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TEST- 6

CA INTER

(10-09-2023)

COST AND MANAGEMENT ACCOUNTING

FULL SYLLABUS

Roll No ...645234.....

Total No. of Question: 5

Time allowed: 3 hours

Total No. of Printed Pages: 7

Maximum Marks: 100

Answer to 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 valued.

All Questions are compulsory.

Working notes should form part of the answer.

Q. 1(a).**[5 Marks]**

A Limited a toy company purchases its requirement of raw material from S Limited at ₹ 120 per kg. The company incurs a handling cost of ₹ 400 plus freight of ₹ 350 per order. The incremental carrying cost of inventory of raw material is ₹ 0.25 per kg per month. In addition the cost of working capital finance on the investment in inventory of raw material is ₹ 15 per kg per annum. The annual production of the toys is 60,000 units and 5 units of toys are obtained from one kg. of raw material.

Required:

- Calculate the Economic Order Quantity (EOQ) of raw materials.
- Advise, how frequently company should order to minimize its procurement cost. Assume 360 days in a year.
- Calculate the total ordering cost and total inventory carrying cost per annum as per EOQ.

Q. 1(b).**[5 Marks]**

PQR Limited has replaced 72 workers during the quarter ended 31st March 2022. The labour rates for the quarter are as follows:

Flux method	16%
Replacement method	8%
Separation method	5%

You are required to ascertain:

- Average number of workers on roll (for the quarter),
- Number of workers left and discharged during the quarter,
- Number of workers recruited and joined during the quarter,
- Equivalent employee turnover rates for the year

Q. 1(c).**[5 Marks]**

Top-tech a manufacturing company is presently evaluating two possible machines for the manufacture of superior Pen-drives. The following information is available:

Particulars	Machine A	Machine B
Selling price per unit	₹ 400.00	₹ 400.00
Variable cost per unit	₹ 240.00	₹ 260.00
Total fixed costs per year	₹ 350 lakhs	₹ 200 lakhs
Capacity (in units)	8,00,000	10,00,000

Required:

- Recommend which machine should be chosen?
- Would you change your answer, if you were informed that in near future demand will be unlimited and the capacities of the two machines are as follows?
Machine A - 12,00,000 units
Machine B - 12,00,000 units
Why?

Q. 1(d).**[5 Marks]**

Coal is transported from two mines X & Y and unloaded at plots in a railway station. X is at distance of 15 kms and Y is at a distance of 20 kms from the rail head plots. A fleet of lorries having carrying capacity of 4 tonnes is used to transport coal from the mines. Records reveal that average speed of the lorries is 40 kms per hour when running and regularly take 15 minutes to unload at the rail head.

At Mine X average loading time is 30 minutes per load, while at mine Y average loading time is 25 minutes per load.

Additional Information:

Drivers' wages, depreciation, insurance and taxes, etc. ₹ 12 per hour

Operated Fuel, oil tyres, repairs and maintenance, etc. ₹ 1.60 per km

You are required to prepare a statement showing the cost per tonne kilometre of carrying coal from each mine 'X' and 'Y'

Q.2 (a)**[10 Marks]**

In a manufacturing company, the overhead is recovered as follows:

Factory Overheads: a fixed percentage basis on direct wages and Administrative overheads: a fixed percentage basis on factory cost.

The company has furnished the following data relating to two jobs undertaken by it in a period.

	Job 1 (₹)	Job 2 (₹)
Direct materials	1,08,000	75,000
Direct wages	84,000	60,000
Selling price	3,33,312	2,52,000
Profit percentage on total cost	12%	20%

You are required to:

- Compute the percentage recovery rates of factory overheads and administrative overheads.
- Calculate the amount of factory overheads, administrative overheads and profit for each of the two jobs.
- Using the above recovery rates, determine the selling price to be quoted for job 3. Additional data pertaining to Job 3 is as follows:

Direct materials	₹ 68,750
Direct wages	₹ 22,500
Profit percentage on selling price	15%

Q.2 (b)**[10 Marks]**

Paramount Constructions Limited is engaged in construction and erection of bridges under long term contracts. It has entered into a big contract at an agreed price of ₹ 250 Lakhs subject to an escalation clause for material and labour as spelt out in the contract and corresponding actual are as follows:

Material	Standard		Actual	
	Quantity Tonnes	Rate Per Tonne (₹)	Quantity Tonnes	Rate Per Tonne (₹)
P	2,800	1,500	3,000	1,750
Q	3,100	900	2,900	800
R	800	4,500	950	4,350
S	150	32,500	120	34,200
Labour	Hours	Hourly rate (₹)	Hours	Hourly rate (₹)
LM	65,000	60	61,500	70
LN	46,000	45	45,000	50

Required:

- Prepare a statement showing admissible additional claim of material and labour due to escalation clause.
- Determine the final price payable after admissible escalation claim.

Q.3 (a)**[10 Marks]**

SR Ltd. is a manufacturer of Garments. For the first three months of financial year 2022-23 commencing on 1st April 2022, production will be constrained by direct labour. It is estimated that only 12,000 hours of direct labour hours will be available in each month.

For market reasons, production of either of the two garments must be at least 25% of the production of the other. Estimated cost and revenue per garment are as follows:

	Shirt (₹)	Short (₹)
Sales price	60	44
Raw Materials		
Fabric @12 per metre	24	12
Dyes and cotton	6	4
Direct labour @ 8 per hour	8	4
Fixed Overhead @ 4 per hour	4	2
Profit	18	22

From the month of July 2022 direct labour will no longer be a constraint. The company expects to be able to sell 15,000 shirts and 20,000 shorts in July, 2022. There will be no opening stock at the beginning of July 2022.

Sales volumes are expected to grow at 10% per month cumulatively thereafter throughout the year.

Following additional information is available:

- The company intends to carry stock of finished garments sufficient to meet 40% of the next month's sale from July 2022 onwards.
- The estimated selling price will be same as above. Required:

(a) Calculate the number of shirts and shorts to be produced per month in the first quarter of financial year 2022-2023 to maximize company's profit.

(b) Prepare the following budgets on a monthly basis for July, August and September 2022:

- Sales budget showing sales units and sales revenue for each product.
- Production budget (in units) for each product.

Q. 3(b).**[10 Marks]**

The following data are available from the books and records of A Ltd. for the month of April 2022:

Particulars	Amount (₹)
Stock of raw materials on 1st April 2022	10,000
Raw materials purchased	2,80,000
Manufacturing wages	70,000
Depreciation on plant	15,000
Expenses paid for quality control check activities	4,000
Lease Rent of Production Assets	10,000
Administrative Overheads (Production)	15,000
Expenses paid for pollution control and engineering & maintenance	1,000
Stock of raw materials on 30th April 2022	40,000
Primary packing cost	8,000
Research & development cost (Process related)	5,000
Packing cost for redistribution of finished goods	1,500
Advertisement expenses	1,300

Stock of finished goods as on 1st April 2022 was 200 units having a total cost of ₹28,000. The entire opening stock of finished goods has been sold during the month.

Production during the month of April, 2022 was 3,000 units. Closing stock of finished goods as on 30th April, 2022 was 400 units.

You are required to:

1. Prepare a Cost Sheet for the above period showing the:
 - ✓ Cost of Raw Material consumed
 - ✓ Prime Cost
 - ✓ Factory Cost
 - ✓ Cost of Production
 - ✓ Cost of goods sold
 - ✓ Cost of Sales

2. Calculate selling price per unit, if sale is made at a profit of 20% on sales.

Q.4 (a)

[15 Marks]

STG Limited is a manufacturer of Chemical 'GK', which is required for industrial use. The complete production operation requires two processes. The raw material first passes through Process I, where Chemical 'G' is produced. Following data is furnished for the month April 2022

Particulars	(in kgs.)
Opening work-in-progress quantity (Material 100% and conversion 50% complete)	9,500
Material input quantity	1,05,000
Work Completed quantity	83,000
Closing work-in-progress quantity (Material 100% and conversion 60% complete)	16,500

You are further provided that:

Particulars	(in ₹)
Opening work-in-progress cost Material cost	29,500
Processing cost	14,750
Material input cost	3,34,500
Processing cost	2,53,100

Normal process loss may be estimated to be 10% of material input. It has no realizable value. Any loss over and above normal loss is considered to be 100% complete in material and processing.

The Company transfers 60,000 kgs. of output (Chemical G) from Process I to Process II for producing Chemical 'GK'. Further materials are added in Process II which yield 1.20 kg. of Chemical 'GK' for every kg. of Chemical 'G' introduced. The chemicals transferred to Process II for further processing are then sold as Chemical 'GK' for ₹ 10 per kg. Any quantity of output completed in Process I, are sold as Chemical 'G' @ ₹ 9 per kg.

The monthly costs incurred in Process II (other than the cost of Chemical 'G') are:

Input 60,000 kg. of Chemical 'G'

Materials Cost ₹ 85,000

Processing Costs ₹ 50,000

You are required:

- Prepare Statement of Equivalent production and determine the cost per kg. of Chemical 'G' in Process I using the weighted average cost method.
- Prepare a statement showing cost of Chemical 'G' transferred to Process II, cost of abnormal loss and cost of closing work-in progress.
- STG is considering the option to sell 60,000 kg. of Chemical 'G' of Process I without processing it further in Process-II. Will it be beneficial for the company over the current pattern of processing 60,000 kg in process-II?

(Note: You are not required to prepare Process Accounts)

Q.4 (b)**[5 Marks]**

Distinguish between Job costing and Process Costing. (Any five points of differences)

Q.5. (a)**[15 Marks]**

Star Limited manufacture three products using the same production methods. A conventional product costing system is being used currently. Details of the three products for a typical period are:

Product	Labour Hrs. per unit	Machine Hrs. per unit	Materials per Unit	Volume in Units
AX	1.00	2.00	35	7,500
BX	0.90	1.50	25	12,500
CX	1.50	2.50	45	25,000

Direct Labour costs ₹ 20 per hour and production overheads are absorbed on a machine hour basis. The overhead absorption rate for the period is ₹ 30 per machine hour

Management is considering using Activity Based Costing system to ascertain the cost of the products. Further analysis shows that the total production overheads can be divided as follows:

Particulars	%
Cost relating to set-ups	40
Cost relating to machinery	10
Cost relating to material handling	30
Costs relating to inspection	20
Total production overhead	100

The following activity volumes are associated with the product line for the period as a whole. Total activities for the period:

Product	No. of set-ups	No. of movements of Materials	No. of inspections
AX	350	200	200
BX	450	280	400
CX	740	675	900
Total	1,540	1,155	1,500

Required:

- Calculate the cost per unit for each product using the conventional method.
- Calculate the cost per unit for each product using activity based costing method.

Q.5. (b)**[5 Marks]**

Briefly explain the essential features of a good Cost Accounting System.

SPACE FOR ROUGH WORK