

MOCK TEST -5

(FULL SYLLABUS)

PAPER – 3: COST AND MANAGEMENT ACCOUNTING

Question No. 1 is compulsory.

Attempt any **four** questions out of the remaining **five** questions.

In case, any candidate answers extra question(s)/ sub-question(s) over and above the required number, then only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.

Working notes should form part of the answer

Time Allowed – 3 Hours

Maximum Marks – 100

1. Answer the following:

- (a) From the following information, CALCULATE employee turnover rate using – (i) Separation Method, (ii) Replacement Method, (iii) New Recruitment Method, and (iv) Flux Method :

No. of workers as on 01.04.2020 = 3,800

No. of workers as on 31.03.2021 = 4,200

During the year, 40 workers left while 160 workers were discharged and 600 workers were recruited during the year; of these, 150 workers were recruited because of exits and the rest were recruited in accordance with expansion plans.

- (b) A company uses three raw materials Pi, Qu and Ar for a particular product for which the following data applies:

Raw Material	Usage per unit of product (Kg.)	Re-order Quantity (Kg.)	Price per Kg. (Rs.)	Delivery period (in weeks)			Re-order level (Kg.)	Minimum level (Kg.)
				Minimum	Average	Maximum		
Pi	5	10,000	0.10	1	2	3	8,000	?
Qu	2	5,000	0.30	3	4	5	4,750	?
Ar	3	10,000	0.15	2	3	4	?	2,000

Weekly production varies from 350 to 450 units, averaging 400 units of the said product.

WHAT would be the following quantities:

- (i) Minimum Stock of Pi?
- (ii) Maximum Stock of Qu?
- (iii) Re-order level of Ar?

- (iv) Average stock level of Pi?
- (c) The following particulars refer to process used in the treatment of material subsequently, incorporated in a component forming part of an electrical appliance:
- (i) The original cost of the machine used (Purchased in June 2013) was Rs. 1,00,000. Its estimated life is 10 years, the estimated scrap value at the end of its life is Rs.1 0,000, and the estimated working time per year (50 weeks of 44 hours) is 2,200 hours of which machine maintenance etc., is estimated to take up 200 hours.
No other loss of working time expected, setting up time, estimated at 100 hours, is regarded as productive time. (Holiday to be ignored).
 - (ii) Electricity used by the machine during production is 16 units per hour at cost of a 90 paise per unit. No current is taken during maintenance or setting up.
 - (iii) The machine required a chemical solution which is replaced at the end of week at a cost of Rs. 200 each time.
 - (iv) The estimated cost of maintenance per year is Rs.12,000.
 - (v) Two attendants control the operation of machine together with five other identical machines. Their combined weekly wages, insurance and the employer's contribution to holiday pay amount Rs. 1,200.
 - (vi) Departmental and general works overhead allocated to this machine for the current year amount to Rs. 20,000.
You are required to CALCULATE the machine hour rate of operating the machine.

- (d) An article passes through three successive operations from raw materials stage to the finished product stage. The following data are available from the production records for the month of March, 2021:

Operation	No. of pieces (Input)	No. of pieces (Rejected)	No. of pieces (Output)
1	1,80,000	60,000	1,20,000
2	1,98,000	18,000	1,80,000
3	1,44,000	24,000	1,20,000

- (i) DETERMINE the input required to be introduced in the first operation in no. of pieces in order to obtain finished output of 500 pieces after the last operation.
- (ii) CALCULATE the cost of raw material required to produce one piece of finished product, if the weight of the finished piece is 0.5 kg. and the price of raw material is Rs. 80 per kg.
(5 Marks × 4 = 20 Marks)

2. (a) RVP Cinema provides the following data for the year 2020-21:

Particulars	Premium Hall (Rs.)	Recliner Hall (Rs.)	7D Hall (Rs.)	Cafeteria (Rs.)
Revenue	11,55,000	18,75,000	9,30,000	5,25,000
Cost of Goods sold	-	-	-	4,51,125
Digital media cost	6,19,800	9,46,875	4,02,900	-
Number of Credit Card transactions	75,000	90,000	60,000	45,000
Number of Tests	12,000	18,000	15,000	7,500
Number of Setups	225	450	150	75
Area in Square feet	3,000	4,500	2,250	750

Number of Customer contacts	2,62,500	3,00,000	1,50,000	37,500
Number of Customer online orders	2,10,000	2,47,500	1,20,000	22,500

Cost analysis has revealed the following:

Activity	Activity Cost (Rs.)	Activity Driver	Activity Capacity
Marketing Expenses	2,25,000	Number of Customer contacts	7,50,000
Website Maintenance Expenses	1,50,000	Number of Customer online orders	6,00,000
Credit Card Processing Fees	1,35,000	Number of Credit Card transactions	2,70,000
Cleaning Equipment Cost	3,15,000	Number of square feet	10,500
Inspecting and testing costs	2,62,500	Number of tests	52,500
Setting up machine's costs	4,50,000	Number of set-ups	900

Required:

- (i) If RVP Cinema allocates all costs (other than Cost of Goods sold and Digital Media costs) to the departments on the basis of Activity Based Costing system, CALCULATE the operating income and percentage of operating income of each department.
- (ii) RVP Cinema operated for years under the assumption that profitability can be increased by increasing net revenue from Cafeteria. However, the Supervisor of RVP Cinema wants to shut down Cafeteria. On the basis of (i) above, STATE whether the contention of the Supervisor is valid or not. **(10 Marks)**
- (b) Zed Limited obtained a contract No. 1551 for Rs. 150 lacs. The following details are available in respect of this contract for the year ended March 31, 2021:

	Rs.
Materials purchased	4,80,000
Materials issued from stores	15,00,000
Wages paid	21,00,000
Drawing and maps	1,80,000
Sundry expenses	45,000
Electricity charges	75,000
Plant hire expenses	1,80,000
Sub-contract cost	60,000
Materials returned to stores	90,000
Materials returned to suppliers	60,000

The following balances relating to the contract No. 1551 for the year ended on March 31, 2020 and March 31, 2021 are available:

	as on 31st March, 2020	as on 31st March, 2021
Work certified	36,00,000	1,05,00,000
Work uncertified	60,000	1,20,000
Materials at site	45,000	90,000
Wages outstanding	30,000	60,000

The contractor receives 70% of work certified in cash.
PREPARE Contract Account and Contractee's Account.

(10 Marks)

3. (a) The following figures have been taken from the financial accounts of a manufacturing firm for the year ended 31st March, 2021:

	(Rs.)
Direct material consumption	20,00,000
Direct wages	12,00,000
Factory overheads	6,40,000
Administrative overheads	2,80,000
Selling and distribution overheads	3,84,000
Bad debts	32,000
Preliminary expenses written off	16,000
Legal charges	4,000
Dividend received	40,000
Interest on fixed deposit	8,000
Sales - 48,000 units	48,00,000
Closing stock:	
- Finished stock - 4,000 units	3,20,000
- Work-in-process	96,000

The cost accounts for the same period reveal that the Direct Material consumption was Rs. 22,40,000; Factory overhead is recovered at 20% on prime cost; Administration overhead is recovered @ Rs. 4.8 per unit of production; and Selling and Distribution overheads are recovered at Rs. 6.40 per unit sold.

Required:

PREPARE Costing and Financial Profit & Loss Accounts and RECONCILE the difference in the profit as arrived at in the two sets of accounts. **(10 Marks)**

- (b) Mix Soap Pvt. Ltd., manufactures three brands of soap – Luxury, Herbal and Beauty. The following information has been obtained for the period from June 1 to June 30, 2021 relating to three brands:

	Luxury	Herbal	Beauty
Actual Production (units)	6,750	14,000	77,500
Wages paid (Rs.)	7,500	18,750	1,15,000
Raw materials consumed (Rs.)	20,000	47,000	2,40,000
Selling price per unit (Rs.)	25	15	8

Other data are:

Factory overheads	Rs. 80,000
General & administration overheads (equal for all)	Rs. 48,000
Selling price per unit (Rs.)	20% of works cost

If the company limits the manufacture to just one brand of soap adopting a single brand production, then monthly production will be:

	Units
Luxury	5,000
Herbal	15,000
Beauty	30,000

Further, factory overheads are to be allocated to each brand on the basis of the units which could have been produced when single brand production was in operation.

You are required to:

- (i) FIND out the Factory overhead rate for all the brands.
- (ii) PREPARE a cost statement for the month of June showing the various elements of cost and also the profit earned. **(10 Marks)**

4. (a) Harry Transport Service is a Delhi based national goods transport service provider, owning five trucks for this purpose. The cost of running and maintaining these trucks are as follows:

Particulars	Amount
Diesel cost	Rs.15 per km.
Engine oil	Rs. 4,200 for every 14,000 km.
Repair and maintenance	Rs.12,000 for every 10,000 km.
Driver's salary	Rs. 20,000 per truck per month
Cleaner's salary	Rs. 7,000 per truck per month
Supervision and other general expenses	Rs.15,000 per month
Cost of loading of goods	Rs. 200 per Metric Ton (MT)

Each truck was purchased for Rs. 20 lakhs with an estimated life of 7,20,000 km.

During the next month, it is expecting 6 bookings, the details of which are as follows:

S.No.	Journey	Distance (in km)	Weight - Up (in MT)	Weight - Down (in MT)
1.	Delhi to Kochi	2,700	15	7
2.	Delhi to Guwahati	1,890	13	0
3.	Delhi to Vijayawada	1,840	16	0
4.	Delhi to Varanasi	815	11	0
5.	Delhi to Asansol	1,280	13	5
6.	Delhi to Chennai	2,185	11	9
	Total	10,710	79	21

Required:

- (i) CALCULATE the total absolute Ton-km for the next month.
- (ii) CALCULATE the cost per ton-km. **(10 Marks)**

(b) The following information relates to Process Q:

(i)	Opening Work-in-Progress	16,000 units at Rs.1,50,000
	Degree of Completion:	
	Material	100%
	Labour and Overhead	60%
(ii)	Input - 3,64,000 units	Rs. 14,75,000
(iii)	Wages paid	Rs. 6,81,200
(iv)	Overheads paid	Rs. 3,40,600
(v)	Units scrapped	28,000
	Degree of Completion:	
	Material	100%
	Labour and Overhead	80%

(vi)	Closing Work - in- Progress	36,000 units
	Degree of Completion:	
	Material	100%
	Labour and Overhead	70%
(vii)	Units completed and transferred to next process	3,16,000
(viii)	Normal loss is 5% of total input including opening WIP	
(ix)	Scrap value is Rs. 5 per unit to be adjusted out of direct material cost	

You are required to COMPUTE on the basis of FIFO:

- (i) Equivalent production
- (ii) Cost per unit
- (iii) Value of units transferred to next process **(10 Marks)**
- (iv)

5. (a) Following data is available from the costing department of Aarya Ltd. which manufactures and markets a single product:

Material	Rs. 32 per unit	Fixed Cost (Rs.)	Rs. 10,00,000
Conversion Cost (Variable)	Rs. 24 per unit	Present Sales (units)	90,000
Dealer's Margin (10% of Sales)	Rs. 8 per unit	Capacity Utilization	60 %
Selling Price	Rs. 80 per unit		

There is acute competition in the market, thus extra efforts are necessary to enhance the sales. For this, following suggestions have been proposed:

- (i) Reducing selling price by 5 per cent.
- (ii) Increasing dealer's margin by 20 per cent over the existing rate.

Which of these two suggestions would you RECOMMEND, if the company desires to maintain the present profit? GIVE REASONS. **(10 Marks)**

(b) Tricon Co. furnishes the following information for the month of September, 2020.

Particulars	Budget Details	Static Budget	Actual
Units produced & Sold		4,000	3,200
		(Rs.)	(Rs.)
Direct Material	3 kg p.u. @ Rs. 30 per kg.	3,60,000	3,10,000
Direct Labour	1 hr. p.u. @ Rs. 72 per hr.	2,88,000	2,25,600
Variable Overhead	1 hr. p.u. @ Rs. 44 per hr.	1,76,000	1,47,200
Fixed Overhead		1,80,000	1,68,000
Total Cost		10,04,000	8,50,800
Sales		12,00,000	8,96,000
Profit		1,96,000	45,200

During the month 10,000 kg. of materials and 3,100 direct labour hours were utilized.

Required:

- (i) PREPARE a flexible budget for the month.
- (ii) DETERMINE the material usage variance and the direct labour rate variance for the actual vs the flexible budget. **(10 Marks)**

6. (a) DISTINGUISH between cost control and cost reduction.
- (b) EXPLAIN the advantages that would accrue in using the LIFO method of pricing for the valuation of raw material stock.
- (c) DISCUSS basic assumptions of Cost Volume Profit analysis.
- (d) DESCRIBE the steps necessary for establishing a good budgetary control system.

(4 × 5 = 20 Marks)