

Reg. No. :

Code No. : 7541

Sub. Code : ZKCM 41

M.Com. (CBCS) DEGREE EXAMINATION,
APRIL 2023.

Fourth Semester

Commerce — Core

APPLIED COSTING

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Process costing is suitable for
(a) Hospitals (b) Transport firms
(c) Oil refining firms (d) Brick laying firms
2. Material requisition is meant for
(a) Purchase of material
(b) Supply of material from stores
(c) Sale of material
(d) None of the above

20. (a) Compute the net monetary result of X Company Ltd. as at 31st December, 1991. The relevant data are given below :

	1.1.91	31.12.91
	Rs.	Rs.
Cash	5,000	10,000
Book debts	20,000	25,000
Creditors	15,000	20,000
Loan	20,000	20,000
Retail Price Index Number :		
January 1, 1991		200
December 31, 1991		300
Average for the year		240

Or

- (b) Discuss :

- (i) Responsibility Centre
- (ii) Target costing
- (iii) Cost reduction
- (iv) Cost control
- (v) Activity based costing.

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3. 'Recreation expenses' in factory are apportioned on the basis of
- (a) Material cost
 - (b) Wages
 - (c) Prime cost
 - (d) Number of employees
4. Departmentalisation of overhead is known as
- (a) Primary distribution
 - (b) Secondary distribution
 - (c) Absorption
 - (d) None of these
5. Process cost is ascertained and recorded in
- (a) Balance Sheet
 - (b) Profit and Loss Account
 - (c) Separate Statement
 - (d) Separation Account in Ledger
6. Finished products of a preceding process is
- (a) The raw material for subsequent process
 - (b) Cost of production of subsequent process
 - (c) Credited to subsequent process
 - (d) None of these

7. Break even chart is a chart of
- (a) Sales
 - (b) Total cost
 - (c) Profit
 - (d) Sales and Total cost
8. A key factor is
- (a) Budget factor
 - (b) Limiting factor
 - (c) Cost factor
 - (d) None of these
9. Items whose amounts are fixed by contract in terms of monetary units, are called _____.
- (a) hybrid items
 - (b) non-monetary items
 - (c) monetary items
 - (d) monetary terms
10. Holding gains refer to the gain due to difference between the current value of an asset and its _____.
- (a) operating income
 - (b) operating cost
 - (c) variable cost
 - (d) original cost



PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Two components, A and B are used as follows :

Normal usage	50 units per week each
Minimum usage	25 units per week each
Maximum usage	75 units per week each
Re-order quantity	A : 300 units B : 500 units
Re-order period	A : 4 to 6 weeks B : 2 to 4 weeks

Calculate for each component :

- (i) Re-order level
- (ii) Minimum level
- (iii) Maximum level
- (iv) Average stock level.

Or

- (b) Calculate the Factory Cost from the following particulars :

	Rs.
Material consumed	50,000
Productive wages	30,000

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	Rs.
Unproductive wages	3,000
Salary of factory manager	6,000
Consumable spares	1,000
Rent of factory premises	2,500
Machine depreciation and repairs	1,500
Oil, grease etc.	500
Salary of factory clerks	2,000
Rent of factory furniture	800

12. (a) The following details pertain to the production department of a factory.

Materials consumed	Rs. 60,000
Direct wages	Rs. 40,000
Machine hours	50,000
Labour hours worked	25,000
Factory overhead relating to the department	Rs. 50,000

Calculate overhead absorption rates under different possible methods from the above details.

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- (b) From the following particulars, calculate earnings of a worker under.

- (i) Time rate system
- (ii) Piece wage rate
- (iii) Halsey plan and
- (iv) Rowan plan.

Wage Rate — Rs. 2 per hour

Production per hour— 4 units

Dearness allowance — Re. 1 per hour

Standard time fixed— 80 hours

Actual time taken — 50 hours

Production — 250 units

13. (a) The following are the details in respect of Process X and Process Y of a processing factory :

Particulars	Process X	Process Y
	Rs.	Rs.
Material	10,000	—
Labour	10,000	14,000
Overhead	4,000	10,000

The output of Process X is transferred to Process Y at a price calculated to give a profit of 20% on the transfer price and the output of Process Y is charged to Finished Stock at a

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profit of 25% on the transfer price. The finished stock department realised Rs. 1,00,000 for the finished goods received from Process Y. You are asked to show Process Accounts and Total Profits assuming there were no opening and no closing work-in-process.

Or

- (b) 200 tonnes of raw material are used for producing a commodity which passes through two processes. The costs are as follows :

Particulars	Process I	Process II
	Rs.	Rs.
Materials	2,000	—
Labour	1,000	500
Works Expenses	500	300

10% of the material is wasted in the process. The wastage has been normal. The scrap realises Rs. 50. Show Process No. I Account.

14. (a) (i) Calculate break even point from the following :

Sales 1,000 units at Rs. 10 each
Rs. 10,000

Fixed cost — Rs. 8,000

- (ii) If the selling price is reduced to Rs. 9, what is the new break even point?

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- (b) An automobile manufacturing company finds that the cost of making Part No. 208 in its own workshop is Rs. 6. The same part is available in the market at Rs. 5.60 with an assurance of continuous supply. The cost data to make the part are :

	Rs.
Material	2.00
Direct labour	2.50
Other variable cost	0.50
Fixed cost allocated	<u>1.00</u>
	<u>6.00</u>

- (i) Should the part be made or bought?
(ii) Will your answer be different if the market price is Rs. 4.60?

Show your calculations clearly.

15. (a) Mention the various centres classified under 'responsibility accounting'.

Or

- (b) A firm purchased a machinery for a sum of Rs. 10 lakhs on January 1, 1987. It has an expected life of 10 years without any scrap value. The price indices for the asset were as follows :

January 1, 1987	100
January 1, 1990	160
December 31, 1990	175

You are required to value the machinery on January 1, 1990 and December 31, 1990, both according to Historical Cost Accounting System and Current Cost Accounting System, charging depreciation on 'straight line basis'.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) P Ltd. used three types of materials A, B and C for production of X, the final product. The relevant monthly data for the components are as given below :

	A	B	C
Normal usage (units)	200	150	180
Minimum usage (units)	100	100	90
Maximum usage (units)	300	250	270
Reorder quantity (units)	750	900	720
Reorder period (months)	2 to 3	3 to 4	2 to 3

Calculate for each component :

- (i) Reorder level
(ii) Maximum level
(iii) Minimum level and
(iv) Average stock level

Or

- (b) Indicate the items excluded from cost accounts.



17. (a) Krishna producing concern is divided into four departments. 'A', 'B', 'C' are production departments and 'D' is a service department. The actual expenses for a period are as follows :

	Rs.
Rent	10,000
Repairs to plant	6,000
Depreciation of plant	4,500
Lighting expenses	1,000
Supervisory expenses	15,000
Fire insurance (on stock)	5,000
Power	9,000
Employer's liability for insurance	1,500

The following information is available in respect of the four departments :

	Department			
	A	B	C	D
Area (Sq.feet)	1,500	1,100	900	500
Number of lights	75	11	9	5
Number of employees	200	150	100	50
Total wages (Rs.)	60,000	40,000	30,000	20,000
Value of plant (Rs.)	2,40,000	1,80,000	1,20,000	60,000
Value of stock (Rs.)	1,50,000	90,000	60,000	—

Apportion the costs to the various departments on the most equipment method.

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- (b) The standard production in a factory is 10 units per hour for a day of 8 hours. The wage is Rs. 6 per day. Bonus rated on efficiency is paid according to a scale as follows :

Level of efficiency	Bonus
Upto 60% of standard	Nil
Above 60% and upto 75%	5%
Above 75% and upto 90%	10%
Above 90% and upto 100%	15%

For an increase of every 1% of efficiency beyond 100% the bonus also rises by 1%. Output of 3 workers on a days was as follows :

A — 40 units

B — 75 units

C — 100 units

Calculate the earnings of the workers.

18. (a) 100 units are introduced into process I at a cost of Rs. 9,600 and an expenditure of Rs. 4,800 is incurred. From past experience, it is ascertained that wastage normally arises to the extent of 15% of units introduced. This wastage is having a scrap value of Rs. 10 per unit. The actual output of process I is 90 units, transferred to Process II. Prepare Process I Account, Abnormal Gain Account and Normal Loss Account.

Or

- (b) Discuss the various types of equivalent production problems.

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19. (a) A toy manufacturer earns an average net profit of Rs. 3 per piece in a selling price of Rs. 15 by producing and selling 60,000 pieces at 60% of the potential capacity. Composition of his cost of sales is :

Direct materials — Rs. 4

Direct wages — Re. 1

Works overhead — Rs. 6 [50% fixed]

Sales overheads — Re. 1 [25% varying]

During the current year, he intends to produce the same number but anticipates that :

- (i) his fixed charges will go up by 10%
- (ii) rates of direct labour will increase by 20%
- (iii) rates of direct material will increase by 50%
- (iv) selling price cannot be increased.

Under these circumstances he obtains an order for a further 20% of his capacity. What minimum price will you recommend for accepting for order to ensure the manufacturer an overall profit of Rs. 1,80,500?

Or

- (b) The budgeted result for Joseph & Co. Ltd., include the following :

	Sales Rs. in lakhs	Variable cost as % of sales value
Product A	50	60%
Product B	40	50%
Product C	80	65%
Product D	30	80%
Product E	44	75%
	244	66%

Fixed overhead for the period is Rs. 90 lakhs.

You are required to :

- (i) Prepare a statement showing the amount of loss expected
- (ii) Recommend a change in the sales volume of each product which will eliminate the expected loss. Assume that the sale of only one product can be increased at a time.

