Paper – 8: Cost & Management Accounting

Time Allowed: 3 Hours **Full Marks: 100**

Question No 1 is Compulsory. Answers any five Questions from the rest.
Working Notes should form part of the answer.

Question.1

(a) Match the statement in Column I with appropriate statement in Column II [1x5]

Column I	Column II
(i) Contribution	(A) Management by exception
(ii) Price rate	(B) Job evaluation
(iii) Under Absorbed Overhead	(C) Marginal costing
(iv) Variance analysis	(D) Supplementary rates
(v) Point rating	(E) Method of wage payment

(b) State whether the following statements are TRUE or FALSE: [1x5]

(i) In variable costing, profit fluctuates with sale.

(ii) Incentive systems benefit only workers.

(iii) Service departments usually do not render services to each other.

(iv) Idle time variance is always adverse.

(v) Fixed costs vary with volume rather than time.

(c) Fill in the blanks: [1x5]

(i) The technical term for charging of overheads to cost units is known as ----------

(ii) ----------determines the priorities in functional budgets.

(iii) In contract costing, work in progress certified is valued at ----------while uncertified work is valued at ----------.

(iv) Cost sheet is a document which provides for assembly of the detailed cost of a ----------

(v) Under ----------system, there is no need of reconciliation of cost and financial accounts.

(d) In the following cases, one out of four answers is correct. You are required to indicate the correct answer (= 1 mark) and give workings (=1 mark): [2x5=10]

(i) The hospital is opened for 365 days, but bed occupancy is 25 patients per day in 120 days and 20 beds occupied in another 80 days. Extra beds occupied during the year are 400. The patient-days of the hospital is
(A) 4,000
(B) 5,000
(C) 3,500
(D) 4,600

(ii) The cost-volume-profit relationship of a company is described by the equation y = ₹ 8,00,000 + 0.60x, in which x represents sales revenue and y is the total cost at the sales volume represented by x. If the company desires to earn a profit of 20% on sales, the required sales will be.
(A) ₹ 40,00,000
(B) ₹ 35,50,000
(C) ₹ 24,00,000
(D) ₹ 20,00,000

(iii) If the capacity usage ratio of a production department is 90% and activity ratio is 99% then the efficiency ratio of the department is …….. %.
(A) 100
(B) 120
(C) 110
(D) 105

(iv) Horizon Ltd. manufactures product BM for last 5 years. The Company maintains a margin of safety of 37.5% with overall contribution to sales ratio of 40%. If the fixed cost is ₹ 5 lakh, the profit of the company is
(A) ₹ 24.00 laks
(B) ₹ 12.50 lakh
(C) ₹ 3.00 lakh
(D) None of A, B, C

(v) In a factory where standard costing is followed, 9,600 kg. of material at ₹10.50/kg were actually consumed resulting in a price variance of ₹4,800(A) and usage variance of ₹4,000 (F). The standard cost of actual production is ₹
(A) 1,00,000
(B) 96,000
(C) 1,20,000
(D) 86,000

Answer:

(a)

(i) (C)
(ii) (E)
(iii) (D)
(iv) (A)
(v) (B)

(b)

(i) True

(ii) False

(iii) False

(iv) True

(v) False

(c)

(i) Absorption

(ii) Key factor

(iii) Contract price, Cost

(iv) Cost centre or cost unit

(v) Integral

(d)

(i) (B) 5,000

Patient days in a year
= (25 beds x 120 days) + (20 beds x 80 days) + 400 beds
= 3,000 + 1,600 + 400
= 5,000 patient days

(ii) (A) ₹40,00,000

Variable cost = 60% , therefore, contribution to sales ratio = 40% (P/V ratio)
Company's target profit 20% in sales, therefore, revised contribution which covers only fixed cost = 40% - 20% = 20%.
Required sales = fixed cost / revised contribution = ₹ 8,00,000/ 20% = ₹ 40,00,000.

(iii) (C) 110%

Efficiency ratio (ER)=Std. hr. of production ÷ Actual hrs
Activity ratio (AR)=Std. hrs for production ÷ Budgeted hrs
Capacity ratio (CR)=Actual hrs ÷ Budgeted hrs
Hence, ER = AR / CR=99% / 90% =110%

(iv) (C) 3.00 lakhs

Break even sales= ₹ 5 lakhs ÷ 0.40=₹ 12.50 lakhs
Total sales =12.50/(1-0.375)=₹20.00 lakhs
Hence the profit of the company:
₹ 20 lakh x 0.375 x 0.40 =₹ 3.00 lakhs

(v) (A) 1,00,000

Total material cost variance=Material price variance + Material usage variance
=4,800 (A) + 4,000(F)
=₹ 800 (A)

Actual material cost=96,00 x 10.50 =₹1,00,800

Standard cost of actual production=₹ 1,00,800 - 800= ₹ 1,00,000

Question.2

(a) Compute a comprehensive machine hour rate for a machine in Production department 'A' of a factory from the following details:

Machine :	**Cost including installation charges**	**₹ 20,00,000**
	Estimated useful life	**10 years**
	Estimated salvage value	**10%**
Working hours:	**Number of working days**	**300**
	Number of shifts per day	**2**
	Effective working hrs per shift	**7**
	Stoppages for repairs and maintenance etc.	**200 hrs**

Operating & other costs:

(i) Wages of two operators (one for each shift) @ ₹ 5,000 p.m.
(ii) Salary of supervisor (one for each shift) @ ₹ 7,500. Only one-fifth of the supervisor's time is devoted to this machine
(iii) Electric Power : 20 units per hour, each unit costing ₹ 3.20
(iv) Insurance Charges : ₹ 5,000 per annum
(v) Repairs and Maintenance (estimated) : ₹12,500 p.m
(vi) Rent, rates & taxes (allocated) : ₹10,000 pa.
(vii) General lighting etc. (allocated) : ₹750 p.m
(viii) Other factory overheads (allocated) : ₹1,40,000 p.a [8]

Answer:

Computation of Comprehensive Machine Hour Rate

Department	: Production Department A
Description of Machine	
Estimated life	: 10 years
Cost of Machine	: ₹20 lakhs
Estimated salvage value	: 10%
Estimated working hours (300 x 2 x 7 – 200)	: 4,000

	Per Annum ₹	Per hour ₹
(A) Variable expenses:		
(i) Wages of operators (₹5,000 x 12 x 2)	1,20,000	
(ii) Power (20 x 4000 x 3.20)	2,56,000	
(iii) Repairs and maintenance (12,500 x 12)	1,50,000	
	5,26,000	131.50
(B) Standing charges:		
(i) Salary of supervisor 1/5th of (2 x 7500 x 12)	36,000	
(ii) Depreciation = ₹(20,00,000 – 2,00,000) / 10	1,80,000	
(iii) Insurance charges	5,000	
(iv) Rent, rates & taxes (allocated)	10,000	
(v) General lighting, etc. (allocated) [₹750 x 12]	9,000	
(vi) Other factory overheads (allocated)	1,40,000	
	3,80,000	95.00
Total (A + B)	9,06,000	226.50

(b) M/s Moon Light Co. Ltd. fixes the interdivisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant particular of the budget for the Division 'X' for the year 2010-11 is given below:

Particulars	Amount (₹)
Fixed Assets	**6,00,000**
Current Assets (other than Cash at Bank)	**3,00,000**
Cash at Bank	**1,00,000**
Yearly fixed cost for the division	**9,00,000**
Variable cost per unit	**10**
Budgeted volume of production per year (in units)	**5,00,000**
Desired return on Investment	**30%**

You are required to determined the transfer price for Division 'X'. [5]

Answer:

Computation of the Transfer Price for Division 'X'

Particulars	Amount (₹)
Variable cost per unit	10.00
Fixed cost per unit (Note 1)	1.80
Profit margin per unit (Note 3)	0.60
Transfer price per unit	12.40

Working Notes:

(1) Fixed cost per unit

$$= \frac{\text{Yearly fixed cost for the division}}{\text{Budgeted volume of production per year (units)}}$$

$$= \frac{9,00,000}{5,00,000} = 1.8$$

(2) Investments in Division 'X'

Fixed Assets	6,00,000
Current Assets (3,00,000 + 1,00,000	4,00,000
	10,00,000

(3) Return on investment

Desired return 30% on ₹10,00,000 = 3,00,000

Budgeted volume of production per year = 5,00,000 units

$$\text{Profit margin per unit} = \frac{\text{Desired return}}{\text{Budgeted volume of production per year (units)}}$$

$$= \frac{3,00,000}{5,00,000} = ₹0.6$$

(c) For a particular item of store, the following information are available:
Re-order level = 1500 units
Normal Consumption per week = 200 units
Re-order period = 3 to 5 weeks
What will be the Maximum Consumption? [2]

Answer:

Let Maximum Consumption will be m

Re-order level = Maximum Consumption × Maximum re-order period

1500= m× 5

Therefore,

5m = 1500

⇨ m =300

Maximum Consumption is 300 units.

Question.3

(a) The standard process cost card for a processed item is as under:

	₹ per Kg of Finished Product
Direct Materials 2 kgs @ ₹10 per kg	**20**
Direct Labour 3 hours @ 20 per hour	**60**
Fixed Overhead	**90**
Total	**170**

Budgeted output for the period is 1000 kgs.

Actual Production for a month is as under:

Material	**1400 kgs**
Labour	**1140 kgs**
Overheads	**1140 kgs**

Actual Cost on Actual Production for a month are as under:

Direct Material	**2900 kgs**	**= cost**	**₹ 32,000**
Direct Labour	**3300 hours**	**= cost**	**₹ 68,000**
Fixed Overhead			**₹ 88,000**

You are required to work out the following variances;

(i) Materials Price and Usage Variances.

(ii) Labour rate and Efficiency Variances; and

(iii) Fixed Overhead Budget Variances. **[2+2+2+2+2=10]**

Answer:

Material cost variance Analysis

Standard quantity of actual output = 1400 kg x 2Kg	= 2800 kg.
Actual quantity	= 2,900 kgs
Standard Cost	= ₹10 per kg
Actual cost	= ₹32,000

(i) Material price and usage variance

(a) Material price variance = (Standard price - Actual price) x Actual Quantity
= (2900 kg x 10 - 32,000)
= ₹ 29,000 - ₹32,000
= ₹ 3,000 (Adv)

(b) Material Usage Variance = (Standard Quantity -Actual Quantity) x Standard Rate
= (2800 kg x ₹10 - ₹29,000)
= ₹ 1,000 (Adv)

(ii) Labour Rate and efficiency variance

Here, standard hour for actual output = 1,140 x 3 = 3,420
Standard wage rate per hour = ₹ 20
Actual hours = 3300
Actual wages = ₹ 68,000

(a) Labour Rate Variance=
Standard Rate x Actual hours - Actual Rate
= ₹20 x 3,300 – ₹68,000
= ₹2,000 (adv)

(b) Labour Efficiency variance

= (Standard hour – Actual hours) x Standard rate
= (3,420 – 3,300) x ₹20 = ₹2,400 (Fav)

(iii) Fixed overhead Budget variance

Actual Expenditure = ₹88,000
Budget Expenditure = 1140kgs x ₹90
= ₹1,02,600
Fixed overhead Budget variance = Actual Expenditure – Budget Expenditure
₹88,000 – ₹1,02,600 = ₹14,600 (Fav)

(b) State the limitation of Activity Based Costing. [5]

Answer:

Though Activity Based Costing system is very effective, it suffers from some limitation as given below:

(i) Activity Based Costing is a complex system and requires lot of records and tedious calculations.
(ii) For small organization, traditional cost accounting system is more beneficial than Activity Based Costing due to the simplicity of operation of the former.
(iii) Sometimes it is difficult to attribute costs to single activities as some costs support several activities.
(iv) There is a need of trained professionals who are limited in number.
(v) This system will be successful if there is a total support from the top management.
(vi) Substantial investment of time and money is required for the implementation of this system.

Question.4

(a) M/s XY Ltd. is the manufacturers of picture tubes for T.V. The following are the details of their operation during 2013:

Average monthly market demand	**2,000 Tubes**
Ordering cost	**₹ 100 per order**
Inventory carrying cost	**20% per annum**
Cost of tubes	**₹ 500 per tube**
Normal usage	**100 tubes per week**
Minimum usage	**50 tubes per week**
Maximum usage	**200 tubes per week**
Lead time to supply	**6-8 weeks**

Compute from the above:

(i) Economic Order Quantity. If the supplier is willing to supply quarterly 1,500 units at a discount of 5%, is it worth accepting?
(ii) Maximum level of stock
(iii) Minimum level of stock
(iv) Reorder level [4+2+2+2]

Answer:

(i) S=Annual usage of tubes = Normal usage per week × 52 weeks
=100 tubes × 52 weeks = 5,200 tubes
C_o=Ordering cost per order = ₹ 100/- per order
C_1=Cost per tube = ₹ 500/-
IC_1=Inventory carrying cost per unit per annum
=20% × ₹ 500 = ₹ 100/- per unit, per annum
Economic order quantity:

$$E.O.Q = \sqrt{\frac{2SC_O}{IC_1}} = \sqrt{\frac{2 \times 5200 \text{ units} \times ₹100}{₹100}} = 102 \text{ tubes (approx.)}$$

The supplier is willing to supply 1500 units at a discount of 5%, is it worth accepting.

Total cost (when order size is 1500 units)
= Cost of 5,200 units + Ordering cost + Carrying cost.

$$= 5,200 \text{ units} \times ₹ 475 + \frac{5,200 \text{units}}{1,500 \text{ units}} \times ₹100 + \frac{1}{2} \times 1,500 \text{ units} \times 20\% \times ₹ 475$$

=₹ 24,70,000 + ₹ 346.67 + ₹ 71,250
=₹ 25,41,596.67

Total cost (when order size is 102 units)

$$= 5,200 \text{ units} \times ₹ 500 + \frac{5,200 \text{units}}{102 \text{ units}} ₹ 100 + \frac{1}{2} 102 \text{ units} \times 20\% \times ₹ 500$$

=₹ 26,00,000 + ₹ 5,098.03 + ₹ 5,100
=₹ 26, 10,198.03

Since, the total cost under quarterly supply of 1,500 units with 5% discount is lower than that when order size is 102 units, therefore the offer should be accepted. While accepting this offer consideration of capital blocked on order size of 1,500 units per quarter has been ignored.

(ii) Miximum level of stock
=Re-order level + Reorder quantity – Min. usage × Min. reorder period
=1,600 units + 102 units – 50 units × 6 weeks
=1,402 units.

(iii) Minimum level of stock
=Re-order level – Normal usage × Average reorder period
=1,600 units – 100 units × 7 weeks = 900 units.

(iv) Reorder level
=Maximum consumption × Maximum re-order period
=200 units × 8 weeks
=1,600 units

(b) Discuss the accounting treatment of spoilage and defectives in Cost Accounting. [5]

Answer:

Normal spoilage cost (which is inherent in the operation) are included in cost either by charging the loss due to spoilage to the production order or charging it to production overhead so that it is spread over all products. Any value realized from the sale of spoilage is credited to production order or production overhead account, as the case may be.

The cost of abnormal spoilage (i.e. spoilage arising out of causes not inherent in manufacturing process) is charged to the Costing Profit and Loss Account. When spoiled work is due to rigid specifications, the cost of spoiled work is absorbed by good production, while the cost of disposal is charged to production overheads.

The problem of accounting for defective work is the problem of accounting of the costs of rectification or rework. The possible ways of treatment are as below:

(i) Defectives that are considered inherent in the process and are identified as normal can be recovered by using the following methods:
- Charged to good products
- Charged to general overheads
- Charged to department overheads
- Charged to identifiable job.

(ii) If defectives are abnormal and are due to causes beyond the control of organization, the rework, cost should be charged to Costing Profit and Loss Account.

Question.5

(a) What do you understand by the term 'pre-determined rate of recovery of overheads'? What are the bases that are usually advocated for such pre-determination? [3+2]

Answer:

The term 'pre-determined' rate of recovery of overheads' refers to a rate of overhead absorption. It is calculated by dividing the budgeted overhead expenses for the accounting period by the budgeted base for the period. This rate of overhead absorption is determined prior to the start of the activity; that is why it is called a 'pre-determined rate'. The use of the pre-determined rate of recovery of overheads enables prompt preparation of cost estimates and quotations and fixation of sales prices. For prompt billing on a provisional basis before completion of work, as for example in the case of cost plus contracts, pre-determined overhead rates are particularly useful.

Bases Available: The bases available for computing 'pre-determined rate of recovery of overheads' are given below:-

(i) Rate per unit of output
(ii) Direct labour cost method
(iii) Direct labour hours method
(iv) Machine hour rate method
(v) Direct material cost method
(vi) Prime cost method.

The choice of a suitable method for calculating 'pre-determined rate of recovery of overhead, depends upon several factors. Some important factors are-type of industry, nature of product and processes of manufacture, nature of overhead expenses, organizational set-up, policy of management etc.

(b) A company produces 30000 units of product A and 20000 units of product B per annum. The sales value and cost of two products are as follows:

Sales value	**₹7,60,000**	**Factory overheads**	**₹ 1,90,000**
Direct Material	**₹1,40,000**	**Administrative and selling overheads**	**₹ 1,20,000**
Direct Labour	**₹1,90,000**		

50% of the factory overhead is variable and 50% of the administrative and selling overheads are fixed. The selling price of A is ₹ 12 per unit and ₹ 20 per unit for B.

The direct material and labour ratio for product A is 2:3 and for B is 4:5. For both the products, the selling price is 400% of direct labour. The factory overheads are charged in the ratio of direct labour and administrative and selling overheads are recovered at a flat rate of ₹ 2 per unit for A and ₹ 3 per unit for B.

Due to fall in demand of the above products, the company has a plan to diversify and make product C using 40% capacity. It has been estimated that for C direct material and direct labour will be ₹2.50 and ₹3 per unit respectively. Other variable costs will be the same as applicable to the product A. The selling price of product C is ₹ 14 per unit and production will be 30000 units.-

Assuming 60% capacity is used for manufacture of A and B, Calculate —
(i) Present cost and profit;
(ii) Cost and profit after diversification;
Give your recommendations as to whether to diversify or not. **[4+4+2]**

Answer:

(i) Statement Showing Present Cost and Profit

Particulars	Product A	Product B	Total (₹)
i) Production and sales (units)	30,000	20,000	50,000
ii) Sales value (₹)	3,60,000	4,00,000	7,60,000
iii) Variable costs —			
Direct material	60,000	80,000	1,40,000
Direct labour	90,000	1,00,000	1,90,000
Factory overheads	45,000	50,000	95,000
Administrative and selling overheads	30,000	30,000	60,000
iv) Total variable costs	2,25,000	2,60,000	4,85,000
v) Contribution (ii-iv)	1,35,000	1,40,000	2,75,000
vi) Fixed costs			1,55,000
vii) Profit (v - vi)			1,20,000

(ii) Statement Showing cost and Profit after Diversification

Particulars	Product A	Product B	Product C	Total
i) Capacity levels	60%	60%	40%	
ii)Production and sales (units)	18,000	12,000	30,000	60,000
iii)Sales value (₹)	2,16,000	2,40,000	4,20,000	8,76,000
Variable costs —				
Direct material	36,000	48,000	75,000	
Direct labour	54,000	60,000	90,000	
Factory overheads	27,000	30,000	45,000	
Administrative and selling overheads	18,000	18,000	30,000	-
iv) Total variable costs	1,35,000	1,56,000	2,40,000	5,31,000
v) Contribution (iii – iv)	81,000	84,000	1,80,000	3,45,000
less: Fixed cost				
Factory overheads				95,000
Administrative and selling overheads				60,000
vi) Total Fixed overheads				1,55,000
Profit (v – vi)				1,90,000

Recommendation:
The company should implement the proposed diversification as it has resulted into increase in the profit from ₹1,20,000 to ₹1,90,000.

Question.6

(a) The financial records of Modern Manufacture Ltd. reveal the following for the year ended 30-6-2013:

	₹ in '000 ₹
Sales (20,000 units)	**4,000**
Materials	**1,600**

Wages		**800**
Factory Overheads		**720**
Office and Administrative Overheads		**416**
Selling and Distribution Overheads		**288**
Finished Goods (1,230 units)		**240**
Work-in-progress	**48**	
Labour	**32**	
Overheads (Factory)	**32**	**112**
Goodwill written off		**320**
Interest on Capital		**32**

In the Costing records, factory overhead is charged at 100% wages, administration overhead 10% of factory cost and selling and distribution overhead at the rate of ₹ 16 per unit sold.

Prepare a statement reconciling the profit as per cost records with the profit as per financial records of the company. [10]

Answer:

Profit & Loss Account of Modern Manufacturers
for the year ended 30-6-2013

			(₹ in 000)
To Materials	1,600	By Sales (20,000 units)	4,000
To Wages	800		
To Factory Overheads	720	By Finished Goods	240
To Office and Admn. Overheads	416	1230 units	
To Selling & Distribution Overheads	288	Work-in-Progress	112
To Goodwill written off	320		
To Interest on Capital	32		
To Net Profit	176		
	4,325		4,352

Profit as per Cost Record

	₹ In '000)
Materials	1,600
Wages	800
Prime Cost	2,400
Factory Overhead (100% of wages)	800
Gross Factory Cost	3,200
Less: Closing WIP	112
Factory Cost (21,230 units)	3,088
Add: Office & Administrative Overhead (10% of Factory Cost)	308.80
Total Cost of output	3,396.80
Less: Closing stock (1,230 units) of Finished Goods (See Working Note 1)	196.80
Cost of Production of 20,000 units	3,200.00
Selling and Distribution overhead (@ ₹ 16 p u.)	320.00
Cost of sales	3,520.00

(20,000 units)	
Sales Revenue	4,000.00
(20,000 units)	
Profit	480.00

Reconciliation Statement

	₹('000)	₹ ('000)
Profit as per Cost Accounts		480
Add: Factory overhead Overabsorbed (800-720)	80	
Selling and Distribution Overhead Overabsorbed (320-288)	32	
Closing stock overvalued in Financial Accounts (240-196.8)	43.20	152.2
		635.20
Less: Office & Administrative Overhead underabsorbed (416-308.80)	107.20	
Goodwill written off	320.00	
Interest on Capital	32.00	459.20
Profit as per Financial Accounts		176.00

Working Note:

1. Cost per unit of finished goods=Total cost of output/Total number of units produced
   =₹ 3396.80 Thousand/ 21,230 units
   = ₹ 160
   Cost of 1230 units=₹160 x 1230
   = ₹ 1,96,800

(b) State the feature of Standard Cost. [5]

Answer:

Features of Standard cost are stated below:

- **(i)** Predetermined cost on scientific basis.
- **(ii)** Built up from the assessment of the value of cost elements.
- **(iii)** Emphasizes what should be the cost
- **(iv)** Used for analysis of variance
- **(v)** Service as effective tool for cost control.
- **(vi)** Promotes possible cost reduction.
- **(vii)** Forms basis for establishing bids and contracts for setting selling prices.
- **(viii)** Facilitates 'Management by exception'.
- **(ix)** Used as an aid to budgeting
- **(x)** Provides incentive and motivation to work with greater efforts and vigilance for achieving standard.

Question.7

(a) From the following particulars, prepare the following in the books of X Ltd.

- **(i) Statement of equivalent production**
- **(ii) Statement of apportionment of cost.**
- **Opening stock as on 1st August; 200 units @ ₹4 per unit**
- **Degree of completion: Materials 100%, labour and Overheads 40%**
- **Units introduced during. August: 1,050 units**

- **Output transferred to the next process: 1,100 units**
- **Closing stock : 150 units**
- **Degree of completion: Materials 100%,Labour and Overheads 70%**
- **Other relevant information regarding the process:**

Materials: ₹3,150, Labour, ₹4,500 and Overheads: ₹2,250 **[4+4]**

Answer:

(i) Statements of Equivalent Production

Input		Output		Equivalent Production			
				Material		Lab. & Ovd.	
Item	Units	Item	Units	Units	% of completion	Units	% of completion
Opening WIP	200	Work on opening WIP	200	-	-	120	60
Introduced	1050	Units introduced and completed	900	900	100	900	100
		Closing stock	150	150	100	105	70
	1,250		1,250	1,050		1,125	

(ii) Statement of cost of each element of equivalent production

Element of cost	Cost (₹)	Eqv. Prodn.	Cost per unit (₹)
Material	3,150	1,050	3
Labour	4,500	1125	4
Overhead	2,250	1125	2
	9,900		9

(iii) Statement of Apportionment of Cost

Items	Elements	Equivalent Production	Cost/ Unit (₹)	Cost (₹)	Total (₹)
Opening WIP (for completion)	Material	-	-	-	-
	Labour	120	4	480	
	Overhead	120	2	240	720
Units introduced & completed	Material	900	3	2,700	
	Labour	900	4	3,600	
	Overhead	900	2	1,800	8,100
Closing Stock	Material	150	3	450	
	Labour	105	4	420	
	Overhead	105	2	210	1,080
					9,900

(b) The budgeted overheads and cost driver volumes of Neptune Ltd. are as follows:

Cost Pool	Budgeted Overheads (₹)	Cost driver	Budgeted Volume
Material procurement	**2,90,000**	**No. of orders**	**550**
Material handling	**1,25,000**	**No. of movements**	**340**
Set-up	**2,07,500**	**No. of set-ups**	**260**
Maintenance	**4,85,000**	**Maintenance hours**	**4,200**
Quality control	**88,000**	**No. of inspection**	**450**
Machinery	**3,60,000**	**No. of M/C hours**	**12,000**

The firm has produced a batch of 2,600 components of AXL-5, its material cost was ₹1,30,000 and labour cost ₹2,45,000.

The usage activities of the said batch are follows:

Material orders	**-26**	**Maintenance hours**	**-690**
Material movements	**-18**	**Inspection**	**-28**
Set-ups	**-25**	**M/C hours**	**-1,800**

Required:

(i) Calculate cost driver rates that are used for tracing appropriate amount of overheads to the said batch; and

(ii) Ascertain the cost of batch of components using activity based costing. [3+4]

Answer:

(i) Cost Driver Data

Particulars	Details	Rate of Cost Drivers
Material Procurements	2,90,000/550	₹527
Material handling	1,25,000/340	₹368
Set-up	2,07,500/260	₹798
Maintenance	4,85,000/4,200	₹115
Quality Control	88,000/450	₹195
Machinery	3,60,000/12,000	₹30

(i) Calculation of Batch of 2,600 components

	Amount (₹)	Amount (₹)
Direct materials		1,30,000
Direct labour		2,45,000
Prime Cost		3,75,000
Add:-Overhead:		
Material procurements (26x₹527)	13,702	
Material handling (18x₹368)	6,624	
Maintenance (690x ₹115)	79,350	
Set ups (25x₹798)	19,950	
Qualiy control (28x₹195)	5,460	
Machinery (1800x ₹30)	54,000	1,79,086
		5,54,086

Question.8 Write short notes on any three from the following: [3x5=15]

(a) Job evaluation
(b) Uniform Costing
(c) Cost driver
(d) Zero-Base Budgeting
(e) Concept of split off point and joint cost

Answer:

(a) Job Evaluation (JE):

Is necessary for the management of any organization to establish paper wage and salary structure for various jobs. For doing this in a scientific manner, it is necessary to determine the relative value of jobs and hence a job evaluation is done. It is a technique of analysis and assessment of jobs to determine their relative value within the firm. It aims at providing a rational and equitable basis for differential salaries and wages for different classes of worker

Following are some of its basis objectives:

- JE helps in developing a systematic and rational wage structure as well as job structure

- Je aims at removing the controversies and disputes relating to salary between the employers and employees.
- It aims to bring in fairness and stability in the wage and salary structure. JE discloses characteristics and conditions relating to different jobs.

The following are the methods of job evaluation:
Point Ranking method, Ranking method, Grading method and factor comparision method.

(b) Uniform costing:

Uniform Costing is a technique of cost accounting which ensures application of uniform accounting method in a number of concerns in the same industry or sometimes in all the units under the same management.
Uniform Cost Accounting system is defined as "a system using common concepts, principles and standard accounting practices adopted by different Entities in the same industry to facilitate inter-firm comparison".
Therefore, the main objective of Uniform Costing is Inter-firm Comparison.
For better perception and judgement of performance of individual units/undertakings by a comparative study, the performance/achievement must be expressed in the same denomination so that like is compared with like. This sort of study originated in the printing industry.

(c) Cost Driver:

"Cost driver is any factor which causes a change in the cost of an activity, e.g. the quality of parts received by an activity is a determining factor in the work required by that activity and therefore affects the resources required. An activity may have multiple cost drivers associated with it". In other words, cost driver means the factors which determine the cost of an activity. Cost driver is an activity which generates cost. Cost driver are link between activity and cost. Activity based costing identifies the activities the activities that causes cost to be incurred, and searches for fundamental cost drivers of those activities. Once the activities and their drivers have been identified, this information is used to attach overhead to those cost objects like products etc. that have actually caused the costs to be incurred.

(d) Zero Base Budgeting

Zero Base Budgeting is a method of budgeting starting from scratch level. Proposals for the coming period should be based on merit and not related to past performance. Budgets prepared by conventional methods are the incremental type of budget based on actual performance in the past periods. In the Zero base budgets, the result of the past year is not accepted as basis, since the past may conceal inefficiencies.
Zero base budgets are mainly prepared by taking the following steps.

(i) Identification of decision units.
(ii) Preparation of decision packages.
(iii) Ranking of decision package using cost benefit analysis.
(iv) Allotment of available funds according to the priority determined by ranking each decision package is a self contained module explaining the need for a certain activity, its cost, its benefits consequences if the packages is not accepted, etc. The ranking of package based on cost benefit analysis by the difficult levels of management starting from the bottom upwards ensures allotment of funds to relatively more important and essential activities.

(e) Concept of split off point and joint cost

Split off point is a point to which input factors are commonly used for production of multiple products which can be either joint products or by products. In other words, upto a certain stage the manufacturing process is the same for all the products and a stage appears after which the individual processing becomes difficult.

Joint cost is the separation cost of commonly used input factors for the production multiple products. So all costs incurred before or upto the split off point are termed either as joint costs or pre separation costs and the appointment of these costs is the prime objective of the joint product accounting. Cost incurred after the split off point are post separation costs and can be identified with the product.