

2021

**COST AND MANAGEMENT ACCOUNTING — HONOURS**

**Fourth Paper**

**(C-24-A)**

**Full Marks : 100**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

**Group - A**

1. (a) What do you mean by the term Costing?  
(b) Mention any four objectives of Cost Accounting. 2+4

**Or,**

Which method of costing would you recommend for the following industries? 6

- (a) Construction Industry  
(b) Airlines Company  
(c) Steel Industry  
(d) Computers  
(e) Toy-making  
(f) Bicycle manufacturing.
2. The following information is provided in respect of Material X by the Moonlight Ltd. for the month of March, 2021 :

01.03.2021	Stock	200 units @ ₹ 5 per unit
05.03.2021	Purchased	600 units @ ₹ 3 per unit
08.03.2021	Issued	500 units
25.03.2021	Purchased	800 units @ ₹ 4 per unit
31.03.2021	Issued	700 units

You are required to calculate :

- (a) The value of stock on 31.03.2021.  
(b) The value of materials consumed during the month of March, 2021. The accountant of Moonlight Ltd. is following FIFO method of pricing issues. 4+2

**Please Turn Over**

3. In a factory a job can be executed either through workman Nirmal or Sumit. Nirmal takes 32 hours to complete the job while Sumit finishes it in 30 hours. The standard time to finish the job is 40 hours. The raw material input cost and hourly wage rate are same for both the workers. Nirmal is entitled to receive bonus according to Halsey plan while Sumit is paid bonus as per Rowan plan. Works overheads are recovered on the job at ₹ 15 per labour hour worked. The factory cost of the job comes to ₹ 5200 irrespective of the workmen engaged. Find out hourly wage rate and cost of raw materials input.

3+3

4. Find the E.O.Q. from the following data—

Actual consumption – 18,000 units p.a.; Cost per unit ₹ 1.50; Cost of placing and receiving an order – ₹ 12 and Inventory carrying cost – 20% of unit value.

Also calculate : (a) number of orders p.a.

(b) frequency of order.

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**Or,**

What do you mean by Ordering Level? How is it determined? Why is ordering level fixed?

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5. What do you mean by labour turnover? How can it be measured? State any four reasons of labour turnover.

6

**Or,**

The standard hours of job X is 400 hours. The job has been completed by Amar in 240 hours and Akbar in 280 hours. The bonus system applicable to the job is as follows :

<u>Percentage of Time saved to time allowed</u>	<u>Bonus</u>
Savings up to 10%	10% of Time saved
From 11% to 20%	15% of Time saved
From 21% to 40%	20% of Time saved
From 41% to 100%	25% of Time saved

The rate of pay is ₹ 24 per hour. Calculate the total earnings of each worker.

6

### Group - B

6. From the particulars furnished below compute the machine hour rate :

	₹	
Cost of machine	90,000	
Cost of installations	10,000	
Scrap value at the end of 10 years	5,000	
Indirect wages & materials for the machine	500	p.a.
Supervision cost for 4 similar machines	16,000	p.a.
Insurance premium for the machine	200	per quarter
Rent of the machine shop	400	p.m.
Electricity cost for the machine shop	100	p.m.

Power consumption of the machine is 20 units per actual working hour. Power cost is ₹ 0.50 per unit. The total area of the machine shop is 600 square metres of which this machine occupies only 150 square metres. There are 200 light points in the machine shop of equal wattage of which this machine utilizes only 40 points.

It is estimated that the machine will normally work for 2700 hours in a year, but it is apprehended that the machine will remain idle for 200 hours. 10

7. From the following particulars relating to production and sales for the year ended 30.06.20, prepare a cost statement showing therein (i) Prime cost, (ii) Works Cost, (iii) Cost of Production, (iv) Cost of Sales and (v) Profit per unit.

	₹		₹
Raw Materials (01.07.19)	12,500	Direct labour	1,35,000
W.I.P. (01.07.19)	18,000	Office expenses ₹ 2 p.u.	—
Finished Goods (01.07.19) 8000 units	94,000	Selling Expenses ₹ 1 p.u.	—
Material purchased	1,10,000	Distribution Expenses	15,000
Freight on material	5,000	Sales (28,000 units)	4,00,000
Loss of material by fire	5,000	Raw materials (30.06.20)	20,000
Factory expenses	70,000	W.I.P. (30.06.20)	16,000
Chargeable expense	25,000	Finished Goods (30.06.20)-10000 units	—

Assume sales are made on FIFO basis. 10

8. The following particulars relate to a contract undertaken by a firm of engineers during the year 2020-2021

(figures in ₹)

Materials consumed during 2020-2021	65,000	Materials in hand on 31.03.21	1,800
Labour	24,000	Wages outstanding	2,500
Plant at cost	15,000	Value of plant on 31.03.21	10,000
Direct expenses	3,000	Contract price	2,00,000
Establishment expenses	4,000	Materials returned to store	500
Cash received (80% of work certified)	1,00,000	Cost of work uncertified	16,000
Contract price	2,00,000		

Prepare Contract Account for the year 2020-2021. 10

9. BC Ltd. produced three chemicals during a month by three consecutive processes. In each process 2% of the total weight put in is lost and 10% is scrap.

The products of three processes are dealt with as follows :

	Process I	Process II	Process III
Passed on to next process	75%	50%	
Sent to warehouse for sale	25%	50%	100%
Expenses incurred :			
Raw materials (₹)	1,20,000 (1,000 tons)	28,000 (140 tons)	1,07,840 (1,348 tons)
Manufacturing wages (₹)	20,500	18,520	15,000
General expenses (factory) (₹)	10,300	7,240	3,100

Prepare Process Account showing the cost per ton of each product.

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*Or,*

A transport company operates 5 buses between two towns, which are 50-km apart. Seating capacity of each bus is 50 passengers. The following particulars are obtained from their books for April 2021 :

Wages and salaries	₹ 42,500	Diesel and other oil	₹ 50,000	Repair and maintenance	₹ 10,000
Tax and insurance	₹ 20,000	Depreciation	₹ 32,500	Interest and other charges	₹ 25,000

Actual passengers carried were 80% of the seating capacity. On an average 20% of the buses remain idle for routine maintenance. Each bus made one round trip per day. Find the cost per passenger km.

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10. Prepare a Cash Budget for the three months ending 30th June, 2021 from the information given below :

(a)	Month	Sales (₹)	Materials (₹)	Wages (₹)	Overheads (₹)
	February	14,000	9,600	3,000	1,700
	March	15,000	9,000	3,000	1,900
	April	16,000	9,200	3,200	2,000
	May	17,000	10,000	3,600	2,200
	June	18,000	10,400	4,000	2,300

- (b) 10% of the sales are in cash.

- (c) Credit terms are :

Debtors – 50% of the credit sales are collected next month and the balance in the following month.  
Creditors – for materials – 2 months; for wages – ¼ month; for overheads – ½ month.

- (d) Plant and Machinery will be installed in February, 2021 at a cost of ₹ 96,000. The monthly instalment of ₹ 2,000 is payable from April onwards.
- (e) Dividend @ 5% on Preference Share Capital of ₹ 2,00,000 will be paid on 1st June.
- (f) Advance to be received for sale of vehicles of ₹ 9,000 in June.
- (g) Dividend from investments amounting to ₹ 1,000 is expected to be received in June.

( 5 )

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(h) Income Tax (advance) to be paid in June of ₹ 2,000.

(i) Cash and Bank balance on 01.04.2021 is expected to be ₹ 6,000.

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**Or,**

The Standard Mix to produce one unit of product *Gemini* is as follows :

Material A :	60 units @ ₹ 15 per unit	₹ 900
Material B :	80 units @ ₹ 20 per unit	₹ 1,600
Material C :	100 units @ ₹ 25 per unit	₹ 2,500
	<u>240 units</u>	<u>₹ 5,000</u>

During the month of April, 10 units of *Gemini* were actually produced and consumption was as follows :

Material A :	640 units @ ₹ 17.50 per unit	₹ 11,200
Material B :	950 units @ ₹ 18.00 per unit	₹ 17,100
Material C :	870 units @ ₹ 27.50 per unit	₹ 23,925
	<u>2,460 units</u>	<u>₹ 52,225</u>

Calculate all material variances.

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11. A company is able to sell its only product for ₹ 12 per unit. Variable costs of production are ₹ 7 per unit. Fixed costs total ₹ 80,000 p.a.

You are required to calculate :

(a) P/V Ratio.

(b) Number of units to break-even.

(c) Sales at break-even point.

(d) What number of units will need to be sold to earn a profit of ₹ 30,000?

2+3+2+3

**Or,**

The following set of information is supplied to you :

	Product X	Product Y
Direct material per unit (₹) – @ ₹ 5 per kg	20	10
Direct wages per unit (₹)	6	7.50
Variable overhead – 100% of direct wages and Fixed overhead – ₹ 1600		
Selling price per unit (₹)	40	30

Comment on the profitability of each product when :

(a) Total sales value is limited, (b) Units sale is limited, (c) Raw material is in short supply,

(d) Production capacity is the limiting factor.

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**Please Turn Over**

12. From the following figures, prepare a reconciliation statement :

<b>Particulars</b>	<b>₹</b>
Net Profit as per cost accounts	66,760
Net Profit as per financial accounts	65,120
Factory overhead under recovered in cost accounts	5,700
Administration overhead recovered in excess	4,250
Depreciation charged in financial accounts	3,660
Depreciation recovered in cost accounts	3,950
Interest received not included in cost accounts	450
Income tax provided in financial accounts	230
Stores adjustment (credited in financial books)	420
Dividend appropriated in financial accounts	860
Loss due to theft provided only in financial books	260

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