

(GI-11, GI-12+15, GI-13+14, SI-5)

DATE: 22.06.2020

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 first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.

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

Question 1:

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

	Rs.
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	Rs. 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 Rs. 618 per unit during the year.

Prepare cost sheet of the firm.

(5 Marks)

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

Material cost of work	Rs. 50
Factory Overheads	100% of wages

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

- Rowan Plan
- Halsey Plan

(5 Marks)

(c) CALCULATE from the following figures:

(i)	Efficiency ratio	
(ii)	Activity ratio and	
(iii)	Capacity ratio.	
	Budgeted Production	880 units
	Standard Hours per unit	10 hours
	Actual Production	750 units
	Actual Working Hours	6000 hours

(5 Marks)

(d) CALCULATE a suggested fare per passenger-km from the following information for a Mini Bus:

- (i) Length of route: 30 km
- (ii) Purchase price Rs. 4,00,000
- (iii) Part of above cost met by loan, annual interest of which is Rs. 10,000 p.a.
- (iv) Other annual charges: Insurance Rs. 15,000, Garage rent Rs. 9,000, Road tax Rs. 3,000 , Repairs & maintenance Rs. 15,000, Administrative charges Rs. 5,000.
- (v) Running Expenses: Driver & Conductor Rs. 5,000 p.m., Repairs/Replacement of tyre-tube Rs. 3,600 p.a., Diesel and oil cost per km Rs. 5.
- (vi) Effective life of vehicle is estimated at 5 years at the end of which it will have a scrap value of Rs. 10,000.
- (vii) Mini Bus has 20 seats and is planned to make Six no. two way trips for 25 days/p.m.
- (viii) Provide profit @ 20% of total revenue.

(5 Marks)

Question 2:

(a) From the details given below, CALCULATE:

- (i) Re-ordering level
- (ii) Maximum level
- (iii) Minimum level
- (iv) Danger level

Re-ordering quantity is to be calculated on the basis of following information:

Cost of placing a purchase order is Rs. 20

Number of units to be purchased during the year is 5,000

Purchase price per unit inclusive of transportation cost is Rs. 50

Annual cost of storage per units is Rs. 5.

Details of lead time : Average- 10 days, Maximum- 15 days, Minimum- 5 days.
For emergency purchases- 4 days.

Rate of consumption : Average: 15 units per day,
Maximum: 20 units per day.

(10 Marks)

(b) CALCULATE the earnings of a worker under Halsey System. The relevant data is as below:

Time Rate (per hour)	Rs. 60
Time allowed	8 hours
Time taken	6 hours
Time saved	2 hours

(10 Marks)

Question 3:

(a) Vision Ltd. manufactures luggage trolleys for airports. The factory, in which the company undertakes all of its production, has two production departments- 'Fabrication' and 'Assembly', and two service departments- 'Stores' and 'Maintenance'.

The following information have been extracted from the company's budget for the financial year ended 31st March, 2014:

Allocated Overhead Costs	Rs.
Fabrication Department	15,52,000
Assembly Department	7,44,000
Stores Department	2,36,000
Maintenance Department	1,96,000
Other Overheads	Rs.
Factory rent	15,28,000
Factory building insurance	1,72,000
Plant & machinery insurance	1,96,000
Plant & Machinery Depreciation	2,65,000
Subsidy for staffs' canteen	4,48,000

Direct Costs	Rs.	Rs.
Fabrication Department:		
Material	63,26,000	71,88,000
Labour	8,62,000	
Assembly Department:		
Material	1,42,000	14,48,000
Labour	13,06,000	

The following additional information is also provided:

	Fabrication Department	Assembly Department	Stores Department	Maintenance Department
Floor area (square meters)	24,000	10,000	2,500	3,500
Value of plant & machinery (Rs.)	16,50,000	7,50,000	75,000	1,75,000
No. of stores requisitions	3,600	1,400	---	---
Maintenance hours required	2,800	2,300	400	---
No. of employees	120	80	38	12
Machine hours	30,00,000	60,000		
Labour hours	70,000	26,00,000		

Required:

- (a) Prepare a table showing the distribution of overhead costs of the two service departments to the two production departments using step method; and
- (b) Calculate the most appropriate overhead recovery rate for each department.
- (c) Using the rates calculated in part (b) above, calculate the full production costs of the following job order:

Job number IGI2014

Direct Materials	Rs. 1,15,200
Direct Labour:	
Fabrication Department	240 hours @ Rs. 18 per hour
Assembly Department	180 hours @ Rs. 18 per hour
Machine hours required	
Fabrication Department	210 hours
Assembly Department	150 hours

(10 Marks)

(b) On 31st March, 20X8 the following balances were extracted from the books of the Supreme Manufacturing Company:

	Dr. (Rs.)	Cr. (Rs.)
Stores Ledger Control A/c	35,000	
Work-in-Process Control A/c	38,000	
Finished Goods Control A/c	25,000	
Cost Ledger Control A/c		98,000
	98,000	98,000

The following transactions took place in April 20X8:

	Dr. (Rs.)
Raw Materials:	
- Purchased	95,000
- Returned to suppliers	3,000
- Issued to production	98,000
- Returned to stores	3,000
Productive wages	40,000
Indirect wages	25,000
Factory overhead expenses incurred	50,000
Selling and Administrative expenses	40,000
Cost of finished goods transferred to warehouse	2,13,000
Cost of Goods sold	2,10,000
Sales	3,00,000

Factory overheads are applied to production at 150% of direct wages, any under/over absorbed overhead being carried forward for adjustment in the subsequent months. All administrative and selling expenses are treated as period costs and charged off to the Profit and Loss Account of the month in which they are incurred.

PREPARE the following Accounts:

- Cost Ledger Control A/c
- Stores Ledger Control A/c
- Work-in-Process Control A/c
- Finished Goods Stock Control A/c
- Factory Overhead Control A/c
- Costing Profit and Loss A/c
- Trial Balance as at 30th April, 20X3.

(10 Marks)

Question 4:

(a) RST Limited processes Product Z through two distinct processes – Process- I and Process- II. On completion, it is transferred to finished stock. From the following information for the year 20X8-X9, PREPARE Process- I, Process- II and Finished Stock A/c:

Particulars	Process- I	Process- II
Raw materials used	7,500 units	--
Raw materials cost per unit	Rs. 60	--
Transfer to next process/finished stock	7,050 units	6,525 units
Normal loss (on inputs)	5%	10%
Direct wages	Rs. 1,35,750	Rs. 1,29,250
Direct Expenses	60% of Direct wages	65% of Direct wages
Manufacturing overheads	20% of Direct wages	15% of Direct wages
Realisable value of scrap per unit	Rs. 12.50	Rs. 37.50

6,000 units of finished goods were sold at a profit of 15% on cost. Assume that there was no opening or closing stock of work-in-process.

(10 Marks)

(b) The standard material cost for a normal mix of one tonne of product "Captain" based on:

Raw Material	Usage (in tonne)	Price per tonne
A	0.740	Rs. 12,000
B	0.400	Rs. 23,500
C	0.640	Rs. 18,000

During the month of July, 2014, 18 tonnes of product "Captain" were produced from:

Raw Material	Consumption (tonnes)	Cost (Rs.)
A	13.12	1,62,000
B	7.10	1,65,200
C	11.50	2,07,000

Required to Calculate:

- Material Cost Variance
- Material Price Variance
- Material Usage Variance
- Material Mix Variance
- Material Yield Variance

(10 Marks)

Question 5:

(a) Maxim Ltd. manufactures a product "N-joy". In the month of August 2014, 14,000 units of the product "N-joy" were sold, the details are as under:

	(Rs.)
Sale Revenue	2,52,000
Direct Material	1,12,000
Direct Labour	49,000
Variable Overheads	35,000
Fixed Overheads	28,000

A forecast for the month of September 2014 has been carried out by the General manger of Maxim Ltd. As per the forecast, price of direct material and variable overhead will be increased by 10% and 5% respectively.

Required to calculate:

- Number of units to be sold to maintain the same quantum of profit that made in August 2014.
- Margin of safety in the month of August 2014 and September 2014.

(10 Marks)

(b) A Light Motor Vehicle manufacturer has prepared sales budget for the next few months, and the following draft figures are available:

Month	No. of vehicles
October	4,000
November	3,500
December	4,500
January	6,000
February	6,500

To manufacture a vehicle, a standard cost of Rs. 2,85,700 is incurred and sold through dealers at an uniform selling price of Rs. 3,95,600 to customers. Dealers are paid 12.5% commission on selling price on sale of a vehicle.

Apart from other materials four units of Part-X are required to manufacture a vehicle. It is a policy of the company to hold stocks of Part-X at the end of the each month to cover 40% of next month's production. 4,800 units of Part-X are in stock as on 1st October.

There are 950 nos. of completed vehicles are in stock as on 1st October and it is policy to have stocks at the end of each month to cover 20% of the next month's sales.

You are required to

- (a) Prepare Production budget (in nos.) for the month of October, November, December and January.
- (b) Prepare a Purchase budget for Part-X (in units) for the months of October, November and December.
- (c) Calculate the budgeted gross profit for the quarter October to December.

(10 Marks)

Question 6:

(a) What is Cost accounting? Enumerate its important objectives.

(5 Marks)

(b) EXPLAIN the difference between Cost Control and Control Reduction.

(5 Marks)

(c) DEFINE Controllable Cost and Uncontrollable Cost.

(5 Marks)

(d) What is inter-process profit? State its advantages and disadvantages.

(5 Marks)
