5/H–76 (xii) (Syllabus–2015)

2 0 1 8

(October)

COMMERCE

(Honours)

(Cost Accounting)

(BC–502)

Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. (a) Distinguish between Product Costs and Period Costs. 4

(b) Define cost object and give any two examples of it. 3

(c) A factory uses 4000 varieties of inventory. Classify these varieties of inventory as per ABC analysis from the following information :

No. of varieties in inventory	*Average value of inventory in percentage*	*Inventory usage in percentage (in end product)*
3875	10	10
110	20	15
15	70	75
4000	100	100

Assume the value of total inventory is ₹ 20,00,000. Also give reasons for your classification. 8

Or

(a) A company manufactures 5000 units of a product per month. The cost of placing an order is ₹ 100. The purchase price of raw material is ₹ 10 per unit. The reorder period is 4 to 8 weeks. The consumption of raw material varies from 100 units to 450 units per week. The average consumption per week is 275 units. The carrying cost of inventory is 20% per annum. Calculate—

(i) reorder quantity;

(ii) maximum level;

(iii) minimum level;

(iv) average level. 10

(b) State the importance of cost accounting in managerial decision making. 5

2\. *(a)* The following information relates to the Human Resource Department of Shillong Ltd. for the year ending 31st March, 2018 :

No. of workers at the beginning of the year	8000
No. of workers at the end of the year	9600
No. of workers left the company during the year	500
No. of workers discharged during the year	100
No. of workers replaced due to leaving and discharging	700
Additional workers employed for expansion during the year	1500

Calculate labour turnover rate using *(i)* separation method, *(ii)* replacement method and *(iii)* flux method. 6

(b) State with reasons, to what extent the following items are included in product cost of a manufacturing company, given that 'the costing is primarily done to fix the product prices' : 9

(i) Interest on borrowings

(ii) Bonus and gratuity

(iii) Research and development cost

(iv) Packing expenses

(v) Set-up time

(vi) Advertising

Or

(a) A manufacturing company has three production departments and two service departments. The summary of departmental expenses distributed is as under :

Production Departments	*Amount* ₹
P_1	30,000
P_2	28,000
P_3	25,000
	83,000
Service Departments	
S_1	9,000
S_2	11,000
	20,000

The expenses of service department (S_1) is equally charged to production departments P_1, P_2 and P_3 and service department S_2. On the other hand, expenses of S_2 are charged @ 20%, 30% and 30% to P_1, P_2 and P_3 respectively and the balance is charged to service department S_1.

Prepare a statement showing the apportionment of expenses of two service departments in production departments by simultaneous equation method. 12

(Continued)

(b) Distinguish between actual overhead rate and pre-determined overhead rate. 3

3\. *(a)* For a company for the month of March 2018, the output of Process—*A* was 50000 units. Normal loss allowed is 10% of input. Abnormal loss was 4000 units. The following further information is given as :

Input material @ ₹ 5 per unit

Labour—₹ 80,000

Overheads—₹ 67,000

Wastage realized @ ₹ 2·50 per unit

Prepare—

(i) Process—*A* A/c;

(ii) Abnormal Loss A/c. 5

(b) An enquiry for submission of quotation is received by a company. Bill of materials has been prepared by the production department for the job which states the following requirements :

Paper 10 reams @ ₹ 1,800 per ream

Ink and other printing material—₹ 5,000

Binding material and other consumables—₹ 3,000

Some photography is required for the job. The company decided to outsource it at a hire charge

(Turn Over)

of ₹ 10,000. Production department specified for following services for the job :

(i) 80 hours of Artist who is paid @ ₹ 12,000 p.m.

(ii) 75 hours of copywriter who is paid @ ₹ 10,000 p.m.

(iii) 30 hours of client servicing who is paid @ ₹ 9,000 p.m.

The primary packing material will be required for ₹ 4,000. Production overheads @ 40% of direct cost. Selling and distribution overheads @ 25% of production cost. The company expect to earn @ 20% profit on quoted price. Assume that 25 days in a month ϕ is worked at 6 hours daily.

Determine the price to be quoted for the job. 10

Or

(a) Distinguish between scrap and wastage. 3

(b) NBCC has entered into a contract for constructing an office building complex for government for ₹ 480 lakh. The work begun in April 2017 and is estimated to complete by June 2018. The work has progressed as scheduled and the actual

costs charged till March 2018 are as follows :

	(₹ in lakh)
Materials	112·20
Labour	12·00
Hire charges for equipments	20·00
Other charges	16·00
Establishment expenses	32·40

The following information is also available :

	(₹ in lakh)
Materials in hand as on 31st March, 2018	6·60
Work certified as on 21st March, 2018	400·00
Cash received @ 80% of work certified work yet not certified at 31st March, 2018	7·50

The company has estimated following further expenditure to complete the work :

	(₹ in lakh)
Material	10·50
Labour	16·00
Subcontractor's charges	20·00
Equipment hiring	2·00
Other charges	1·00
Establishment charges	6·90

Prepare Contract A/c showing the value of work-in-progress as on 31st March, 2018 after considering a reasonable profit margin. Make a provision for contingency @ 5% of total costs. 12

4. (a) Following informations are extracted from company X in the year 2017 for production and sales of 30000 units :

	₹
Sales	6,00,000
Material	2,00,000
Labour	1,20,000
Variable overheads	80,000
Fixed overheads	70,000

A forecast for the year 2018 has been made by the company that the price of material will increase by 5% while cost per unit of variable overheads will reduce by 2%. The other factors will remain the same. You are required to compute the—

(i) number of units to be sold to maintain the same amount of profit as it was in 2017;

(ii) margin of safety for both the years 2017 and 2018. 10

(b) Define P/V ratio and state how it can be improved. 5

Or

A company manufactures a product, currently utilizing 80% capacity with a turnover of ₹ 80,00,000 at unit selling price of ₹ 250. The cost data are as under :

Material cost—₹ 75 per unit

Labour cost—₹ 62·50 per unit

Semi-variable cost (including variable component ₹ 37·50 per unit)—₹ 18,00,000

Fixed cost ₹ 9,00,000 up to 80% of capacity and beyond this level an additional ₹ 2,00,000 is needed

(a) Calculate activity level at break-even point.

(b) Calculate the number of units to be sold so as to earn a profit of 8% of sales.

(c) Calculate activity level needed to earn a profit ₹ 9,50,000.

(d) What should be the selling price per unit, if break-even point is to be brought down to 40% of capacity? 15

5. (a) A building can be constructed by engaging a gang of workers as given below for 100 working days of 8 hours each :

	Skilled	*Semi-skilled*	*Unskilled*
No. of workers in the gang	6	8	6
Standard hourly wage rate (in ₹)	50	40	32

Actual completion of work however took 104 days of 8 hours each. This included 16 hours of stoppages due to heavy rain. The actual number of workers engaged and the actual rates paid are given below :

	Skilled	*Semi-skilled*	*Unskilled*
No. of workers engaged	8	6	6
Actual hourly wage rate (in ₹)	60	48	32

Calculate all possible labour variances. 10

(b) Budget is an aid to management and not a substitute for management. Comment. 5

Or

(a) Standard costing and budgetary control are interrelated but not interdependent. Comment. 5

(b) The following are the estimated sales of a company for eight months ending 30th November, 2018 :

2018	*Units*
April	24000
May	26000
June	18000
July	16000
August	20000
September	24000
October	28000
November	24000

(Continued)

As a matter of policy, the company maintains the closing balance of finished goods and raw materials are as follows :

(i) Finished goods—Closing stock of a month is 50% of the estimated sales for the next month

(ii) Raw material—Closing stock of a month is equal to estimated consumption for the next month

Each unit of production consumes 4 kg of raw material at ₹ 12 per kg. For the half year ending 30th September, 2018.

Prepare *(i)* monthwise production budget in units and *(ii)* monthwise raw material purchase budget in both units and cost. 10

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