunder for the previous year 2023-24 relevant to Assessment year 2024-25.

Q2.(c) Mr. Earth is working in ABC Ltd. and has given the details of his income for the previous year 2023-24. (10)

- Basic Salary received ₹. 1,05,000 per month
 - Dearness allowance (50% is for retirement benefits) ₹. 60,000 per month
 - Commission as a percentage of turnover 5%
- Turnover during the year ₹. 5,00,00,000

His own contribution in the recognized provident fund ₹. 2,00,000

Employer's contribution to recognized provident fund 20% of his basic salary and dearness Allowance.

Interest accrued in the recognized provident fund @ 13% p.a. ₹. 1,30,000.

Interest received from saving bank account ₹. 50,000 and fixed deposit ₹. 26,800.

You are required to compute net taxable income for Mr Earth for the previous year 2023-24 relevant to Assessment year 2024-25.

Q3 (a) Following is the Profit & Loss Account of "M/s Global Financial Services" owned by Mr. Nimesh Waja, for the year ended 31st March, 2024. (20)

Profit & Loss Account for the Year Ended 31st March, 2024

Particulars	₹	Particulars	₹
To Salaries	2,25,000	By Gross Profit	9,85,000
To Travelling Expenses	40,000	By Saving Bank Interest	5,700
To Office Expenses	30,000	By Interest on Time Deposit	23,000
To Profession Tax	2,500	By Income Tax Refund.	10,000
To Staff Welfare Expenses	44,000		
To Printing & Stationery	12,850		
To Depreciation	36,000		
To Professional Fees	50,000		
To Drawings	9,000		
To Interest on Personal loan	45,000		
To GST Paid	36,000		
To Net Profit	4,93,350		
Total	10,23,700	Total	10,23,700

Additional Information:

- 1) Depreciation as per Income Tax Rules is ₹ 25,000.
- 2) 30% of travelling expenses is for personal purpose.
- 3) He paid ₹.65,000 towards school fees for his son.
- 4) He Paid ₹.1,00,000 for Life Insurance Premium.
- 5) Salary includes ₹. 1,20,000 (₹10,000 per month) paid to his wife Mrs. Waja who is B. Com Graduate and write the accounts for his business.

Compute the Taxable Income of Mr. Nimesh Waja for the assessment year 2023-24.

OR

Q3 (b) Following is the Profit & Loss Account of "M/s R&D Associates" owned by Mrs. Richa Shah, for the year ended 31st March, 2024. (20)

Profit & Loss Account for the Year Ended 31st March, 2024

Particulars	₹	Particulars	₹
To Salaries	2,65,000	By Gross Profit	8,85,000
To Electricity Expenses	30,700	By Rent Received from Let-out House Property	3,84,000
To Municipal Tax	12,000	By Unrealized Rent Recovered for F.Y. 2022-23	30,000
To Profession Tax	2,500		
To Income Tax	15,000		
To Conveyance Expenses	35,900		
To Depreciation	22,100		
To Repairs & Maintenance	30,000		
To Legal Expenses	15,000		
To Interest on Housing Loan	1,20,000		
To Furniture Purchase	42,000		
To Net Profit	7,08,800		
Total	12,99,000	Total	12,99,000

Additional Information:

- 1) Municipal valuation of House Property is ₹.3,55,000.
- 2) Repairs & Maintenance include ₹.12,000 for renovation for house property.
- 3) She invested ₹.1,20,000 in Pension Fund of LIC for herself.
- 4) Salaries includes ₹.15,000 paid in cash.
- 5) She paid Interest on Education loan of ₹.50,000/- for herself.

Compute the Taxable Income of Mrs. Richa Shah for the assessment year 2024-25.

Q.4 (a) Mr. Rahul, who is born and brought up in India and an Indian Citizen, went for further studies to U.S.A. on 1st March, 2020 and came back to India on 1st October, 2023 and since then he is in India. Determine his residential status for the assessment year 2024-25 giving explanation for your answer. (10)

Q.4 (b) Mr. Nilesh provides the following particulars of assets transferred by him during the previous year ended 31st March, 2024. You are required to compute his Income from Capital Gains chargeable to tax for Assessment Year 2024-25.

A residential house in Jaipur was purchased on 24th December, 1996 at a cost of ₹. 12,00,000. Fair market value of the residential house on 1st April, 2001 was ₹.20,00,000.

The cost of improvement incurred by him was as follows: (10)

Financial Year	Amount
1998-1999	₹.2,50,000
2006-2007	₹.3,66,000
2010-2011	₹.3,75,750
2013-2014	₹.4,40,000

He sold the above house on 15th March, 2024 for ₹.1,80,00,000. He incurred transfer expenses of ₹.2,00,000 on the sale transaction.

He purchased a new residential house in Udaipur for ₹.43,00,000 on 25th March, 2024.

He purchased 3 years' bonds issued by Rural Electrification Corporation (REC) for ₹.15,00,000 on 26th March, 2024.

Cost Inflation Index are as follows:

Financial Year	Cost Inflation Index
2001-2002	100
2006-2007	122
2010-2011	167
2013-2014	220
2023-2024	348

OR

Q4 (c) Miss Ruchita furnishes the following particulars for the previous year ending 31-03-2024 and requests you to compute the taxable capital gain for assessment year 2024-25. (10)

(a) She had a Residential house purchased on 01-04-2000 for ₹.4,00,000. (FMV as on 1.4.2001 is ₹. 500,000)

(b) In the year 2012-13 further construction and improvement cost was incurred ₹.60,000

(c) On 10-05-2023 the house was sold for ₹. 1,50,00,000.

Expenditure in connection with the transfer ₹.5,000

(d) On 13-12-2023 she purchased new residential house for ₹.80,00,000.

(e) She deposited ₹. 55,00,000 in eligible bonds issued by Rural Electrification Corporation Limited (RCEL) on 20-09-2023.

(f) Cost inflation index (CII) for financial year are as under:

Financial Year	CII
2001-02	100
2012-13	200
2023-24	348

Q4 (d) Mr. Surendra has earned the following income during the previous year ended on 31st March, 2024. (10)

Particular	Amount ₹.
1. Rent from House in Pune, received in Japan	6,00,000
2. Income from business in Spain, being controlled from India	4,00,000
3. Salary earned and received in Bangladesh	3,00,000
4. Professional fees received in India	2,00,000
5. Interest received from State Bank of India, in Nagpur	1,00,000
6. Past untaxed profit earned outside India, brought to India	1,50,000
7. Agriculture income earned in India received in Sri Lanka	1,00,000
8. Dividend from an American company received in Rome	1,50,000

Compute his total income for the assessment year 2024-25 assuming as follows:

- (a) He is Resident and Ordinarily Resident.
 (b) He is Resident but not Ordinarily Resident.

Q.5 a) What are deductions under Section 80TTA and 80DD of the Income Tax Act? (10)

Q.5 b) What is income from salary and what are its components? (10)

OR

Q.5 Short notes: (Attempt any four) (20)

- Income from other sources and give examples
- Deemed to be let out property
- Interest on loan for higher education (Section 80E)
- Non-taxable Perquisites
- Scope of total income for Resident and Ordinary Resident
- Heads of Income

Sem. V
Regular ExamOct/Nov
2024

[Time: 3 Hours]

[Total Marks: 100]

Please check whether you have got the right question paper.

N.B.: 1. All questions are compulsory.

2. Figures to the right indicate full marks.

Q.1 A) Select the correct answer and rewrite the statements (any TEN) 10

1. Privatization refers to _____ in the context of the NEP.
 - a) Transfer of ownership from the government to the private sector
 - b) Restriction on private sector participation
 - c) Introduction of new public sector enterprises
 - d) Increasing government control over industries
2. _____ is not a goal under the Sustainable Development Goals.
 - a) No Poverty
 - b) Zero Hunger
 - c) Universal Basic Income
 - d) Quality education
3. Which scheme provides cooked meals to children in government and government-aided schools?
 - a) Sarva Shiksha Abhiyan
 - b) National Programme for Mid- day meals
 - c) Rashtriya Madhyamik Shiksha Abhiyan
 - d) Model Schools scheme
4. It is necessary to provide a remunerative price for farmers to _____.
 - a) Discourage growth in agriculture
 - b) Promote industrialization
 - c) Encourage reinvestment in agriculture
 - d) Increase Government's revenue
5. The purpose of maintaining buffer stock of food grains is to _____.
 - a) Increase the price of food-grains
 - b) Reduce the cost of production
 - c) Ensure availability during shortages
 - d) Export food grains
6. _____ is one of the main reasons for the unfavourable conditions in *mandis* for farmers.
 - a) Government's subsidies
 - b) High entry fees
 - c) High demand for products
 - d) Lack of storage facilities
7. What is the effect of anti-competitive agreements as per the Competition Act 2003?
 - a) Promotes healthy competition
 - b) It has adverse effect on competition
 - c) Reduces market price
 - d) Encourages combinations
8. _____ is the Udyog Aadhaar Memorandum (UAM).
 - a) A loan scheme for MSME
 - b) A tax benefit scheme for MSME
 - c) A one-page registration form for MSMEs
 - d) A training Programme for MSMEs
9. _____ is one of the main objectives of the national tourism policy.
 - a) To reduce the number of tourists
 - b) To increase the cost of travel
 - c) To make tourism as a national priority
 - d) To limit tourism to certain seasons
10. The primary purpose of establishing Regional Rural Banks (RRBs) was to provide credit to _____.
 - a) Urban entrepreneurs
 - b) Rural large scale industries
 - c) Government projects
 - d) Rural artisans and agricultural labours
11. _____ can issue certificates of deposit (CDs) in India.
 - a) Only Public Sector Banks
 - b) Only commercial banks
 - c) Individuals
 - d) Only central Government
12. _____ of the following is not a component of the primary market.
 - a) Equity shares
 - b) Preference shares
 - c) Stock exchange
 - d) Debentures

Sem - V

Regular Exam

- B) State whether the following statements are True or False. (any TEN) 10**
1. Social infrastructure and economic growth are closely associated.
 2. The National Programme for Mid-Day Meals has not contributed to improving enrollment rates.
 3. FDI always leads to economic dependence on foreign capital.
 4. The National Agricultural policy discourages private sector investment in agriculture.
 5. Agricultural finance in India includes both short-term and long-term loans.
 6. eNAM is an initiative to create a unified national market for agricultural commodities.
 7. The primary objective of disinvestment is to encourage public investment.
 8. MSMEs are classified only on the basis of investment in plant and machinery.
 9. The service sector in India has been growing since the economic reforms of the 1990s.
 10. The Life Insurance Corporation (LIC) is the only public sector life insurance company in India.
 11. The money market is less risky than the capital market.
 12. The capital market in India deals with short-term financial instruments.
- Q.2 Answer any TWO of the following. 15**
- a. Discuss the measures taken by the Government to improve health care infrastructure.
 - b. Explain any seven Sustainable Development Goals.
 - c. Discuss the role of MNCs in Indian economy.
- Q.3 Answer any TWO of the following. 15**
- a. Examine the Features of National Agricultural Policy 2000.
 - b. Discuss the limitations of agricultural price policy.
 - c. Discuss the measures taken by the Government to improve agricultural marketing.
- Q.4 Answer any TWO of the following. 15**
- a. Analyze the role of MSME sector in Indian Economy.
 - b. Explain measures taken by the Government to control industrial pollution.
 - c. Discuss the recent trends in tourism sector in India.
- Q.5 Answer any TWO of the following. 15**
- a. Examine the recent trends in Insurance sector in India.
 - b. Explain the reforms introduced in the Indian money market.
 - c. Briefly discuss the structure of Indian Capital market.
- Q.6 Write short notes on any FOUR of the following. 20**
- a. Rationale of the New Economic Policy 1991
 - b. Administered prices in Indian Agriculture
 - c. Non institutional sources of agricultural finance
 - d. Types of Industrial Pollution
 - e. Role of service sector
 - f. Challenges in banking sector

Sem - V

12/11/24

12/11/2024

Regular Exam

Duration: 3 Hours.

Marks :100

Note: 1. All Questions are Compulsory

2. Figures to the right state the marks allotted to the questions.

Q 1 (a) Select the most appropriate answer from the options given below (Any Ten) 10

1. Export marketing usually involves _____.
 - Minimal competition
 - Customs formalities
 - No risk
 - Dominance of small enterprises
2. Risk in export marketing due to natural calamities like flood is known as _____.
 - Commercial Risk
 - Legal Risk
 - Unforeseen Risk
 - Political Risk
3. India is one of the largest exporter of _____.
 - Exotic birds
 - Fruits and vegetables
 - Olive oil based products
 - Drugs and Pharma products
4. When a country fixes import quantity of commodity from different countries during a specific time period it is known as _____.
 - Quota
 - Consular formality
 - State trading
 - Preferential treatment
5. TRIMs stands for _____.
 - Trade related investment measures
 - Trade restricted investment measures
 - Trade related intellectual measures
 - Trade related investment movement
6. Entry into foreign markets without _____ is risky.
 - Tax holiday
 - Overseas market research
 - Competition
 - Import duty
7. _____ is an outreach programme organised for new and prospective exporters by DGFT.
 - Trade fair and exhibitions
 - Niryat Bandhu scheme
 - EPCG scheme
 - MEIS

8. The negative list of exports does not consist of _____ items.
- Prohibited
 - Canalised
 - Restricted
 - Freely exported
9. The primary objective of _____ is to promote software exports from India.
- STP
 - BTP
 - EHTP
 - TEE
10. _____ incentive is disbursed to Indian exporters through FIEO and the Ministry of Commerce.
- MDA
 - MAI
 - ASIDE
 - IRMAC
11. In India _____ acts as a connecting link between the exporters and the government.
- EPCG
 - FICCI
 - SEZ
 - BTP
12. Under _____ scheme custom duty paid on import of raw material for export production is refunded to exporters.
- EAAS
 - ASIDE
 - DBK
 - IGST

Q 1 (b) State whether the following statements are True or False (Any ten): (10)

1. Export marketing is not influenced by regional economic groupings of the world.
2. Export marketer may face risk of cultural differences and communication barriers.
3. Software services make major contribution to India's service exports.
4. Anti dumping duty nullifies the effect of subsidy given by exporting countries.
5. GATS is an agreement to liberalise manufacturing sector.
6. India is one of the founder members of WTO.
7. e-BRC captures details of export proceeds received by exporters.
8. Red sandal wood is an item of canalised list of exports.
9. Units in SEZ are exempted from routine examination of cargo by custom authorities.
10. Focus market scheme promotes exports of all products to all markets.
11. IIP provides raw material assistance for production to Indian exporters.
12. IGST is collected by the port trust authorities.

Q.2 Answer any two of the following:

- a) What is the importance of exports for a nation?
- b) Discuss the various problems faced by the India's export sector.
- c) Explain region wise India's exports since 2015

(15)

Q.3 Answer any two of the following: (15)

- a) Distinguish Between tariff barriers and non-tariff barriers.
- b) Discuss positive impact of regional economic groupings.
- c) Explain determinants of foreign market selection.

Q.4 Answer any two of the following: (15)

- a) Explain the highlights of FTP 2015-20.
- b) Explain the role of DGFT in promoting exports.
- c) Discuss the benefits given to EOUs

Q.5 Answer any two of the following: (15)

- a) Discuss ASIDE given to state governments to boost exports.
- b) State the functions of commodity boards in export promotion.
- c) Explain the duty drawback scheme given to Indian exporters.

Q.6 Write short notes on the following (Any Four) (20)

- a) Features of Export marketing
 - b) Factors influencing Export marketing
 - c) Need for overseas market research.
 - d) NAFTA
 - e) Towns of Excellence
 - f) Indian Trade Promotion Organisation (ITPO)
-

8. Whistle-blowing helps to:
- A) Discourage transparency
B) Identify unethical practices
C) Promote silence
D) Protect management
9. Bad debts are:
- A) Ignored in accounts
B) Deducted from income
C) Added to assets
D) Recorded as revenue
10. AS-13 applies to:
- A) Only shares
B) Only debentures
C) Both variable and fixed income securities
D) No securities
11. Proposed dividends must be:
- A) Ignored
B) Included as an expense
C) Recorded only if declared
D) Transferred to reserves
12. A company can alter its share capital by:
- A) Issuing shares at par
B) Reducing capital
C) Changing shareholder rights
D) All of the above

Q.2 A) Following is the Trial Balance of Purva Ltd; as on 31st March 2024: (20)

Debit	Amount Rs.	Credit	Amount Rs.
Land & Building	7,00,000	Share Capital:	
Furniture	2,00,000	1,00,000 Equity Shares of Rs.	
Plant & Machinery	6,00,000	10 each	10,00,000
Motor Vehicle	7,00,000	10% Debentures (01/04/2023)	8,00,000
Salaries & Wages	1,44,000	Provision for Tax (2022-23)	1,40,000
Rent & Taxes	36,000	Sundry Creditors	1,80,000
Travelling expenses	32,000	Bills Payable	80,000
Printing & Stationery	34,000	General Reserve	3,60,000
Motor Vehicle Expenses	16,000	Securities Premium	40,000
Repairs of Machinery	33,000	Capital Reserve	30,000
Stock (01/04/2023)	1,88,000	Profit & Loss a/c (01/04/2023)	1,10,000
Debtors	2,90,000	Sales	23,90,000
Cash	16,000	Interest on Investment	15,000
Bills Receivables	60,000		
10% Investments	3,00,000		
Interest on Debentures	32,000		
Advance Tax			
For 2022-23	1,44,000		
For 2023-24	1,20,000		
Purchases	15,00,000		
	51,45,000		51,45,000

Additional information:

- 1) Stock on 31st March 2024 was valued at Rs. 3,00,000.
- 2) Depreciation on Land & Building is to be provided @ 5%, On Plant & Machinery @ 10%, On Furniture @ 10% and on Motor Vehicle @ 20% p.a.
- 3) Debtors include debts due for more than 6 months is Rs. 40,000

- 4) 10% Dividend is proposed by the directors.
- 5) Provision for taxation is to be made @ 50% on the current year's profit.
- 6) The market value of the Investment on 31st March 2024 was Rs. 3,60,000.
- 7) Interest on Investment is due for 6 months but not received.
- 8) Authorized Share capital of the company is Rs. 20,00,000 divided into 2,00,000 Equity Shares of Rs. 10 each.

You are requested to prepare a Profit and Loss account for the year ended 31st March 2024 and Balance Sheet as on that date.

OR

Q.2 B) Following is the summarized Balance Sheet of Canisha Ltd. As on 31 March 2024. (20)

Liabilities	Amt	Assets	Amt
12,000- 8% Preference Share of 100 each	12,00,000	Goodwill	2,00,000
1,00,000 Equity Shares of 10 each	10,00,000	Plant & Machinery	6,00,000
Capital Reserve	1,00,000	Furniture	2,00,000
6% Debentures of 100 each	6,00,000	Stock	3,00,000
Interest due on Debentures	1,00,000	Sundry Debtors	1,50,000
Sundry Creditors	3,60,000	Bank & Cash Balance	2,50,000
		Discount on Debentures	60,000
		Land & Building	6,00,000
		Profit & Loss A/C (Dr.) Balance	10,00,000
	<u>33,60,000</u>		<u>33,60,000</u>

Note : Preference dividend is in arrears for three years.

The followings scheme of reconstruction was prepared and duly approved by the court:

1. The preference shares shall be converted into an equal number of 10% preference shares of 50 each.
2. The equity shares shall be reduced to 4 each. However, the face value will remain the same.
3. 6% debentures shall be converted into equal number of 9% debentures of 75 each. The debenture holders also agreed to waive 50% of the interest due.
4. Arrears of preference dividend is to be reduced to one year's dividend which is paid in cash.
5. The Sundry creditors agreed to waive 30% of their claims and to accept equity shares for ₹60,000 in part settlement of their renewed claims.
6. The assets are to be revalued as under: Land & Building ₹7,00,000, Plant & Machinery ₹5,00,000, Furniture ₹1,60,000, Stock ₹2,00,000 & Sundry Debtors ₹1,40,000.
7. Write off Profit & Loss A/c (Dr.) Balance, Intangible & fictitious assets.
8. Reconstruction expenses were ₹2000.

Pass Journal Entries in the books of Canisha Ltd. to record the above transactions. Also Prepare Capital Reduction A/c.

Q.3 A) On 1st April 2023, Mr. Rajiv had 80,000 Equity Shares of Rs. 10 each of XY Ltd; purchased at a cost of Rs. 20 per share.

On 30th April 2023, Mr. Rajiv Purchased 20,000 Equity Shares of Rs. 10 each of AB Ltd; at Rs. 30 per share. On the same day he also purchased 40,000 Equity Shares of XY Ltd; at Rs. 15 each.

On 30th June 2023 he sold 4,000 Equity Shares of AB Ltd; @ Rs. 25 per share.

On 1st August 2023, Board of Directors of XY Ltd announced the Right issue of Equity Shares, in the ratio of one share for every three shares held, at Rs. 25 each. Full amount of Right shares was payable by 15th August 2023. Shareholders were allowed to renounce their right either in part or full to the outsiders. Mr. Rajiv renounced 50% of his right at Rs. 10 per share and subscribed for the balance.

On 31st August 2023 AB Ltd; Declared a dividend @ Rs. 3 per share for the year ended 31st March 2023.

On 30th September 2023 XY Ltd; Issued one bonus share for every four shares held as on that date.

On 31st December 2023 Mr. Rajiv Sold 11,200 Equity Shares of XY Ltd; at Rs. 35 per share and 4,000 Equity Shares of AB Ltd; at Rs. 25 per share.

You are required to prepare:

- 1) Investment in Equity Shares of XY Ltd; A/c and
- 2) Investment in Equity Shares of AB Ltd; A/c in the books of Mr. Rajiv for the year ended 31st March 2024. (20)

OR

Q.3 B) Complete the following Fixed Assets Schedule of Jaydeep Ltd;

(10)

Asset	Gross Block				Depreciation				Net Block	
	Openin g 01/04/2 3	Addi tion	Deduct ion	Closin g 31/3/24	Openin g 01/04/ 23	Additi on	Dedu ction	Closin g 31/3/2 4	Openin g 01/04/2 3	Closing 31/3/24
Land	?	-	-	?	-	-	-	-	?	2,00,00 0
Building	6,00,00 0	-	?	?	75,000	10,00 0	25,00 0	60,000	?	3,40,00 0
Plant & Machinery	28,00,0 00	-	-	?	11,20,0 00	2,80,0 00	-	?	?	?
Total	36,00,0 00	-	2,00,0 00	34,00,0 00	11,95,0 00	2,90,0 00	25,00 0	14,60,0 00	24,05,0 00	19,40,0 00

Q.3 C) Arjun Ltd; provided the following data:

(10)

Particulars	Amount Rs.
40,000 Shares of Rs. 100 each, Rs. 70 per Share paid up	28,00,000
General Reserve	4,00,000
Profit & Loss Account	30,00,000
Securities Premium	6,00,000
Bank loan (Long term)	15,00,000
Other long term loan	5,00,000

Keeping in view all legal requirements, ascertain the maximum number of Equity Shares that can be bought back by the company at a maximum possible offer price.

Q.4 A) Following is the summarized Balance Sheet of Ditya Ltd. As on 31 March 2024: (20)

Liabilities	Amt	Assets	Amt
10% Preference Share of 100 each	6,00,000	Goodwill	80,000
1,00,000 Equity Shares of 10 each	10,00,000	Other Fixed Assets	11,20,000
Unsecured Loan	50,000	Investment (Mkt Value 50,000)	65,000
6% Debentures of 100 each	6,00,000	Stock	7,00,000
Interest due on Debentures	1,08,000	Sundry Debtors	80,000
Loan from Bajaj Finance. (Including 15,000 Outstanding Interest)	1,15,000	Bills Receivable	67,000
Sundry Creditors	69,000	Profit & Loss A/C (Dr.) Balance	4,30,000
	<u>25,42,000</u>		<u>25,42,000</u>

Note: Preference dividend is in arrears for One years.

1. Preference shareholders to give up their claims, inclusive of dividends to the extent of 30% and balance to be paid off.
2. Debenture holders agree to give up their claims to receive interest in consideration of their rate of interest being enhanced to 10% henceforth.
3. Bajaj Finance agree to give up 50% of their interest outstanding in consideration of their claim being paid off at once.
4. Sundry creditors would like to grant a discount of 5% if they were to be paid off immediately.

5. Balance of Profit & Loss Account, goodwill and 25% of the total sundry debtors to be written off.
 6. Other Fixed assets to be written down by 1,20,000.
 7. Investment to be reflected at their market value.
 8. Cost of reconstructions is 2,350.
 9. To the extent required, equity shareholders suffer on reduction of their rights.
- Pass necessary Journal Entries in the books of the company assuming that scheme has been put through fully and prepare the Balance Sheet after reconstruction.

OR

Q.4 B) Following is the Balance Sheet of Mrunal Ltd; as on 31st March 2024. (10)

Liabilities	Amount Rs.	Assets	Amount Rs.
Equity Shares of Rs. 10 each Rs. 8 per share paid up	10,00,000	Fixed Assets	15,00,000
Security Premium	1,25,000	Investments	12,50,000
General Reserve	5,00,000	Bank	5,00,000
P & L a/c	6,25,000	Other Current Assets	12,50,000
10% Debentures	10,00,000		
Bank loans	2,50,000		
Sundry Creditors	10,00,000		
	45,00,000		45,00,000

After fulfilling all legal requirements, the company decided to buyback 31,250 Shares at an offer price of Rs. 20 per Share. For the purpose of redemption the company took the following steps:

- i) Issued 20,000, 10% Preference Shares of Rs. 10 each at a premium of 10%.
- ii) It sold 50% of Investments at a profit of 10%

Assuming that the buyback is actually carried out, you are requested to pass necessary journal entries in the books of the company.

(Calculation of Maximum number of Shares is not required)

Q.4 C) Mr. Parth holds 48,000, 12% Debentures of Rs. 10 each in Janki Ltd; as on 1st April 2023 at a cost of Rs. 5,60,000. Interest is payable on 30th June and 31st December every year. Mr. Parth provides you the further details: (10)

- 1) On 31st May 2023: 16,000, 12% Debentures were purchased at Rs. 1,63,200 cum interest.
- 2) On 31st October 2023: 16,000, 12% Debentures were purchased at Rs. 1,53,600 ex- interest.
- 3) On 1st December 2023: 24,000, 12% Debentures were sold for Rs. 2,58,000 cum interest.
- 4) On 31st January 2024: 32,000, 12% Debentures were sold for Rs. 3,09,200 ex interest.

You are requested to prepare Investment in 12% Debentures account in the books of Mr. Parth for the year ended 31st March 2024. The debentures were quoted at par on 31st March 2024.

Q.5 A) Why is ethical behavior important for accountants? Give examples of how unethical behavior can affect financial reports and companies. (10)

Q.5 B) What are the legal provisions for the buyback of shares under the Companies Act, how does it affect the company's debt-equity ratio? (10)

OR

Q.5 C) Write Short Notes (Any Four) (20)

1. Importance of Learning Ethics
2. Investment Accounting (AS 13)
3. Distinction: Internal vs External Reconstruction
4. Capital vs Revenue Expenditure
5. Whistle-Blowing in Accounting
6. Buy Back of Shares

F.M 29/10/24

TyB.Com Sem - V

Regular Exam

F.M

(3 Hours)

Marks: 100

- N.B: 1) Check whether you have received the correct question paper.
2) All questions are compulsory with internal options.
3) Q.1 & Q.6 carry 20 marks and Q.2 to Q.5 carry 15 marks each
4) Working notes form a part of the answer and have to be solved immediately after the question and not on the last page of the answer sheet.

Q.1) A) Select the correct answers from the options given below. (Any 10) (10)

1. The basic objective of financial management is _____
 - a. Maximization of profit
 - b. Maximization of shareholder's wealth
 - c. Ensuring financial discipline in the organization
 - d. None of the above
2. In the Notes of Fixed Assets of a company _____
 - a. Net Block Opening = Closing Net Block - Opening Depreciation
 - b. Net Block Opening = Opening Gross Block - Closing Depreciation
 - c. Net Block Opening = Opening Gross Block - Current Depreciation
 - d. Net Block Opening = Opening Gross Block - Opening Depreciation
3. Following is not a quick liability
 - a. Unclaimed Dividends
 - b. Public Deposits
 - c. Bank Overdraft
 - d. Advances Received
4. Loss on Sale of Fixed Assets _____
 - a. Is ignored in the vertical financial statements
 - b. Is shown as non-operating expenditure in the vertical financial statements
 - c. Is shown as operating expenditure in the vertical financial statements
 - d. Is shown as cost of goods sold in the vertical financial statements
5. Which of the following is not a method used in analyzing financial statements?
 - a. Ratio analysis
 - b. Technical analysis
 - c. Trend analysis
 - d. Common size statements
6. Gross profit ratio _____
 - a. Balance sheet ratio
 - b. Revenue statement ratio
 - c. Composite ratio
 - d. None of the above

7. Standard current ratio _____
 - a. 2 : 1
 - b. 1 : 1
 - c. 65%
 - d. 1.33
8. Quick assets is equal to _____
 - a. Current assets – (Stock – prepaid expenses)
 - b. Current assets – (Stock + prepaid expenses)
 - c. Current assets + (stock – prepaid expenses)
 - d. Current assets + (stock + prepaid expenses)
9. Commercial paper is a type of _____
 - a. Fixed coupon bond
 - b. Unsecured short term debt
 - c. Equity share capital
 - d. Government bond
10. The type of collateral (security) used for short term loan is _____
 - a. Real estate
 - b. Plant and Machinery
 - c. Stock of good
 - d. Equity share capital
11. Short term deposits will be shown in the cash Flow statement as _____
 - a. Operating cash flow
 - b. Investing cash flow
 - c. Financing cash flow
 - d. Cash or cash equivalent
12. Redemption of debentures by converting them into equity shares Rs. 40000
 - a. Cash outflow
 - b. Cash inflow
 - c. None of the above
 - d. Both a and b

Q.1) B) State whether the following statements are True or False (Any 10)

(10)

1. Profit maximization is the sole objective of financial statement.
2. Capital profit realized in cash can be used for paying dividend.
3. Dividend can be paid out of capital, but interest cannot be paid out of capital.
4. Owed fund is an internal source of finance.
5. Common size statements are used for both horizontal and vertical analysis.
6. In capital gearing ratio, Pref. share capital forms part of the Denominator.
7. Liquidity and efficiency are used synonymously in ratio analysis.
8. A business with a higher working capital will also have a higher current ratio.
9. Credit purchase can be a good source of short term finance.
10. In India, commercial papers can be issued for any amount and for any duration.
11. Loans given to others is a financing activity.
12. Increase in current assets will always result in inflow of cash.

Q.2) M.K. Ltd. ask you to prepare Statement of Profit and Loss for the year ending on 31.03.2023 and the Balance Sheet as on that date in prescribed form(as per schedule III). The Trial Balance of the company as at 31st March 2023 was as follows: (15)

Trial Balance as on 31.03.2023

Particulars	Dr. (Rs)	Cr (Rs)
Equity Share Capital (Shares of Rs. 10 each)		300000
Securities Premium		40000
General Reserve		56000
6% Debentures		20000
Land and Building	160000	
Plant and Machinery	272000	
Investment (Long Term)	40000	
Stock (31.03.2023)	28000	
Balance at Bank	9200	
Cash in Hand	320	
Profit and Loss Account (Cr.) 01.04.2022		10000
Sundry Creditor		24000
Income Tax Deducted at Source	480	
Administrative Expenses	20800	
Rent and Taxes	960	
Debentures Interest	600	
Audit Fees	1200	
Director Fees	2400	
Sundry Expenses	3480	
Dividend (Gross)		4480
Gross Profit		84960
Total	539440	539440

Additional Information:

1. Authorized Capital of the company is Rs. 400000
2. Depreciation is to be provided 5% on Land and Building and 15% on Plant and Machinery
3. Provision for Taxation to be made at 50% of Net Profit
4. Transfer Rs. 400 to General Reserve
5. Ignore previous year's figures
6. All amounts are in thousands.

OR

Q.2) Following is the Balance Sheet of Zee Ltd. as on 31st March 2023

(15)

Liabilities	Amount	Assets	Amount
General Reserve	215000	Stock	148750
Bank Overdraft	91000	Plant and Machinery	551250
10% Debentures	134750	Prepaid Expenses	12250
14% Pref. Share Capital	175000	Goodwill	135000
Equity Share Capital	450000	Advance Tax	85750
Bills Payable	79050	Bills Receivable	43750
Profit and Loss Account	230000	Bank	49000
Sundry Creditors	182000	Preliminary Expenses	52500
Income Received in Advance	17500	Debtors	214100
Accumulated Depreciation			
- On Land & Building	52500	Land and Building	440000
- On Plant & Machinery	131250		
Share Premium	85250	Patents	110950
Total	1843300	Total	1843300

You are required to rearrange the Balance Sheet in Vertical Form.

Q.3) Prepare a Comparative Revenue Statement in Vertical Form from the following details: (15)

Nilkamal Ltd.

Profit and Loss A/c for the year ended 31st March

Particulars	2022	2023	Particulars	2022	2023
To Opening Stock	225000	300000	By Sales	4500000	6000000
To Purchases	2250000	3210000	By Closing Stock	300000	360000
To Interest on Debentures	150000	150000	By Dividend	12000	39000
To Depreciation:			By Profit on Sale of Machinery	24000	---
- Furniture	15000	15000			
- Machinery	36000	30000			
To Administration Exp.	294000	441000			
To Selling Expenses	456000	753000			
To Carriage Outward	75000	315000			
To Loss by Fire	----	15000			
To Wages	195000	300000			
To Provision for Tax	570000	435000			
To Net Profit	570000	435000			
Total	4836000	6399000	Total	4836000	6399000

OR

Q.3) From the following Balance Sheet, prepare vertical Balance Sheet which is suitable for analysis & calculate Trend percentages taking 2021 as base year. (15)

Balance Sheet as at 31st December

Particulars	2023	2022	2021
Share Capital	50000	50000	50000
Reserves and Surplus	5000	10000	10000
Secured Loan	3000	5000	5000
Unsecured Loan	2000	-	6000
Current Liabilities	5000	5000	4000
Total	65000	70000	75000
Fixed Assets (Net)	40000	45000	50000
Investment	5000	7500	10000
Stock	7000	6000	5000
Debtors	10000	9000	7000
Cash	3000	2500	3000
Total	65000	70000	75000

Q.4) calculate the following ratios: (15)

- a) Current Ratio b) Stock Turnover Ratio c) Liquid Ratio
 d) Debt Equity Ratio e) Gross Profit Ratio f) Net Profit Ratio
 g) Capita gearing ratio

Balance Sheet as at 31st March 2024

Liabilities	Amount	Assets	Amount
Bills Payable	25000	Fixed Assets	125000
Sundry Creditors	50000	Sundry Debtors	50000
Debentures	100000	Bank Balance	25000
Reserves	50000	Inventory	125000
Equity Share Capital	50000		
Preference Share Capital	50000		
Total	325000	Total	325000

Profit and Loss Account for the year ended 31st March 2024

Particulars	Amount	Particulars	Amount
To Opening Inventories	75000	By Sales	500000
To Purchases	150000	By Closing Inventories	125000
To Manufacturing Expenses	50000	By Profit on Sale of Shares	25000
To Direct Wages	100000		
To Administrative Expenses	25000		
To Selling Expenses	25000		
To Loss on Sale of Asset	27500		
To Interest on Debentures	5000		
To Net Profit	192500		
Total	650000	Total	650000

OR

Q.4) Following are the Balance Sheets of X Ltd. and A Ltd. as on 31st March 2024 together with supplementary information for the year ended on that date: (15)

Balance Sheet as on 31st March 2024

Liabilities	X Ltd.	A Ltd.	Assets	X Ltd.	A Ltd.
Paid up Share Capital	200000	350000	Goodwill	30000	50000
Reserves	50500	60000	Building	120000	240000
Profit and Loss A/c	12250	102200	Plant and Machinery	29000	42000
Bank Overdraft	11250	14800	Stock	66000	93000
Sundry Creditors	36000	58000	Debtors	85000	175000
Provision for Taxation	20000	15000			
Total	330000	600000	Total	330000	600000

Additional Information:

Particulars	X Ltd.	A Ltd.
Sales for the year	840000	1050000
Stock on 31 st March 2023	60000	107000
Gross Profit	210000	250000

You are required to compute the following ratios of both companies –

- a) Current Ratio b) Liquid Ratio c) Proprietary Ratio
d) Stock Turnover Ratio e) Debtors Turnover Ratio in no. of times

Q.5) Following are Summary Balance Sheets of Z Ltd. as on 31st March 2022 and 31st March 2023 (15)

Liabilities	31.03.22	31.03.23	Assets	31.03.22	31.03.23
Share capital	1000000	1000000	Land & Building	1000000	950000
General Reserve	300000	300000	Plant and Machinery	800000	700000
Profit & Loss Account	202000	140000	Sundry Debtors	308000	514000
Bank Loan	300000	350000	Equipment	80000	70000
Provision for Tax	100000	100000	Stock	140000	200000
Sundry Creditors	460000	550000	Cash	20000	6000
			Goodwill	14000	--
Total	2362000	2440000	Total	2362000	2440000

Additional Information:

- Dividend of Rs. 50000 was paid during the year ended 31st March 2023
 - Depreciation was provided on Land and Building, Plant and Machinery & Equipment for the year ended 31st March 2023.
 - Machinery of Rs. 50000 and Equipment of Rs. 20000 were acquired during the year ended 31st March 2023
 - Income Tax Provision was made for the year ended 31st March 2023 of Rs. 130000.
- Prepare Cash Flow Statement by Indirect Method as per AS-3 for the year ended 31st March 2023.

OR

Q.5) Following are Summary Balance Sheets of Saket Industries Ltd.

(15)

Liabilities	31.03.22	31.03.23	Assets	31.03.22	31.03.23
Equity Share Capital	400000	800000	Fixed Assets	877000	898000
10% Pref. Share Capital	400000	500000	Investment	260000	600000
Capital Redemption Reserve	400000	-	Stock	500000	440000
Profit & Loss A/c	--	160000	Sundry Debtors	700000	760000
Bank Overdraft	100000	50000	MVAT refund due	33000	36000
Sundry Creditors	1200000	1340000	Advance Income Tax	120000	200000
Provision for Tax	120000	216000	Cash and Bank Balance	50000	100000
			Profit and Loss A/c	40000	--
			Share Issue Expenses	40000	32000
Total	2620000	3066000	Total	2620000	3066000

Additional Information:

1. Bonus Equity Shares were issued to the existing Equity shareholders in the proportion of 1:1, out of Capital Redemption Reserve on 1-4-2022
2. Additional Preference Shares were issued on 31.03.2023. Company pays preference dividend on 31st March every year.
3. Fixed Assets were sold for Rs. 66000 on which loss on sale was Rs. 34000
4. Fixed Assets costing Rs. 400000 were purchased during the year
5. Income tax for 2015-16 was assessed at Rs. 120000 on 31.12.2022

Prepare Cash Flow Statement for the year ended 31st March 2023 by indirect method as per AS- 3 from the above information.

Q.6) A) What is Financial Management? Explain its importance (10)

B) Explain the Long Term Sources of Finance. (10)

OR

Q.6) Write short notes on (Any four) (20)

1. Structure of Schedule III
2. Commercial Papers
3. Common Size Statement
4. Wealth Maximization
5. Balance Sheet ratios
6. Classification of Sources of Finance

Sem. V

14/11/2024

TIME:3 HRS

MARKS:100

N.B:

1. All questions are compulsory
2. Figures to the right indicate full marks

Q1 A. Complete the following statements by selecting the appropriate answers
(AnyTen)

(10)

- 1) When a manager has the ability to work with, understand and motivate other people or group he has _____ skills.
 - a) Conceptual
 - b) Human
 - c) Entrepreneur
 - d) Organizing
- 2) A manager performs the _____ role to represent the organization to an outsider.
 - a. Liaison's
 - b. Disseminator's
 - c. Spokesperson's
 - d. Entrepreneur's
3. _____ skills encompasses the ability to apply specialized knowledge or expertise.
 - a). Human
 - b). Conceptual
 - c). technical
 - d). interpersonal
4. The emotional or feeling segment of an attitude is called its _____ component.
 - a) Affective
 - b) Cognitive
 - c) Behavioural
 - d) Motivational

5. _____ measures the degree to which people identify psychologically with their job.
- Job satisfaction
 - Organizational commitment
 - Job engagement
 - Job involvement
6. The _____ response means passively but optimistically waiting for conditions to improve.
- Exit
 - Voice
 - Loyalty
 - Neglect
7. _____ is defined as the process that account for an individual's intensity, direction, and persistence of effort towards attaining a goal.
- Attitudes
 - Motivation
 - Job satisfaction
 - Leadership
8. Social, esteem and self-actualization are known as _____.
- Primary needs
 - Intermediate needs
 - Higher order needs
 - Lower order needs
9. Frederick Herzberg proposed the _____.
- Hierarchy of needs
 - Two factor theory
 - Theory X and theory Y
 - Theory of needs

10. A core component of Emotional intelligence is _____.

- a. Empathy
- b. Sympathy
- c. Emotional stability
- d. Friendliness

11. Fiedler developed the _____ questionnaire to identify the style of leadership.

- a. CPL
- b. PLC
- c. LPC
- d. PRL

12. _____ leaders guide or motivate their followers in the direction of established goals by clarifying role and task requirements.

- a. Charismatic
- b. Transactional
- c. Transformational
- d. Mentoring

Q1 B. State whether the following statements are true or false (AnyTen)

(10)

- i. OB is interdisciplinary in nature.
- ii. Managing a diversified workforce is a easy task
- iii. In his interpersonal role, manager acts as monitor.
- iv. Job satisfaction and OCB Organizational Citizenship behavior are interrelated.
- v. Dissatisfaction is the cause of deviant behaviors.
- vi. In organizational commitment an employee identifies with particular organization and its goals and wishes to remain as a member.
- vii. Herzberg proposed that human beings have hierarchy of five needs.
- viii. The three elements in motivation are intensity, direction and performance.
- ix. Aptitude maintains how long a person can maintain effort.
- x. Vision and articulation is a characteristic of charismatic leader.
- xi. Fiedler identified three basic styles of leadership
- xii. Transactional leaders guide or motivate their followers in the direction of established goals.

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- xii. Transactional leaders guide or motivate their followers in the direction of established goals.

Q2. Answer Any Two of the following: (15)

- a) Define Organizational Behaviour. What are the functions of a manager?
- b) How do organizations help their employees achieve work-life balance in a bid to motivate them?
- c) Describe the roles played by managers as put forth by Mintzberg.

Q3. Answer Any Two of the following: (15)

- a) Name the major job-related attitudes. Discuss in detail any two major job attitudes.
- b) Explain the concept of job satisfaction and discuss in detail how it can be measured.
- c) Write a detailed note on the relationship between job satisfaction, job performance and organizational citizenship behaviour

Q4. Answer Any Two of the following: (15)

- a) Define motivation. Explain Maslow's hierarchy of needs theory.
- b) Describe the three elements of motivation. Explain the theory of needs by McClelland.
- c) Write a detailed note on goal setting theory.

Q5. Answer Any Two of the following: (15)

- a) Explain the behavioural theories of leadership
- b) How can people be trained to become charismatic leaders? What is the dark side of charismatic leaders?
- c) Explain the importance of mentoring in developing future leaders.

Q6. Write short notes on (Any Four) (20)

- a) Psychology and OB
- b) Decisional roles of Managers
- c) Components of attitudes
- d) Expectancy theory of motivation.
- e) Types of organizational justice
- f) Trait Leadership.

B) State whether the following statements are True or False (Any 10) 10

1. Planning refers to making arrangement of resources to undertake marketing activities.
2. Taylor advocated the concept of mental revolution.
3. Forecasting is the process of estimating current events.
4. The Top management frames plan and policies from long term point of view.
5. Responsibility can be delegated.
6. Policies define the boundaries within which the decisions can be made.
7. The concept of functional organization was first introduced by Philip Kotler.
8. The matrix system help the employees to improve their knowledge and skills.
9. In a Virtual Organization leaders do not get support from the team members.
10. HRA facilitates promotion of competent and capable employees.
11. Emotional Capital refers to only intellectual capital.
12. Retraining is a combination of refresher and job training.

Q.2) Answer the Following (Any 2) 15

- a. Define Management. Discuss its importance.
- b. Explain Taylor's Scientific Management theory.
- c. Describe the various functions of management.

Q.3) Answer the Following (Any 2) 15

- a. Bring out the constraints of planning.
- b. What is MBO? Explain its process.
- c. Enumerate the need and importance of decision-making.

Q.4) Answer the Following (Any 2) 15

- a. What is Matrix Organization? Explain its features.
- b. Elaborate the factors determining span of management.
- c. Write the advantage and disadvantage of virtual organization.

Q.5) Answer the Following (Any 2) 15

- a. What are the components of Job Analysis?
- b. Briefly explain the various methods of training managerial personnel.
- c. State and explain the limitations of performance appraisal.

Q.6) Write Short Notes on (Any 4) 20

- a. Managerial skills in 21st Century
- b. Management as a Profession.
- c. Essential of a good plan.
- d. Advantages of Strategic Business Unit.
- e. Sources of Recruitment
- f. Importance of Training

18/11/24

4093728

V

[Time:3 Hours]

[Total Marks: 100]

- N.B.:** Please check whether you have got the right question paper.
1. All questions are compulsory.
 2. Figures to the right indicate full marks.
 3. Use of non-programmable scientific calculator is allowed.
 4. Graph papers will be supplied on request.

Q.1A. Answer whether following statements are True or False.

8

- i) Simplex method is used to solve linear programming problems containing more than two decision variables.
- ii) The feasible region is set of all points that satisfy at least one condition from the L.P. P.
- iii) With passage of years, the running and operating costs of items due to normal wear and tear decreases.
- iv) When time value of money is considered, the costs need to be discounted.
- v) Operations research came into existence during first world war.
- vi) NWCR method always gives better solution.
- vii) A transportation problem should be balanced before finding IFS.
- viii) VAM is used to find optimal solution.

B. Select the most appropriate choice for the following:

7

- i) Decision variables are _____
 - a) Controllable
 - b) uncontrollable
 - c) Parameters
 - d) none of these
- ii) Operations Research model is typically based on the use of _____
 - a) biological model
 - b) mathematical model.
 - c) iconic model.
 - d) none of the above.
- iii) Which of the following is correct about linear programming problem?
 - a) all constraints must be linear.
 - b) all constraints must be only ' \leq ' type.
 - c) objective function must be non-linear in decision variables.
 - d) all decision variables must be negative.
- iv) To covert ' \geq ' type constraint into '=' type (equation), _____ variable is used.
 - a) slack
 - b) surplus
 - c) artificial
 - d) none of these

- v) If two constraints do not intersect in the first quadrant of the graph then
- one of the constraints is redundant
 - the solution is unbounded
 - the solution is infeasible
 - none of these
- vi) A RIM conditions is getting satisfied when number of occupied cells _____
 $m+n-1$.
- equals to
 - less than
 - more than
 - not equal to
- vii) LCM stands for _____
- Less cost method
 - Least cost method
 - Less cause methodology
 - Linear cost method

C. Answer briefly in one or two sentences:

5

- What is meant by decision variables with reference to L.P.P?
- What is meant by dual of a L.P.P?
- What is the gradual failure?
- What is transportation problem? State it's objectives.
- What is unbalanced transportation problem? How to convert it into balanced transportation problem?

- Q.2A.** Firm ABC has three plants and four destinations. Unit cost of transportation from each plant to each destination is given in the following table. Find optimum solution using MODI method.

20

Plants	Destinations				Supply
	D1	D2	D3	D4	
P1	5	1	5	11	120
P2	3	3	1	3	200
P3	12	7	6	1	80
Demand	50	80	90	180	

OR

- B.** A company has 3 ware houses, W1, W2 & W3. It supplies to 3 markets P, Q & R. The profit per unit is given in Rs. in the following table. Find maximum Profit.

20

Warehouse	Markets			Supply
	P	Q	R	
W1	20	17	18	150
W2	10	15	13	150
W3	13	22	11	100
Demand	120	180	100	

- Q.3A. A company produces two products A and B using two raw materials R_1 and R_2 . The profit per unit on product A is Rs.28 and on product B is Rs.30. One unit of product A requires 3 units of R_1 and 3 units of R_2 . One unit of product B requires 4 units of R_1 and 5 units of R_2 . The two raw materials R_1 and R_2 are available 18 unit and 30 units per day. Besides raw material, each unit of product A requires 3 hours of labor time and each unit of product B requires 1 hour of labor time. In all total 8 hours of labor is available daily. Formulate the above problem as linear programming problem and solve it by simplex method. 20

OR

- B. A small-scale manufacturing unit produces two products A and B using three operations: grinding, assembly and testing. Product A requires 30, 20, and 10 minutes of grinding, assembly and testing respectively, whereas product B requires 15, 40, and 10 minutes of grinding, assembly and testing respectively. At least 900 minutes of grinding, 1200 minutes of assembly and 500 minutes of testing should be used. Each product A costs Rs. 60 and each product B costs Rs. 90 to manufacture. Formulate the above problem as linear programming problem and solve it by graphical method. 15

- ii) Write the dual of the following linear programming problem: 5
 Maximize $Z = 40X_1 + 60X_2 + 55X_3$
 subject to

$$\begin{aligned} 5X_1 + 3X_2 - 2X_3 &\leq 27, \\ 2X_1 + 5X_2 + X_3 &\leq 29, \\ 3X_1 + X_2 + 2X_3 &\geq 31, \\ X_1 \geq 0, X_2 \geq 0, X_3 &\geq 0 \end{aligned}$$

- Q.4 Attempt ANY TWO of the following: 20

- A For the following data find the optimum period of replacement: Initial cost of the machine is Rs.60000

Year	1	2	3	4	5	6	7	8
Operating cost:	10000	12000	14000	16000	20000	24000	28000	32000
Scrap value:	30000	15000	7500	3750	2000	2000	2000	2000

- B The initial cost of the machine is Rs.40000 and running cost increase with the age of the machine is given below:

Year	1	2	3	4	5	6	7
Running cost(Rs.)	6000	7000	9000	11000	14000	17000	20000

It is given that money is worth 10% per year and the scrap value is nil. Find the optimum period of replacement for the machine.

- C A computer has 5000 electronic tubes. The failure rate is given below:

Year	1	2	3	4	5
Probability of failure:	0.1	0.25	0.35	0.2	0.1

If the tubes are to be group replaced the cost per tube is Rs.2. The cost of individual replacement is Rs.10 per tube. Find the optimum replacement policy for the tubes.

Q.5 Attempt ANY FOUR of the following:

20

- A What is the need of replacement policy?
 B Explain briefly any five advantages of Operations Research.
 C Explain multiple optimum solutions with reference to Linear Programming Problem
 D Write the Linear Programming Problem corresponding to initial simplex table for a maximization problem given below:

Basis		C_j	5	3	0	0
		Solution				
C_i	X_i	b_i	X_1	X_2	S_1	S_2
0	S_1	12	2	4	1	0
0	S_2	10	2	2	0	1

- E Find Initial Feasible Solution using LCM method for following transportation Problem & hence it's total cost.

Sources	Destinations			Supply
	D1	D2	D3	
S1	6	4	9	200
S2	10	5	8	200
S3	2	7	6	100
Demand	250	100	150	

- F Write a short note on Vogel's Approximation Method.
