

UMS2

Roll No. ...106955.....



Total No. of Questions – 6

Total No. of Printed Pages – 12

Maximum Marks – 70

GENERAL INSTRUCTIONS TO CANDIDATES

1. The question paper comprises two parts, Part I and Part II.
2. Part I comprises Multiple Choice Questions (MCQs).
3. Part II comprises questions which require descriptive answers.
4. Ensure that you receive the question paper relating to both the parts. If you have not received both, bring it to the notice of the invigilator.
5. Answers to MCQs in Part I are to be marked on the OMR answer sheet as given on the cover page of descriptive answer book only. Answers to questions in Part II are to be written in the same descriptive answer book. Answers to MCQs, if written inside the descriptive answer book will not be evaluated.
6. OMR answer sheet given on the cover page of descriptive answer book will be in English only for all candidates, including for Hindi medium candidates.
7. **The bar coded sticker provided in the attendance register, is to be affixed only on the descriptive answer book.**
8. You will be allowed to leave the examination hall only after the conclusion of the exam. If you have completed the paper before time, remain in your seat till the conclusion of the exam.
9. Duration of the examination is 3 hours. You will be required to submit the descriptive answer book with OMR cover page to the invigilator before leaving the exam hall, after the conclusion of the exam.
10. The invigilator will give you acknowledgement on Page 2 of the admit card, upon receipt of the descriptive answer book.
11. Candidate found copying or receiving or giving any help or defying instructions of the invigilators or having / using mobile phone or smart watch or any other electronic gadget will be expelled from the examination and will also be liable for further punitive action.

PART – II

70 Marks

1. Question paper comprises 6 questions. Answer Question No. 1 which is compulsory and any 4 out of the remaining 5 questions.
2. Working notes should form part of the answer.
3. Answers to the questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be evaluated.

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PART - II

1. (a) RST Ltd. manufactures a standard line of office desks. The company operates with a monthly manufacturing capacity of 5,000 units. The following data relates to the output and cost of two consecutive months of production :

Month	Units Manufactured	Direct Material (₹)	Direct Wages (₹)	Factory Overheads (₹)
April	3,000	15,00,000	6,00,000	3,50,000
May	3,800	19,00,000	7,60,000	4,30,000

In the month of June, the number of units manufactured will be 4,000 units. However, the prices of direct material will increase by 10% and direct wages will increase by 15%. The fixed factory overheads will reduce by 20%.

The company desires to earn a profit of 11% on selling price.

Calculate the selling price per desk in the month of June when the monthly output is 4,000 units.

- (b) The following information relates to two workers - Ajoy and Bijoy who are engaged in producing the same product by using the same material :

Time allowed to make the product :	40 hours
Actual time taken to complete the product	32 hours by Ajoy 30 hours by Bijoy
Normal Wage Rate	Same for both
Bonus payment plan	Halsey 50% plan for Ajoy Rowan plan for Bijoy
Factory overhead recovered	@ ₹ 360 per hour for actual time taken by each worker.
Factory cost for the product for each worker	₹ 1,24,800 Ajoy ₹ 1,24,800 Bijoy

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Required :

- (i) Compute the normal hourly wage rate.
- (ii) Compute the cost of material used.

(e) MD Limited has furnished following information for the month of August, 2025 :

Standard Variable Overhead rate	₹ 3 per hour
Standard Hours for per unit of production	5 hours
Actual Output	15,560 units
Variable Overhead Efficiency Variance	₹ 11,400 (F)
Variable Overhead Expenditure Variance	₹ 37,000 (A)
Standard Fixed Overhead rate	₹ 2 per hour
Actual Fixed Overheads	₹ 1,85,000

You are required to calculate :

- (i) Actual Hours
- (ii) Actual Variable Overhead rate per hour
- (iii) Variable Overhead Cost Variance
- (iv) Fixed Overhead Cost Variance

SHXR AHXR AHXR
EBB Emp
cost

2. (a) XYZ Highway Toll Plaza Limited operates a toll plaza on a 100 km highway and collects tolls from vehicles passing through the plaza. The company has estimated that every year a total of 60 lakh vehicles (60% Passenger vehicles, 15% Heavy Commercial Vehicles and rest are Buses) will be using the highway during the 15 years toll collection tenure.

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Toll Operating and Maintenance cost for the month (30 days in a month)
are as follows :

(1) Personnel Costs (Salaries) :

Collection Personnel :

- Number of shifts : 3
- Number of toll collection personnel per shift : 10
- Salary per day per person : ₹ 800

Supervisors :

- Number of shifts : 2
- Number of supervisors per shift : 3
- Salary per day per supervisor : ₹ 1,200

Security Personnel :

- Number of shifts : 3
- Number of security personnel per shift : 10
- Salary per day per security person : ₹ 500

Toll Plaza Manager :

- Number of shifts : 2
- Number of managers per shift : 1
- Salary per day per manager : ₹ 2,000

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(2) Other Annual costs :

Electricity	₹ 14,40,000
Telephone & Communication Cost	₹ 2,40,000
Maintenance Cost	₹ 60,00,000
Depreciation and amortization	₹ 12,00,00,000
Insurance and safety cost	₹ 15,00,000
Interest expense incurred for servicing term loans	₹ 7,83,48,000

The toll rate per vehicle is to be fixed as under :

Heavy commercial vehicles	500% of toll rate for Passenger vehicle
Bus	400% of toll rate for Passenger vehicle

Required :

- Calculate the total cost per month for the toll plaza.
- The company aims to achieve a 20% profit margin over total takings. Calculate the toll rate to be charged for each type of vehicle. (Assume a 360 days year.)

(b) A factory has three production departments, P_1 , P_2 , P_3 and two service departments S_1 and S_2 . Both the service departments are independent and provide services to each other. Following is the detail of expenses of each service department :

Department	Amount (₹)
S_1	1,60,000
S_2	2,40,000

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Further the expenses of department S_1 and S_2 are apportioned on the following basis :

	P_1	P_2	P_3	S_1	S_2
S_1	25%	35%	20%	-	20%
S_2	35%	30%	25%	10%	-

You are required to apportion the expenses of departments S_1 and S_2 to production departments P_1 , P_2 and P_3 using Simultaneous Equation Method.

3. (a) A consultancy firm provides project management service in three sectors - Technology, Healthcare and Education. The Project management service covers development and implementation of software for various MIS requirements of its clients. The fees charged per project is as follows :

Technology : ₹ 90,000

Healthcare : ₹ 1,20,000

Education : ₹ 1,10,000

The company uses Activity-Based Costing (ABC) to allocate its overhead costs. For the month of August 2025, the following informations are provided :

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Service Sector	Number of Projects	Software Development Hours	Consulting Hours	Number of Client Meetings
Technology	20 projects	10,000 hours	6,400 hours	30
Healthcare	10 projects	7,000 hours	5,600 hours	20
Education	10 projects	5,000 hours	2,000 hours	40

Overhead Costs and Activities :

Activity	Total Cost (₹)	Cost Driver
Management of Projects	8,10,000	Number of projects
Consulting Service Delivery	4,20,000	Consulting hours
Client Interaction & Meetings	6,30,000	Number of client meetings
Administration and Support	15,40,000	Software development hours

You are required to :

- Prepare a statement showing the total cost and per project cost of project management service for each service sector – Technology, Healthcare and Education using Activity Based Costing Approach.
- Identify the most profitable sector based on profitability percentage on fees charged.

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- (b) SM Limited is the manufacturer of the two products A & B. The following particulars are extracted from the records of the company :

	A	B
Maximum Capacity	5,000 units	3,500 units
Selling price per unit	₹ 1,000	₹ 1,500
Cost per unit :		
Raw Material @ ₹ 20 per kg	₹ 200	₹ 400
Wages @ ₹ 10 per hour	₹ 150	₹ 100
Direct Expenses	₹ 200	₹ 300
Variable overhead	₹ 80	₹ 120

The total fixed overhead for product A is ₹ 2,50,000 and for product B is ₹ 3,50,000.

The company manufactures both the products using the same grade of material. The company is facing a constraint of raw material which is available in limited quantity of 1,10,000 kgs only.

Required :

Determine the optimum product mix, considering material as the limiting factor, to generate maximum profit and calculate the maximum profit.

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4. (a) SVS Limited manufactures a single product 'A1'. The company has estimated its quarter-wise sales for the next year as follows :

Quarter	I	II	III	IV
Sales (Units)	72,000	90,000	99,000	1,08,000

In the beginning of the year, the opening stock of finished goods is 14,400 units and the company expects to maintain the closing stock of finished goods at 29,400 units at the end of the year. The production pattern in each quarter is based on 80% of the sales of the current quarter and 20% of the sales of the next quarter. The company maintains this 20% of sales of next quarter as closing stock of current quarter.

The opening stock of raw materials in the beginning of the year is 24,000 kgs and the closing stock at the end of the year is required to be maintained at 12,000 kgs. Each unit of finished output requires 2 kgs of raw material. The production time required to produce one unit of product 'A1' is 5 hours.

During the production, the product uses two machines as under :

Product	Machine A	Machine B	Total
A1	2 hours	3 hours	5 hours

Machine A requires 100 hours of maintenance after a use of 5000 hours and Machine B requires 100 hours of maintenance after use of 3000 hours.

Required :

- Prepare quarter-wise Production Budget (in units) and the Raw Material Consumption budget (in quantity) for the next year.
- Calculate total machine hours including maintenance time required during the year for Machine A and Machine B to manufacture product 'A1'.

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- (b) Sundar Limited maintains its Cost Accounting System on the basis of Non-Integral System of Accounting. The following transactions arose during the month of August, 2025 :

Particulars	Amount (₹)
Materials purchased on credit	10,25,000
Materials issued to production (Direct)	5,55,000
Direct Wages allocated to production	3,00,000
Factory Overheads over-absorbed	2,20,000
Administration Overheads under-absorbed	1,40,000

Required:

Journalize the above-mentioned transactions in Cost Books maintained on Non-Integrated System of Accounting.

5. (a) TS Limited is suffering from material deterioration and finds that their valuable stocks are not properly stored. The company furnishes following information :

Serial No.	Material Name	Units	Total Cost (₹)
1	MA	54,105	14,855
2	MB	32,300	12,823
3	MC	28,600	13,972
4	MD	10,250	47,685
5	ME	23,410	39,015
6	MF	2,580	1,08,260
7	MG	8,900	89,410
8	MH	4,855	98,980

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Store-keeper of the company argues that he has taken proper care in storing three types of material named MA, MB and MC as they are in bulk quantity. He further argues that only a few units of material MG and MH has been deteriorated due to bad weather.

The management of TS Limited wants to get him aware about value of different items.

Required :

Rank the materials and draw a plan of ABC selective control by using the following basis of selective control.

₹ 50,000 & above	'A' category items
₹ 15,000 to ₹ 50,000	'B' category items
Below ₹ 15,000	'C' category items

- (b) A company manufactures electronic gadgets and uses a specialized component. The company incurs an ordering cost of ₹ 1,250 per order. The carrying cost for storing the specialized components is ₹ 25 per unit per annum. The company's annual production is 90,000 gadgets, and each gadget requires one component for its assembly. 3

You are required to calculate :

- (i) Economic Order Quantity ²⁰⁰⁰
- (ii) Number of orders to be placed in a year ₃₀

- (c) Complete the table regarding accounting entries pertaining to Over/Under absorption of overheads :

Absorption of overhead	Accounts	Dr/Cr	Calculation of Amount Formula
Under-absorption	Stock of Finished goods Account	✓	
Over-absorption	Stock of Semi-finished goods (WIP) Account	✓	
Under-absorption	Cost of Sales Account	✓	

6. (a) Define Responsibility Centre and discuss the types of Responsibility Centres. 5
- (b) List the advantages of Job Costing. 5
- (c) List the important factors which need consideration for controlling employee costs. 4

OR

- (c) Discuss the uses of Bill of Material in the following departments : 4
- Marketing (Purchase) Department
 - Production Department
 - Stores Department
 - Cost/Accounting Department