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(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)* What is 'cost centre'? Briefly explain the main purposes of any three cost centres. 5

(b) What are chargeable expenses? In an industry, is it necessary to distinguish between prime cost, chargeable expenses and overheads? Justify. 6

(c) Distinguish between 'bin card' and 'stores ledger'. 4

Or

(a) From the following, calculate EOQ : 5

Annual demand 200000 units
Unit price—₹ 200
Ordering cost—₹ 200 per order
Storage cost @ 2% p.a.
Interest rate @ 8% p.a.
Lead time is half month

(b) From the following information, prepare stores ledger stating the value of issues under LIFO method : 10

Jan.	2, 2017	Opening balance	1000 kg	@ ₹ 300 per kg
"	3, 2017	Issued	140 kg	
"	4, 2017	Issued	200 kg	
"	8, 2017	Issued	160 kg	
"	13, 2017	Received from vendor	400 kg	@ ₹ 350 per kg
"	15, 2017	Returned of surplus from a work order	30 kg	@ ₹ 280 per kg
"	16, 2017	Issued	360 kg	
"	18, 2017	Received from vendor	600 kg	@ ₹ 320 per kg
"	20, 2017	Issued	550 kg	
"	22, 2017	Received from vendor	400 kg	@ ₹ 340 per kg
"	24, 2017	Issued	250 kg	

2. (a) The three workers *G*, *R* and *S* respectively produced 80, 100 and 120 pieces of a product *X* on a particular day in May, 2017 in a factory. The time allowed for 10 units of product *X* is 1 hour and their hourly rate is ₹ 40. Calculate for each of these workers—

(i) earnings for the day;

(ii) effective rate of earning per hour under Halsey Premium Bonus Plan and Rowan Premium Bonus Plan. 12

(b) Define 'under-absorption' and 'over-absorption' of overhead. 3

Or

(a) What is operating costing? Mention the name of any two industries, where this costing is applied. 3

(b) Calculate the comprehensive machine hour rate of a machine from the following : 12

Cost of the machine ₹ 25 lakhs having a scrap value of ₹ 1 lakh after its effective life of 10 years. The machine will be operated for three shifts of 7 hours each for 300 working days in a year of which 300 hours will be used for machine maintenance.

Wages payable ₹ 8,000 per month for an operator and ₹ 3,000 per month for a helper for every shift, a sum of ₹ 16,000 per month to one supervisor per shift for the department accommodating four machines including the above machine.

Power consumption 25 units (kWh) @ ₹ 4·80 per unit.

Repair and maintenance ₹ 30,000 per annum.

General lighting ₹ 4,000 per month for the whole department.

Rent and rate ₹ 3,000 per month for the whole department.

Factory overhead ₹ 36,000 per annum for the whole department.

3. (a) Determine the price to be quoted for a job from the following : 7

Paper 10 reams @ ₹ 1,800 per ream
Ink and other printing materials—₹ 5,000
Binding material and other consumables—₹ 3,000

Some photography is required for the job. The firm does not have a photographer as an employee. It decides to hire one by paying ₹ 10,000 to him. Estimated job card prepared by production department specifies that service of the following employees will be required for this job :

(i) Artist (₹ 12,000 p.m.) 80 hours

(ii) Copywriter (₹ 10,000 p.m.) 75 hours

(iii) Client servicing (₹ 9,000 p.m.) 30 hours

The primary packing material will be required to the tune of ₹ 4,000. Production overheads 40% of direct cost while the selling and distribution overheads are likely to be 25% on production cost. The firm expected a profit of 20% on the quoted price. The firm works 25 days in a month and 6 hours a day.

(b) Following is the Trial Balance of *S* Ltd. as on 31st December, 2016 :

	₹
Share Capital (₹ 10 each)	3,51,800
Profit and Loss Account (Cr.) as on 01.01.2016	25,000
Provision for Depreciation on Machinery	63,000
Cash received against Contract No. 7	12,80,000
Creditors	81,200
Land and Building (cost)	74,000
Machinery (cost)	1,62,000
Bank Balance (Dr.)	45,000
Materials consumed for Contract No. 7	6,00,000
Direct Labour for Contract No. 7	8,30,000
Expenses for Contract No. 7	40,000
Machinery sent at site for Contract No. 7	1,00,000

Contract No. 7 commences on 1st January, 2016. The contract price is ₹ 24,00,000 and the contractee has so far paid ₹ 12,80,000 being 80% of the work certified. The cost of work done since certification is estimated at ₹ 16,000.

On 31st December, 2016 after the above Trial Balance was extracted, the machinery costing ₹ 42,000 was returned to store and material then on site was valued at ₹ 27,000. Provision to be made for depreciation at 12·5% of cost.

Prepare Contract No. 7 Account. 8

Or

A company manufactures a chemical product by a series of operations in three processes. Raw material is fed into Process–I and the finished chemical that comes out of Process–III is transferred to the finished goods store. The following belongs to operations for April, 2017 :

	Process–I	*Process–II*	*Process–III*
Raw material issued (80000 kg)	₹ 9,60,000	—	—
Direct wages	₹ 1,25,600	₹ 1,72,000	₹ 1,42,500
Overhead costs	₹ 1,68,000	₹ 1,77,280	₹ 1,24,690
Normal loss (% of input)	3%	2%	1%
Output transferred to next process	74000 kg	69400 kg	69000 kg
Work-in-process	3000 kg	2400 kg	—

(100% complete but awaiting for transfer to next process)

Prepare process accounts and also abnormal loss and abnormal gain accounts. 15

4. *(a)* Define marginal costing. Critically evaluate the basic assumptions of marginal costing. 9

(b) A producer of wallets is earning a monthly post-tax profit of ₹ 6,00,000 when income-tax rate is 40%. Selling price of a wallet is ₹ 500 and unit variable cost is ₹ 300. How many more wallets the producer should produce and sell to earn same monthly post-tax profit; if the tax rate goes to 50%? 6

Or

(a) The following particulars are extracted from the records of *P* Ltd. :

	Product–A	*Product–B*
Unit sale price	₹ 100	₹ 120
Consumption of same raw material	2 kg	3 kg
Material cost	₹ 10	₹ 15
Direct wages cost (₹ 5 per hour)	₹ 15	₹ 10
Direct expenses	₹ 5	₹ 6
Machine hours used	3 hours	2 hours
Fixed overhead per unit	₹ 5	₹ 10
Variable overhead per unit	₹ 15	₹ 20

Comment on the profitability of each product when—

(i) total sales potential in units is limited;

(ii) total sales potential in value is limited;

(iii) raw material is in short supply;

(iv) machine hours is the limited factor. 12

(b) Differentiate between 'marginal costing' and 'absorption costing'. 3

5. *(a)* What are the possible causes of labour efficiency variance? 5

(b) Explain the steps of flexible budgeting. 5

(c) Describe the managerial use of variances. 5

Or

(a) "Budget is an aid to management, not a substitute for management." Comment. 5

(b) From the following information, calculate all possible material cost variances : 10

Materials	*Qty.*	*Standard Price* (per kg)	*Qty*	*Actual Price* (per kg)
A	4000 kg	₹ 4·50	20000 kg	₹ 4·00
B	2500 kg	₹ 3·50	12000 kg	₹ 4·00
C	3000 kg	₹ 3·00	13000 kg	₹ 2·50

Normal loss of output for standard is 10%. Actual production is 39000 kg.

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