Test Series: October, 2020

MOCK TEST PAPER

INTERMEDIATE (NEW): GROUP – I

PAPER – 3: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the remaining **five** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. Answer the following:

(a) A jobbing factory has undertaken to supply 300 pieces of a component per month for the ensuing six months. Every month a batch order is opened against which materials and labour hours are booked at actual. Overheads are levied at a rate per labour hour. The selling price contracted for is ₹ 8 per piece. From the following data CALCULATE the cost and profit per piece of each batch order and overall position of the order for 1,800 pieces.

Month	Batch Output	Material cost	Direct wages	Direct labour
		(₹)	(₹)	hours
January	310	1150	120	240
February	300	1140	140	280
March	320	1180	150	280
April	280	1130	140	270
May	300	1200	150	300
June	320	1220	160	320

The other details are:

Month	Chargeable expenses	Direct labour
	(₹)	(Hours)
January	12,000	4,800
February	10,560	4,400
March	12,000	5,000
April	10,580	4,600
May	13,000	5,000
June	12,000	4,800

(b) A company deals in trading of a toy car *'Terminato'*. The annual demand for the toy car is 9,680 units. The company incurs fixed order placement and transportation cost of ₹ 200 each time an order is placed. Each toy costs ₹ 400 and the trader has a carrying cost of 20 percent p.a.

The company has been offered a quantity discount of 5% on the purchase of *'Terminato'* provided the order size is 4,840 units at a time.

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Required:

(i) COMPUTE the economic order quantity

(ii) STATE whether the quantity discount offer can be accepted.

(c) *'Mirror Look',* a high gloss wooden manufacturing company, requires you to PREPARE the Master budget for the next year from the following information:

Sales:	
Acrylic finish wooden sheets	₹ 70,00,000
Lacquer finish wooden sheets	₹ 30,00,000
Direct material cost	65% of sales
Direct wages	25 workers @ ₹ 1,500 per month
Factory overheads:	
Indirect labour –	
Works manager	₹ 5,500 per month
Foreman	₹ 4,500 per month
Stores and spares	2.5% on sales
Depreciation on machinery	₹ 1,26,000
Light and power (fixed)	₹ 30,000
Repairs and maintenance	₹ 80,000
Others sundries	10% on direct wages
Administration, selling and distribution expenses	₹ 3,99,000 p.a.

(d) *'Buttery Butter'* is engaged in the production of Buttermilk, Butter and Ghee. It purchases processed cream and let it through the process of churning until it separates into buttermilk and butter. For the month of January, 2020, *'Buttery Butter'* purchased 50 Kilolitre processed cream @ ₹ 100 per 1000 ml. Conversion cost of ₹ 1,00,000 were incurred up-to the split off point, where two saleable products were produced i.e. buttermilk and butter. Butter can be further processed into Ghee.

The January, 2020 production and sales information is as follows:

Products	Production (in Kilolitre/tonne)	Sales Quantity (in Kilolitre/tonne)	Selling price per Litre/Kg (₹)
Buttermilk	28	28	30
Butter	20	—	—
Ghee	16	16	480

All 20 tonne of butter were further processed at an incremental cost of ₹ 1,20,000 to yield 16 Kilolitre of Ghee. There was no opening or closing inventories of buttermilk, butter or ghee in January, 2020.

Required:

(i) SHOW how joint cost would be apportioned between Buttermilk and Butter under Estimated Net Realisable Value method.

(ii) *'Healthy Bones'* offers to purchase 20 tonne of butter in February at ₹ 360 per kg. In case *'Buttery Butter'* accepts this offer, no Ghee would be produced in February. SUGGEST whether *'Buttery Butter'* shall accept the offer affecting its operating income or further process butter to make Ghee itself? **[4 × 5 Marks = 20 Marks]**

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2. (a) Following data is extracted from the books of XYZ Ltd. for the month of January, 2020:

(i) Estimation-

Particulars	Quantity (kg.)	Price (₹)	Amount (₹)
Material-A	800	?	--
Material-B	600	30.00	18,000
			--

Normal loss was expected to be 10% of total input materials.

(ii) Actuals-

1480 kg of output produced.

Particulars	Quantity (kg.)	Price (₹)	Amount (₹)
Material-A	900	?	--
Material-B	?	32.50	--
			59,825

(iii) Other Information-

Material Cost Variance = ₹ 3,625 (F)

Material Price Variance = ₹ 175 (F)

You are required to CALCULATE:

(i) Standard Price of Material-A;

(ii) Actual Quantity of Material-B;

(iii) Actual Price of Material-A;

(iv) Revised standard quantity of Material-A and Material-B; and

(v) Material Mix Variance; **[10 Marks]**

(b) *CanCola*, a zero sugar cold drink manufacturing Indian company, is planning to establish a subsidiary company in Nepal to produce coconut flavoured juice. Based on the estimated annual sales of 60,000 bottles of the juice, cost studies produced the following estimates for the Nepalese subsidiary:

	Total Annual Costs (₹)	Percent of Total Annual Cost which is variable
Material	2,70,000	100%
Labour	1,97,000	80%
Factory Overheads	1,20,000	60%
Administration Expenses	52,000	35%

The Nepalese production will be sold by manufacturer's representatives who will receive a commission of 9% of the sale price. No portion of the Indian office expenses is to be allocated to the Nepalese subsidiary. You are required to-

(i) COMPUTE the sale price per bottle to enable the management to realize an estimated 20% profit on sale proceeds in Nepal.

(ii) CALCULATE the break-even point in rupees value sales and also in number of bottles for

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the Nepalese subsidiary on the assumption that the sale price is ₹ 14 per bottle.

[10 Marks]

3. (a) '*Healthy Sweets'* is engaged in the manufacturing of jaggery. Its process involve sugarcane crushing for juice extraction, then filtration and boiling of juice along with some chemicals and then letting it cool to cut solidified jaggery blocks.

The main process of juice extraction (Process – I) is done in conventional crusher, which is then filtered and boiled (Process – II) in iron pots. The solidified jaggery blocks are then cut, packed and dispatched. For manufacturing 10 kg of jaggery, 100 kg of sugarcane is required, which extracts only 45 litre of juice.

Following information regarding Process – I has been obtained from the manufacturing department of *Healthy Sweets* for the month of January, 2020:

		(₹)
Opening work-in process (4,500 litre)		
Sugarcane		50,000
Labour		15,000
Overheads		45,000
Sugarcane introduced for juice extraction (1,00,000 kg)		5,00,000
Direct Labour		2,00,000
Overheads		6,00,000
Abnormal Loss: 1,000 kg		
Degree of completion:		
Sugarcane	100%	
Labour and overheads	80%	
Closing work-in process: 9,000 litre		
Degree of completion:		
Sugarcane	100%	
Labour and overheads	80%	
Extracted juice transferred for filtering and boiling: 39,500 litre		

(Consider mass of 1 litre of juice equivalent to 1 kg)

You are required to PREPARE using average method:

(i) Statement of equivalent production,

(ii) Statement of cost,

(iii) Statement of distribution cost, and

(iv) Process-I Account. **[10 Marks]**

(b) In a factory, the basic wage rate is ₹ 300 per hour and overtime rates are as follows:

Before and after normal working hours	180% of basic wage rate
Sundays and holidays	230% of basic wage rate

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During the previous year, the following hours were worked	
- Normal time	1,00,000 hours
- Overtime before and after working hours	20,000 hours
Overtime on Sundays and holidays	5,000 hours
Total	1,25,000 hours

The following hours have been worked on job 'A'

Normal	1,000 hours
Overtime before and after working hrs.	100 hours.
Sundays and holidays	25 hours.
Total	1,125 hours

You are required to CALCULATE the labour cost chargeable to job 'A' and overhead in each of the following instances:

(i) Where overtime is worked regularly throughout the year as a policy due to the workers' shortage.

(ii) Where overtime is worked irregularly to meet the requirements of production.

(iii) Where overtime is worked at the request of the customer to expedite the job. **[10 Marks]**

4. (a) Aloe Ltd. has the capacity to produce 2,00,000 units of a product every month. Its works cost at varying levels of production is as under:

Level	Works cost per unit (₹)
10%	400
20%	390
30%	380
40%	370
50%	360
60%	350
70%	340
80%	330
90%	320
100%	310

Its fixed administration expenses amount to ₹ 3,60,000 and fixed marketing expenses amount to ₹ 4,80,000 per month respectively. The variable distribution cost amounts to ₹ 30 per unit.

It can sell 100% of its output at ₹ 500 per unit provided it incurs the following further expenditure:

(i) It gives gift items costing ₹ 30 per unit of sale;

(ii) It has lucky draws every month giving the first prize of ₹ 60,000; 2nd prize of ₹ 50,000, 3rd prize of ₹ 40,000 and ten consolation prizes of ₹ 5,000 each to customers buying the product.

(iii) It spends ₹ 2,00,000 on refreshments served every month to its customers;

(iv) It sponsors a television programme every week at a cost of ₹ 20,00,000 per month.

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It can market 50% of its output at ₹ 560 by incurring expenses referred from (ii) to (iv) above and 30% of its output at ₹ 600 per unit without incurring any of the expenses referred from (i) to (iv) above.

PREPARE a cost sheet for the month showing total cost and profit at 30%, 50% and 100% capacity level & COMPARE its profit. **[10 Marks]**

(b) A contractor has entered into a long term contract at an agreed price of ₹18,70,000 subject to an escalation clause for materials and wages as spelt out in the contract and corresponding actuals are as follows:

	Standard		Actual	
Materials	**Qty (tons)**	**Rate (₹)**	**Qty (tons)**	**Rate (₹)**
A	6,000	50.00	6,050	48.00
B	3,000	80.00	2,950	79.00
C	2,500	60.00	2,600	66.00
Wages	**Hours**	**Hourly Rate (₹)**	**Hours**	**Hourly Rate (₹)**
X	3,000	70.00	3,100	72.00
Y	2,500	75.00	2,450	75.00
Z	3,000	65.00	3,100	66.00

Reckoning the full actual consumption of material and wages, the company has claimed a final price of ₹ 18,94,100. Give your ANALYSIS of admissible escalation claim and indicate the final price payable. **[10 Marks]**

5. (a) A Ltd. manufactures two products- A and B. The manufacturing division consists of two production departments P_1 and P_2 and two service departments S_1 and S_2.

Budgeted overhead rates are used in the production departments to absorb factory overheads to the products. The rate of Department P_1 is based on direct machine hours, while the rate of Department P_2 is based on direct labour hours. In applying overheads, the pre-determined rates are multiplied by actual hours.

For allocating the service department costs to production departments, the basis adopted is as follows:

(i) Cost of Department S_1 to Department P_1 and P_2 equally, and

(ii) Cost of Department S_2 to Department P_1 and P_2 in the ratio of 2 : 1 respectively.

The following budgeted and actual data are available:

Annual profit plan data:

Factory overheads budgeted for the year:

Departments	P_1	27,51,000	S_1	8,00,000
	P_2	24,50,000	S_2	6,00,000

Budgeted output in units:

Product A 50,000; B 30,000.

Budgeted raw-material cost per unit:

Product A ₹ 120; Product B ₹ 150.

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Budgeted time required for production per unit:

Department P_1 : Product A : 1.5 machine hours

Product B : 1.0 machine hour

Department P_2 : Product A : 2 Direct labour hours

Product B : 2.5 Direct labour hours

Average wage rates budgeted in Department P_2 are:

Product A - ₹ 72 per hour and Product B – ₹ 75 per hour.

All materials are used in Department P_1 only.

Actual data (for the month of Jan, 2020):

Units actually produced: Product A : 4,000 units

Product B : 3,000 units

Actual direct machine hours worked in Department P_1:

On Product A 6,100 hours, Product B 4,150 hours.

Actual direct labour hours worked in Department P_2:

On Product A 8,200 hours, Product B 7,400 hours.

Costs actually incurred:		Product A		Product B
		₹		₹
Raw materials		4,89,000		4,56,000
Wages		5,91,900		5,52,000
Overheads: Department	P_1	2,50,000	S_1	80,000
	P_2	2,25,000	S_2	60,000

You are required to:

(i) COMPUTE the pre-determined overhead rate for each production department.

(ii) PREPARE a performance report for Jan, 2020 that will reflect the budgeted costs and actual costs. **[10 Marks]**

(b) BABYSOFT is a global brand created by Bio-organic Ltd. The company manufactures three range of beauty soaps i.e. BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond. The budgeted costs and production for the month of December, 2019 are as follows:

	BABYSOFT- Gold		**BABYSOFT- Pearl**		**BABYSOFT- Diamond**	
Production of soaps (Units)	**4,000**		**3,000**		**2,000**	
Resources per Unit:	**Qty**	**Rate**	**Qty**	**Rate**	**Qty**	**Rate**
- Essential Oils	60 ml	₹ 200 / 100 ml	55 ml	₹ 300 / 100 ml	65 ml	₹ 300 / 100 ml
- Cocoa Butter	20 g	₹ 200 / 100 g	20 g	₹ 200 / 100 g	20 g	₹ 200 / 100 g
- Filtered Water	30 ml	₹ 15 / 100 ml	30 ml	₹ 15 / 100 ml	30 ml	₹ 15 / 100 ml
- Chemicals	10 g	₹ 30 / 100 g	12 g	₹ 50 / 100 g	15 g	₹ 60 / 100 g
- Direct Labour	30 minutes	₹ 10 / hour	40 minutes	₹ 10 / hour	60 minutes	₹ 10 / hour

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Bio-organic Ltd. followed an Absorption Costing System and absorbed its production overheads, to its products using direct labour hour rate, which were budgeted at ₹ 1,98,000.

Now, Bio-organic Ltd. is considering adopting an Activity Based Costing system. For this, additional information regarding budgeted overheads and their cost drivers is provided below:

Particulars	(₹)	Cost drivers
Forklifting cost	58,000	Weight of material lifted
Supervising cost	60,000	Direct labour hours
Utilities	80,000	Number of Machine operations

The number of machine operators per unit of production are 5, 5, and 6 for BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond respectively.

(Consider (i) Mass of 1 litre of Essential Oils and Filtered Water equivalent to 0.8 kg and 1 kg respectively (ii) Mass of output produced is equivalent to the mass of input materials taken together.)

You are requested to:

(i) PREPARE a statement showing the unit costs and total costs of each product using the absorption costing method.

(ii) PREPARE a statement showing the product costs of each product using the ABC approach.

(iii) STATE what are the reasons for the different product costs under the two approaches?

[10 Marks]

6. Answer **any four** of the following:

(a) DISCUSS the steps to be followed to exercise control over cost.

(b) DISTINGUISH between Bill of Materials and Material Requisition Note.

(c) LIST five financial expenses that causes differences in Financial and Cost Accounts.

(d) EXPLAIN standing charges and running charges in the case of transport organisations. LIST three examples of both.

(e) DESCRIBE objectives of Budgetary Control System. **[4 × 5 = 20 Marks]**

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