(GI-5+7, GI-6, GI-8, GI-9, SI-2+4, SI-3 & VI-2)

DATE: 25.08.2019 **MAXIMUM MARKS: 100** **TIMING: 3¼ Hours**

PAPER : COSTING

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 who has not opted for Hindi Medium. His/her answer in Hindi will not be valued.

Question No. 1 is compulsory.

Candidates are also required to answer any Four questions from 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 best answered in the answer book shall be valued.

Wherever necessary, suitable assumptions may be made and disclosed by way of note.

Question 1:

(a) M Ltd. has an annual fixed cost of Rs. 98,50,000. In the year 20X8-X9, sales amounted to Rs. 7,80,60,000 as compared to Rs. 5,93,10,000 in the preceding year 20X7-X8. Profit in the year 20X8-X9 is Rs. 37,50,000 more than that in 20X7-X8.

Required:

(i) CALCULATE Break-even sales of the company;

(ii) DETERMINE profit/ loss on a forecasted sales volume of Rs. 8,20,00,000.

(iii) If there is a reduction in selling price by 10% in the financial year 20X8-X9 and company desires to earn the same amount of profit as in 20X7-X8, COMPUTE the required sales amount?

(5 Marks)

(b) Arnav Motors Ltd. manufactures pistons used in car engines. As per the study conducted by the Auto Parts Manufacturers Association, there will be a demand of 80 million pistons in the coming year. Arnav Motors Ltd. is expected to have a market share of 1.15% of the total market demand of the pistons in the coming year. It is estimated that it costs Rs. 1.50 as inventory holding cost per piston per month and that the set-up cost per run of piston manufacture is Rs. 3,500.

(i) DETERMINE the optimum run size for piston manufacturing?

(ii) Assuming that the company has a policy of manufacturing 40,000 pistons per run, CALCULATE how much extra costs the company would be incurring as compared to the optimum run suggested in (i) above?

(5 Marks)

(c) Following details are provided by M/s ZIA Private Limited for the quarter ending 30 September, 2018:

(i)	Direct expenses	Rs.	1,80,000
(ii)	Direct wages being 175% of factory overheads	Rs.	2,57,250
(iii)	Cost of goods sold	Rs.	18,75,000
(iv)	Selling & distribution overheads	Rs.	60,000
(v)	Sales	Rs.	22,10,000
(vi)	Administration overheads are 10% of factory overheads (Related with production)		

Stock details as per Stock Register:

Particulars	30.06.2018 (Rs.)	30.09.2018 (Rs.)
Raw material	2,45,600	2,08,000
Work-in-progress	1,70,800	1,90,000
Finished goods	3,10,000	2,75,000

You are required to prepare a cost sheet showing:
(i) Raw material consumed
(ii) Prime cost
(iii) Factory cost
(iv) Cost of goods sold
(v) Cost of sales and profit

(5 Marks)

(d) The following balances were extracted from a Company's ledger as on 30th June, 2018:

Particulars	Debit (Rs.)	Credit (Rs.)
Raw material control a/c	2,82,450	
Work-in-progress control a/c	2,38,300	
Finished stock control a/c	3,92,500	
General ledger adjustment a/c		9,13,250
Total	9,13,250	9,13,250

The following transactions took place during the quarter ended 30th September, 2018:

		Rs.
(i)	Factory overheads - allocated to work-in-progress	1,36,350
(ii)	Goods furnished - at cost	13,76,200
(iii)	Raw materials purchased	12,43,810
(iv)	Direct wages - allocated to work-in-progress	2,56,800
(v)	Cost of goods sold	14,56,500
(vi)	Raw materials - issued to production	13,60,430
(vii)	Raw materials - credited by suppliers	27,200
(viii)	Raw materials losses - inventory audit	6,000
(ix)	Work-in-progress rejected (with no scrap value)	12,300
(x)	Customer's returns (at cost) of finished goods	45,900

You are required to prepare:
(i) Raw material control a/c
(ii) Work-in-progress control a/c
(iii) Finished stock control a/c
(iv) General ledger adjustment a/c

(5 Marks)

Question 2:

(a) Aditya Agro Ltd. mixes powdered ingredients in two different processes to produce one product. The output of Process- I becomes the input of Process-II and the output of Process-II is transferred to the Packing department.
From the information given below, you are required to PREPARE accounts for Process-I, Process-II and Abnormal loss/ gain A/c to record the transactions for the month of February 20X9.

Process-I

Input:	
Material A	6,000 kilograms at Rs. 50 per kilogram
Material B	4,000 kilograms at Rs. 100 per kilogram
Labour	430 hours at Rs. 50 per hour
Normal loss	5% of inputs. Scrap are disposed off at Rs.16 per kilogram
Output	9,200 kilograms.

There is no work- in- process at the beginning or end of the month.

Process-II

Input:	
Material C	6,600 kilograms at Rs. 125 per kilogram
Material D	4,200 kilograms at Rs. 75 per kilogram
Flavouring Essence	Rs. 3,300
Labour	370 hours at Rs.50 per hour
Normal loss	5% of inputs with no disposal value
Output	18,000 kilograms.

There is no work-in-process at the beginning of the month but 1,000 kilograms in process at the end of the month and estimated to be only 50% complete so far as labour and overhead were concerned.
Overhead of Rs. 92,000 incurred to be absorbed on the basis of labour hours.

(10 Marks)

(b) A job can be executed either through workman A or B. A takes 32 hours to complete the job while B finishes it in 30 hours. The standard time to finish the job is 40 hours.
The hourly wage rate is same for both the workers. In addition workman A is entitled to receive bonus according to Halsey plan (50%) sharing while B is paid bonus as per Rowan plan. The works overheads are absorbed on the job at Rs. 7.50 per labour hour worked. The factory cost of the job comes to Rs. 2,600 irrespective of the workman engaged.
INTERPRET the hourly wage rate and cost of raw materials input. Also show cost against each element of cost included in factory cost.

(10 Marks)

Question 3:

(a) The following standards have been set to manufacture a product:

Direct Materials:	**(Rs.)**
2 units of X at Rs.40 per unit	80.00
3 units of Y at Rs. 30 per unit	90.00
15 units of Z at Rs.10 per unit	150.00
	320.00
Direct labour 3 hours @ Rs. 55 per hour	165.00
Total standard prime cost	485.00

The company manufactured and sold 6,000 units of the product during the year 20X8.
Direct material costs were as follows:
12,500 units of X at Rs. 44 per unit.
18,000 units of Y at Rs. 28 per unit.
88,500 units of Z at Rs.12 per unit.

The company worked 17,500 direct labour hours during the year 20X8. For 2,500 of these hours the company paid at Rs. 58 per hour while for the remaining hours the wages were paid at the standard rate.
Required:
COMPUTE the following variances:
Material Price, Material Usage, Material Mix, Material Yield, Labour Rate and Labour Efficiency.

(10 Marks)

(b) Linex Limited manufactures three products P, Q and R which are similar in nature and are usually produced in production runs of 100 units. Product P and R require both machine hours and assembly hours, whereas product Q requires only machine hours. The overheads incurred by the company during the first quarter are as under:

	Rs.
Machine Department expenses……	18,48,000
Assembly Departmentexpenses……	6,72,000
Setup costs……	90,000
Stores receiving cost……	1,20,000
Order processing and dispatch……	1,80,000
Inspect and Quality control cost……	36,000

The date related to the three products during the period are as under:

	P	**Q**	**R**
Units produced and sold	15,000	12,000	18,000
Machine hours worked	30,000 hrs.	48,000 hrs.	54,000 hrs.
Assembly hours worked (direct labour hours)	15,000 hrs.	-	27,000 hrs.
Customers' orders executed (in numbers)	1,250	1,000	1,500
Number of requisitions raised on the stores	40	30	50

Required:
PREPARE a statement showing details of overhead costs allocated to each product type using activity based costing.

(10 Marks)

Question 4:

(a) From the details furnished below you are required to COMPUTE a comprehensive machine-hour rate:

Original purchase price of the machine (subject to depreciation at 10% per annum on original cost)	Rs. 6,48,000
Normal working hours for the month (The machine works for only 75% of normal capacity)	200 hours
Wages to Machine-man	Rs. 400 per day (of 8 hours)
Wages to Helper (machine attendant)	Rs. 275 per day (of 8 hours)
Power cost for the month for the time worked	Rs. 65,000
Supervision charges apportioned for the machine centre for the month	Rs. 18,000
Electricity& Lighting for the month	Rs. 9,500
Repairs & maintenance (machine) including Consumable stores per month	Rs. 17,500
Insurance of Plant & Building (apportioned) for the year	Rs. 18,250
Other general expense per annum	Rs. 17,500

The workers are paid a fixed Dearness allowance of Rs. 4,575 per month. Production bonus payable to workers in terms of an award is equal to 33.33% of basic wages and dearness allowance. Add 10% of the basic wage and dearness allowance against leave wages and holidays with pay to arrive at a comprehensive labour-wage for debit to production.

(10 Marks)

(b) M/s. SD Private Limited commenced a contract on 1st July 2017 and the company closes its account for the year on 31st March every year. The following information relates to the contract as on 31st March 2018.

(i)	Material issued	Rs. 9,48,000
(ii)	Direct wages	Rs. 4,57,200
(iii)	Prepaid direct wages as on 31.3.2018	Rs. 1,08,000
(iv)	Administration charges	Rs. 7,20,000

(v) A supervisor, who is paid Rs. 50,000 per month, has devoted two-third of his time to this contract

(vi) A plant costing Rs. 7,85,270 has been on the site for 185 days, its working life is estimated at 9 years and its scrap value is Rs. 75,000

The contract price is Rs. 42 lakhs. On 31st March 2018 two-third of the contract was completed. The Architect issued certificate covering 50% of the contract price and the contractor had been paid Rs. 15.75 lakhs on account.

Assuming 365 days in a year, you are required to:

(i) Prepare a Contract Account showing work cost

(ii) Calculate Notional Profit or Loss as on 31st March 2018

(10 Marks)

Question 5:

(a) A transport company has a fleet of three trucks of 10 tonnes capacity each plying in different directions for transport of customer's goods. The trucks run loaded with goods and return empty. The distance travelled, number of trips made and the load carried per day by each truck are as under:

Truck No.	One way Distance Km	No. of trips per day	Load carried per trip / day tonnes
1	16	4	6
2	40	2	9
3	30	3	12

The analysis of maintenance cost and the total distance travelled during the last two years is as under

Year	Total distance travelled	Maintenance Cost (Rs.)
1	1,60,200	46,050
2	1,56,700	45,175

The following are the details of expenses for the year under review:

Diesel	Rs. 65 per litre. Each litre gives 4 km per litre of diesel on an average.
Driver's salary	Rs. 24,000 per month
Licence and taxes	Rs. 25,000 per annum per truck
Insurance	Rs. 45,000 per annum for all the three vehicles

Purchase Price per truck	Rs. 30,00,000, Life 10 years. Scrap value at the end of life is Rs. 1,00,000.
Oil and sundries	Rs. 250 per 100 km run.
General Overhead	Rs. 1,15,600 per annum

The vehicles operate 24 days per month on an average. On the basis of commercial tone-km, you are required to:

(i) PREPARE an Annual Cost Statement covering the fleet of three vehicles.
(ii) CALCULATE the cost per km. run.
(iii) DETERMINE the freight rate per tonne km. to yield a profit of 10% on freight.

(10 Marks)

(b) S Ltd. has prepared budget for the coming year for its two products A and B.

	Product A (Rs.)	**Product B (Rs.)**
Production & Sales unit	6,000 units	9,000 units
Raw material cost per unit	60.00	42.00
Direct labour cost per unit	30.00	18.00
Variable overhead per unit	12.00	6.00
Fixed overhead per unit	8.00	4.00
Selling price per unit	120.00	78.00

After some marketing efforts, the sales quantity of the Product A & B can be increased by 1,500 units and 500 units respectively but for this purpose the variable overhead and fixed overhead will be increased by 10% and 5% respectively for the both products.

You are required to PREPARE flexible budget for both the products:

(a) Before marketing efforts
(b) After marketing efforts.

(10 Marks)

Question 6:

(a) EXPLAIN the difference between controllable & uncontrollable costs?

(5 Marks)

(b) DEFINE cost plus contract? STATE its advantages.

(5 Marks)

(c) "Is reconciliation of cost accounts and financial accounts necessary in case of integrated accounting system?" EXPLAIN.

(5 Marks)

(d) DISCUSS the impact of Information Technology in Cost Accounting.

(5 Marks)

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