Roll No.

Total No. of Questions – **6** | Total No. of Printed Pages – **12**

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

CARL

Answers 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.

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.

Marks

1. Answer the following : **4×5 =20**

(a) M/s. X Private Limited is manufacturing a special product which requires a component "SKY BLUE". The following particulars are available for the year ended 31st March, 2018 :

- Annual demand of "SKY BLUE" 12000 units
- Cost of placing an order ₹ 1,800
- Cost per unit of "SKY BLUE" ₹ 640
- Carrying cost per annum 18.75%

The company has been offered a quantity discount of 5% on the purchases of "SKY BLUE" provided the order size is 3000 components at a time.

You are required to

(i) Compute the Economic Order Quantity.

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

(b) A worker takes 15 hours to complete a piece of work for which time allowed is 20 hours. His wage rate is ₹ 5 per hour. Following additional information are also available :

Material cost of work	₹ 50
Factory overheads	100% of wages

Calculate the factory cost of work under the following methods of wage payments :

(i) Rowan Plan

(ii) Halsey Plan

(c) Following figures have been extracted from the books of M/s. RST Private Limited :

Financial Year	Sales (₹)	Profit/Loss (₹)
2016-17	4,00,000	15,000 (loss)
2017-18	5,00,000	15,000 (profit)

You are required to calculate :

(i) Profit Volume Ratio

(ii) Fixed Costs

(iii) Break Even Point

(iv) Sales required to earn a profit of ₹ 45,000.

(v) Margin of Safety in Financial Year 2017-18.

(d) GK Ltd. showed net loss of ₹ 2,43,300 as per their financial accounts for the year ended 31st March, 2018. However, cost accounts disclosed net loss of ₹ 2,48,300 for the same period. On scrutinizing both the set of books of accounts, the following information were revealed :

		₹
(i)	Works overheads over recovered	30,400
(ii)	Selling overheads under recovered	20,300
(iii)	Administrative overheads under recovered	27,700
(iv)	Depreciation over charged in cost accounts	35,100
(v)	Bad debts w/off in financial accounts	15,000
(vi)	Preliminary Exp. w/off in financial accounts	5,000
(vii)	Interest credited during the year in financial accounts	7,500

Prepare a reconciliation statement reconciling losses shown by financial and cost accounts by taking costing net loss as base.

Marks

2. (a) Following information relate to a manufacturing concern for the year ended 31st March, 2018 : **10**

	₹
Raw Material (opening)	2,28,000
Raw Material (closing)	3,05,000
Purchases of Raw Material	42,25,000
Freight Inwards	1,00,000
Direct wages paid	12,56,000
Direct wages-outstanding at the end of the year	1,50,000
Factory Overheads	20% of prime cost
Work-in-progress (opening)	1,92,500
Work-in-progress (closing)	1,40,700
Administrative Overheads (related to production)	1,73,000
Distribution Expenses	₹ 16 per unit
Finished Stock (opening) – 1217 units	6,08,500
Sale of scrap of material	8,000

The firm produced 14000 units of output during the year. The stock of finished goods at the end of the year is valued at cost of production. The firm sold 14153 units at a price of ₹ 618 per unit during the year.

Prepare cost sheet of the firm.

Marks

(b) XYZ Construction Company took a contract for construction of a stadium on 1st April, 2017 at a price of ₹ 160 lakhs. The relevant information for the year ended 31st March, 2018 are as under : **10**

	Amount (₹ in '000)
Material purchased for the contract	6,800
Direct wages paid	3,450
Salaries	200
Direct wages prepaid at the end of the year	50
Salaries outstanding at the end of the year	100
Material returned to stores	150
Material at site as on 31st March, 2018	175
Payment received from the contractee (80% of work certified)	9,440
Work done but not certified	500

A plant was purchased for ₹ 12,00,000 on 1st November, 2017 and was in use at the site upto 31st March, 2018. Depreciation is to be charged on plant @ 15% per annum on straight line basis. Material costing ₹ 50,000 was stolen from the site.

You are required to :

(i) Prepare contract account for the year ended 31st March, 2018 showing the profit to be taken to Profit & Loss Account.

(ii) Prepare Balance Sheet showing the relevant items.

Marks

3. (a) The information regarding number of employees on roll in a shopping mall for the month of December, 2017 are given below : **10**

Number of employees as on 01-12-2017	900
Number of employees as on 31-12-2017	1100

During December, 2017, 40 employees resigned and 60 employees were discharged. 300 employees were recruited during the month. Out of these 300 employees, 225 employees were recruited for an expansion project of the mall and rest were recruited due to exit of employees.

Assuming 365 days in a year, calculate Employee Turnover Rate and Equivalent Annual Employee Turnover Rate by applying the following :

(i) Replacement Method

(ii) Separation Method

(iii) Flux Method

(b) Alpha Ltd. is engaged in the production of a product A which passes through 3 different process – Process P, Process Q and Process R. The following data relating to cost and output is obtained from the books of accounts for the month of April 2017 : **10**

Particulars	Process P	Process Q	Process R
Direct Material	38,000	42,500	42,880
Direct Labour	30,000	40,000	50,000

Production overheads of ₹ 90,000 were recovered as percentage of direct labour.

Marks

10,000 kg of raw material @ ₹ 5 per kg. was issued to Process P. There was no stock of materials or work in process. The entire output of each process passes directly to the next process and finally to warehouse. There is normal wastage, in processing, of 10%. The scrap value of wastage is ₹ 1 per kg. The output of each process transferred to next process and finally to warehouse are as under :

Process P = 9,000 kg

Process Q = 8,200 kg

Process R = 7,300 kg

The company fixes selling price of the end product in such a way so as to yield a profit of 25% on selling price.

Prepare Process P, Q and R accounts. Also calculate selling price per unit of end product.

4. (a) PQR Pens Ltd. manufactures two products – 'Gel Pen' and 'Ball Pen'. **10**
It furnishes the following data for the year 2017 :

Product	Annual Output (Units)	Total Machine Hours	Total number of purchase orders	Total number of set-ups
Gel Pen	5,500	24,000	240	30
Ball Pen	24,000	54,000	448	56

Marks

The annual overheads are as under :

Particulars	₹
Volume related activity costs	4,75,020
Set up related costs	5,79,988
Purchase related costs	5,04,992

Calculate the overhead cost per unit of each Product – Gel Pen and Ball Pen on the basis of :

(i) Traditional method of charging overheads

(ii) Activity based costing method and

(iii) Find out the difference in cost per unit between both the methods.

(b) A group of 'Health Care Services' has decided to establish a Critical Care Unit in a metro city with an investment of ₹ 85 lakhs in hospital equipments. The unit's capacity shall be of 50 beds and 10 more beds, if required, can be added. **10**

Other information for a year are as under :

	(₹)
Building Rent	2,25,000 per month
Manager's Salary (Number of Managers – 03)	50,000 per month to each one
Nurses' Salary (Number of Nurses – 24)	18,000 per month to each Nurse

Marks

Word boys' Salary (Number of word boys – 24)	9000 per month per person
Doctor's Payment (Paid on the basis of number of patients attended and time spent by them)	5,50,000 per month
Food and laundry services (variable)	39,53,000 per year
Medicines to patients (variable)	22,75,000 per year
Administrative Overheads	28,00,000 per year
Depreciation on equipments	15% per annum on original cost

It was reported that for 200 days in a year 50 beds were occupied, for 105 days 30 beds were occupied and for 60 days 20 beds were occupied.

The hospital hired 250 beds at a charge of ₹ 950 per bed to accommodate the flow of patients. However, this never exceeded the normal capacity of 50 beds on any day.

Find out :

(i) Profit per patient day, if hospital charges on an average ₹ 2,500 per day from each patient.

(ii) Break even point per patient day

(Make calculation on annual basis)

Marks

5. (a) (i) The following details are provided by M/s. SKU Enterprises for the year ended 31st March, 2018 : 5

Particulars	Material – M (₹)	Material – N (₹)
Stock as on 01-04-2017	6,00,000	10,00,000
Stock as on 31-03-2018	4,50,000	7,25,000
Purchases during the year	9,50,000	18,40,000

You are required to :

(i) Calculate Turnover Ratio of both the materials.

(ii) Advise which of the two materials is fast moving.

(Assume 360 days in a year.)

(ii) Beta Ltd. is manufacturing Product N. This is manufactured by mixing two materials namely Material P and Material Q. The Standard Cost of Mixture is as under : 5

Material P 150 ltrs. @ ₹ 40 per ltr.

Material Q 100 ltrs. @ ₹ 60 per ltr.

Standard loss @ 20% of total input is expected during production.

The cost records for the period exhibit following consumption :

Material P 140 ltrs. @ ₹ 42 per ltr.

Material Q 110 ltrs. @ ₹ 56 per ltr.

Quantity produced was 195 ltrs.

Marks

Calculate :

(i) Material Cost Variance

(ii) Material Usage Variance

(iii) Material Price Variance

(b) PH Gems Ltd. is manufacturing readymade suits. It has annual production capacity of 2,000 pieces. The Cost Accountant has presented following information for the year to the management : **10**

Particulars	**Amount (₹)**	**Amount (₹)**
Sales 1,500 pieces @ ₹ 1,800 per piece		27,00,000
Direct Material	5,94,200	
Direct Labour	4,42,600	
Overheads (40% Fixed)	11,97,000	22,33,800
Net Profit		4,66,200

Evaluate following options :

(i) If selling price is increased by ₹ 200, the sales will come down to 60% of the total annual capacity. Should the company increase its selling price ?

(ii) The company can earn a profit of 20% on sales if the company provide TIEPIN with readymade suit. The cost of each TIEPIN is ₹ 18. Calculate the sales to earn a profit of 20% on sales.

Marks

6. Answer any **four** of the following : 4×5 =20

(a) Why are cost and management accounting information are required by the staff at operational level ? Describe.

(b) Explain 'Just In Time' (JIT) approach of inventory management.

(c) Why is 'Zero Base Budgeting' (ZBB) considered superior to 'Traditional Budgeting' ? Explain.

(d) Explain 'Job Costing' and 'Batch Costing'.

(e) Explain :

(i) Opportunity Cost

(ii) FIFO and LIFO method of stores issue.