 Gywiumbynd - 612504
S.K.S.S ARTS COLLEGE, THIRUPPANANDAL - 612504


## QUESTION BANK

Title of the Paper

## ADVANCED COST \& MANAGEMENT ACCOUNTING

Course: II M.Com.,

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Prepared by


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## CORE COURSE - XIV (CC) <br> ADVANCED COST \& MANAGEMENT ACCOUNTING

## UNIT - I

Cost Accounting - meaning - objectives - Nature and Scope - methods of costing techniques of costing - classification and coding of costs - inventory control - stock levels inventory systems - methods of pricing material issues.

## UNIT - II

Labour costs - Direct and indirect - importance - Remuneration method - labour performance reports - labour turnover and stability - Overheads - Importance - allocation and apportionment of overheads - overhead cost control.

## UNIT - III

Process costing - normal and abnormal loss and gains - equivalent production joint product and by product - contract costing.

## UNIT - IV

Management Accounting - Nature \& Scope - Tools and Techniques - Ratio analysis - marginal costing - cost-volume profit analysis - Break-even analysis - utility and limitations of cost volume profit analysis - Financial and profit planning - objectives.

## UNIT - V

Budget administration - types of budget - advantages - budgeting and budgetary control - Standard Costing, Material, Labour and Overhead variances.

## CHOOSE THE CORRECT ANSWER

1. Basic objective of cost accounting is
(a) Tax compliance
(b) Financial Audit
(c) Cost Ascertainment
(d) None of the above
2. Cost incurred is identified with
(a) Each Executive
(b) Each unit of output
(c) Each month
(d) None of the above
3. Stock control through stock levels and EOQ is called
(a) Demand and Supply method
(b) Perpectual inventory system
(c) Control by importance and exception
(d) None of these
4. Average price methods are more suitable when
(a) Material prices are rising
(b) Material prices are falling
(c) Material prices are fluctuating
(d) Material prices are constant
5. Imputed cost is a
(a) Notional cost
(b) Real cost
(c) Abnormal cost
(d) Variable cost
6. Scrap is
(a) Residue of Raw material
(b) Wastage of material
(c) Surplus material
(d) Abnormal loss of material
7. Material requisition is meant for
(a) Purchase of material
(b) Supply of material from stores
(c) Sale of material
(d) None of the above
8. Multiple costing is, using in the same firm
(a) A single costing method
(b) Several methods of costing
(c) Tax saving measures
(d) None of the above
9. Stores ledger is maintained in the
(a) Cost accounting department
(b) HR department
(c) Marketing department
(d) None of the above
10. Cost classification can be done in
(a) Two ways
(b) Three ways
(c) Four ways
(d) Several ways
Answers :
11. (c)
12. (b)
13. (a)
14. (c)
15. (a)
16. (a)
17. (b)
18. (b)
19. (a)
20. (d)

SHORT QUESTIONS (2 MARKS)
11. Define Cost Accounting.
12. List out the functions of Cost Accounting.
13. What is realisable value?
14. State any two objectives of Cost Accounting.
15. What do you mean by EOQ?
16. What is direct material?
17. What is minimum stock level?
18. What is FIFO?
19. What is historical cost?.
20. Define Inventory control.

## PARAGRAPH QUESTIONS (5 MARKS)

21. What are the characteristics of Cost Accounting?
22. The following particulars were collected from a manufacturing unit for the year 2018 :

Monthly demand
Cost of pricing an order
Annual carrying cost per unit
Normal usage
Minimum usage
Maximum usage
Re-order period
Calculate from the above particulars :
(a) Re-order quantity
(b) Re-order level and
(c) Minimum level
23. From the following details, ascertain the effective cost of Material per Kg .

1,000 units
Rs. 100
Rs. 10
50 units per week
25 units per week
75 units per week
4 to 6 weeks

Material purchased as per invoice :
Chemical ' $R$ ' - 400 units at Rs. 10 each
Chemical ' $S$ ' - 400 units at Rs. 50 each
Freight at Rs. 2 per unit
Sales Tax at $10 \%$

## :

Rs.
4,000
20,000
1,600
2,400 Handling charges of Rs. 50 and Rs. 300 respectively are to be included for chemicals 'R' and ' S ' Shortages of $5 \%$, considered as Normal, are excepted in transport and a further loss of 30 units each may be conducted before the materials can be completely used.
24.The Godavari Pump Company uses about 75,000 valves per year and the usage is fairly constant at 6,250 valves per month. The valve's cost is Rs. 1.50 per unit when bought in quantities and the carrying cost is estimated to be $20 \%$ of average inventory investment on the annual basis. The cost to place an order and to process the delivery is Rs.18. It takes 45 days to receive delivery from the date of an order and the safety stock of 3,250 valves is desired. You are required to determine : (a) The most EOQ (b) The order point.
25. Calculate the minimum stock level, maximum stock level and re-ordering level from the following information :
(i) Minimum consumption $=100$ units per day
(ii) Maximum consumption $=150$ units per day
(iii) Normal consumption $=120$ units per day
(iv) Re -order period $\quad=10-15$ days
(v) Re-order quantity $\quad=1,500$ units
(vi) Normal re-order period = 12 days
26. The "Received" side of the Stores Ledger Account shows the following particulars :

| Jan 1 Opening Balance | $: 500$ units @ Rs. 4 |
| :--- | :--- |
| Jan 5 Received from vendor | $: 200$ units @ Rs. 4.25 |
| Jan 12 Received from vendor | $: 150$ units @ Rs. 4.10 |
| Jan 20 Received from vendor | $: 300$ units @ Rs. 4.50 |
| Jan 25 Received from vendor | $: 400$ units @ Rs. 4 |

Issue of material were as follows :
Jan $4=200$ units ; Jan $10=400$ units ; Jan $15=100$ units ;
Jan $19=100$ units ; Jan $26=200$ units ; Jan $30=250$ units.
Issues are to be priced on the principle of LIFO. Write out the Stores Ledger
Account in respect of the materials for the month of January.
27. From the following particulars, prepare stores ledger account under Simple Average Method:

Jan 5 Purchased 4,000 units at Rs. 4 per unit
Jan 20 Purchased 500 units at Rs. 5 per unit
Feb 5 Issued 2,000 units
Feb 10 Purchased 6,000 units at Rs. 6 per unit
Feb 15 Issued 4,000 units
Feb 18 Issued 1,000 units
Mar 4 Issued 2,000 units
Mar 12 Purchased 4,500 units at Rs. 5.50 per unit
Mar 24 Issued 2,000 units
28. XY Ltd., has purchased and issued the material ' M ' in the following order :

| 2002 |  | Unit | Unit Cost <br> (Rs.) |
| :---: | :--- | :---: | :---: |
| $1^{\text {st }}$ Dec. | Purchase | 300 | 3 |
| $4^{\text {th }}$ Dec. | Purchase | 600 | 4 |
| $6^{\text {th }}$ Dec. | Issue | 400 |  |
| $10^{\text {th }}$ Dec. | Purchase | 600 | 4 |
| $15^{\text {th }}$ Dec. | Issue | 1,000 |  |
| $20^{\text {th }}$ Dec. | Purchase | 400 | 5 |
| $23^{\text {rd }}$ Dec. | Issue | 200 |  |

Ascertain the quantity of closing stock as on $31^{\text {st }}$ December issues are made under the weighted average method.
29. Write short notes on: (a) Inventory system (b) Stock Levels (c) Coding of cost
30. The standard price of a material is fixed at Rs. 12 per unit. The following purchases and issues were made during March, 2010. Prepare the Stores Ledger Account showing how the cost of materials issued and value of balance in stock will be recorded under the standard price method.

| Dated | Particulars | Quantity | Rate |
| :---: | :--- | :---: | :---: |
| March 3 | Received | 1,800 units | 12 |
| March 8 | Received | 500 units | 14 |
| March 15 | Issued | 1,000 units |  |
| March 21 | Received | 600 units | 11 |
| March 24 | Issued | 700 units |  |
| March 28 | Received | 900 units | 13 |
| March 30 | Issued | 850 units |  |

Also certain the efficiency of purchasing materials.

## ESSAY TYPE QUESTIONS (10 MARKS)

31. Distinguish between Cost Accounting and Financial Accounting.
32. The accounts of Z Manufacturing Company for the year ended December, 2015 show the following :

| Factory Office Salaries | $\begin{aligned} & \text { Rs. } \\ & 6,500 \end{aligned}$ | Travelling Expenses | Rs. 2,100 |
| :---: | :---: | :---: | :---: |
| General Office Salaries | 12,600 | Traveller's Salaries \& Commission | 7,700 |
| Carriage Outward | 4,300 | Productive Wages | 1,26,000 |
| Carriage on Purchases | 7,500 | Depreciation - Plant, Machinery and Tools | 6,500 |
| Bad Debts Written off | 6,500 | Depreciation - Furniture | 300 |
| Repairs of plant, | 4,100 | Director's Fees | 6,000 |
| Machinery and Tools | 4,100 |  |  |
| Rent, Rates, Taxes \& |  | Gas and Water - |  |
| Insurance |  | Factory | 1,200 |
| -Factory | 8,500 | Office | 400 |
| -Office | 2,000 |  |  |
| Sales | 4,61,100 | Manager's Salary (3/4 Factory and 1/4 Office) | 10,000 |
| Stock of Materials - |  | General Expenses | 3,400 |
| $31^{\text {st }}$ Dec, 2015 | 62,800 | Income Tax | 2,500 |
| $31^{\text {st }}$ Dec, 2016 | 48,000 | Dividend | 2,000 |
| Materials Purchased | 1,85,000 |  |  |

Prepare statement giving the following information :
(a) Materials consumed
(b) Prime cost
(c) Factory cost
(d) Cost of Production
(e) Total cost
(f) Net profit
33. The following extracts of costing information relates to a commodity for the year ending 31-3-2013 :

| Purchase of Raw Materials | $\begin{aligned} & \text { Rs. } \\ & 48,000 \end{aligned}$ |
| :---: | :---: |
| Direct Wages | 40,000 |
| Stock on 1-4-2012 : of Raw Materials | 8,000 |
| of Finished Goods (1,600 quintals) | 6,400 |
| Stock on 31-3-2013 : of Raw Materials | 8,800 |
| of Finished Goods (3,200 quintals) | 12,800 |
| Works on Cost | 16,800 |
| Work in Progress : 1-4-2012 | 1,920 |
| 31-3-2013 | 6,400 |
| Office and Administrative Overheads | 3,200 |
| Sale of Finished Product | 1,20,000 |

Advertising, discount allowed and selling cost is Rs. 0.40 per quintal. During the year 25,600 quintals of commodity were produced. From the above information prepare the cost sheet.
34. Calculate from the following :
(a) EOQ
(b) Maximum Level
(c) Minimum Level
(d)Re-ordering Level

| Reorder period | -4 to 6 weeks |
| :--- | :--- |
| Maximum consumption | -100 units per week |
| Minimum consumption | -50 units per week |
| Normal consumption | -75 units per week |
| Annual consumption | $-36,000$ units |
| Cost per unit | - Re. 1 |
| Ordering cost | - Rs. 25 |
| Inventory carrying cost is $20 \%$ of unit value. |  |

35. Prepare a stores ledger account from the following information adopting FIFO method of pricing of issues of materials.

| 2018 |  |  |  |
| :--- | :---: | :--- | :--- |
| March | 1 | Opening Balance | 500 tonnes at Rs. 200 |
|  | 3 | Issue | 70 tonnes |
| 4 | Issue | 100 tonnes |  |
|  | 8 | Issue | 80 tonnes |
|  | 13 | Received from supplier | 200 tonnes at Rs. 190 |
|  | 14 | Returned from department | 'A' 15 tonnes |
| 16 | Issue | 180 tonnes |  |
| 20 | Received from supplier | 240 tonnes at Rs. 195 |  |
| 24 | Issue | 300 tonnes |  |
| 25 | Received from supplier | 320 tonnes at Rs. 200 |  |
| 26 | Issue | 115 tonnes |  |
| 27 | Returned from department | 'B' 35 tonnes |  |
| 28 | Received from supplier | 100 tonnes at Rs. 200 |  |

36. From the following transactions, prepare separately the stores ledger account, using the following methods :
(i) LIFO
(ii) FIFO

| Jan | 1 | Opening Balance | 100 units @ Rs. 5 each |
| :--- | :---: | :--- | :--- |
|  | 5 | Received | 500 units @ Rs. 6 each |
|  | 20 | Issued | 300 units |
| Feb | 5 | Issued | 200 units |
|  | 6 | Received back from work order | 10 units |
|  | 7 | Issued on 5 $5^{\text {th }}$ February |  |
|  | Received | 300 units |  |
|  | 20 | Issued | 180 tonnes |
|  | 25 | Returned to supplier | 50 units purchased on $7^{\text {th }}$ February |
|  | 26 | Issued | 200 units |
| March | 10 | Received | 500 units at Rs. 7 per unit |
|  | 15 | Issued | 300 units |

Stock verification on 15th March revealed a shortage of 10 units.
37. The standard price of a material is fixed at Rs. 20 per unit. Show the stores ledger entries as they would appear when using the standard price method.

May 2015
Units
Rate
Rs.
1 Balance in hand b/f
400
20
$\begin{array}{lll}4 & \text { Purchased } & 500 \\ 6 & \text { Issued } & 600\end{array}$
8 Issued 200
10 Purchased 700
12 Issued 150
14 Issued 200
16 Issued 100
19 Purchased 800
20 Issued 400
25 Issued 300
Calculate the Material Price Variances.
38. The following details have been obtained from the cost records of Raja Sekhar Ltd.,

Rs.
Stock of raw materials on $1^{\text {st }}$ Dec. $2016 \quad 75,000$
Stock of raw materials on 31 ${ }^{\text {st }}$ Dec. $2016 \quad 91,500$
Direct Wages 52,500
Indirect Wages 2,750
Sales 2,11,000
Work-in-progress $1^{\text {st }}$ Dec. $2016 \quad 28,000$
Work-in-progress $31^{\text {st }}$ Dec. 2016 35,000
Purchases of raw materials 66,000
Factory rent, rates and power $\quad 15,000$
Depreciation of plant and machinery 3,500
Expenses on purchases 1,500
Carriage outwards 2,500
Advertising 3,500
Office rent and taxes 2,500
Traveller's wages and communication 6,500
Stock of finished goods ( $1^{\text {st }}$ Dec. 2016) 54,000
Stock of finished goods (31 ${ }^{\text {st }}$ Dec. 2016) 31,000
Prepare a Cost sheet giving the maximum possible break up of costs and profit.
39. A manufacturer of Surat purchased three Chemicals $A, B$ and $C$ from Bombay. The invoice gave the following information :

| Chemicals A | $3,000 \mathrm{Kg} . @$ Rs. 4.20 per Kg. | 12,600 |
| :--- | :--- | :---: |
| Chemicals B | $5,000 \mathrm{Kg}$ @ Rs. 3.80 per Kg. | 19,000 |
| Chemicals C | $2,000 \mathrm{Kg} . @$ Rs. 4.75 per Kg. | 9,500 |
| Sales Tax | 2,055 |  |
| Railway Freight | 1,000 |  |
| Total Cost | $\mathbf{4 4 , 1 5 5}$ |  |

A shortage of 200 Kgs . In Chemical A of 280 Kgs . In Chemical B and 100 Kgs . In Chemical C was noticed due to breakages. At Surat, the manufacturer paid Octroi duty @ Re. 0.10 per Kg. He also paid Cartage of Rs. 22 for chemical A. Rs. 63.12 for chemical B and Rs. 31.80 for chemical C. Calculate the stock rate that you would suggest for pricing of chemicals assuming a provision of $5 \%$ towards further deterioration.
40. Two materials, X and Y , are used as follows :

Minimum usage - 50 units per week each;
Maximum usage - 150 units per week each;
Normal usage $\quad-100$ units per week each;
Ordering quantity : $X-600$ units and $Y-1,000$ units
Delivery period : X -4 to 6 weeks; Y - 2 to 4 weeks;
Calculate for each material :
(a) Minimum level;
(b) Maximum level; and
(c) Ordering level

## UNIT - II

## CHOOSE THE CORRECT ANSWER

1. Bonus under Halsey plan is paid
(a) At $100 \%$ of Time saved
(b) At $75 \%$ of Time saved
(c) At $80 \%$ of Time saved
(d) At $50 \%$ of Time saved
2. Halsey premium scheme is
(a) Individual incentive scheme
(b) Group incentive scheme
(c) Time and piece wage system
(d) Differential piece wage system
3. Bonus under Rowan scheme is paid
(a) As a proportion of Standard time to actual time
(b) As a proportion of actual time to Standard time
(c) As a proportion of Time saved to Standard time
(d) None of the above
4. Overhead is also known as
(a) On cost
(b) Basic cost
(c) Extra cost
(d) Chargeable expenses
5. Factory overhead is also termed as
(a) Sundry overhead
(b) Extra overhead
(c) Works overhead
(d) None of the above
6. Comprehensive machine hour rate includes
(a) Machine operator's wages
(b) Managing director's salary
(c) Income tax
(d) Office Rent
7. Charging output of overhead takes place when
(a) Allocation
(b) Absorption
(c) Apportionment
(d) None of the above
8. Appropriate basis for apportionment of materials handling charges is
(a) Material purchased
(b) Material in stock
(c) Material consumed
(d) Material wasted
9. Idle Time is
(a) Time spend by workers in factory
(b) Time spent by workers off their work
(c) Time spent by workers on their jobs
(d) None of the above
10. Time wages are paid on the basis of
(a) Standard time
(b) Time saved
(c) Output produced
(d) Actual time

Answers: 1. (d) 2. (a) 3. (c) 4. (a) 5. (c) 6. (a) 7. (b) 8. (c) 9. (b) 10. (d)
SHORT QUESTIONS (2 MARKS)
11. Define Labour turnover.
12. What is 'Piece rate system'?
13. What is Time rate system of wage payment?
14. Define Halsey Plan.
15. Define Overheads.
16. What is Machine Hour Rate?
17. What is 'Apportionment of overheads'?
18. Define Direct expenses.
19. What do you mean by Absorption Rate?
20. What is Variable overheads?

PARAGRAPH QUESTIONS (5 MARKS)
21. What are the features of a good wage system?
22. From the following particulars particulars prepare a statement showing the labour cost per man-day of 8 hours.
(a) Basic salary - Rs. 2 per day
(b) Dearness allowance - 25 ps for every point over 100 (cost of living index for working class) Current cost of living index is 700 points.
(c) Leave salary $-10 \%$ of (a) and (b)
(d) Employer's contribution to P.F - 8\% of (a), (b) and (c)
(e) Employer's contribution to state insurance $2.5 \%$ of (a), (b) and (c)
(f) Expenditure on amenities to labour Rs. 20 per head per mensem.
(g) Number of working days in a month -25 days of 8 hours each.
23. The following information is extracted from the records of a company for the month of Oct. 2018.
Number of employees at the beginning of the month ..... 950
Number of employees at the end of the month ..... 1050
Number of employees resigned ..... 10
Number of employees discharged ..... 30
Number of employees replaced in the variances ..... 20
Number of employees appointed due to expansion scheme ..... 120Calculate the Labour turnover rate.
24. The output of a worker $X$ is 100 units in 40 hours per week. Graduated time rate is Rs. 4 per hour. Ordinarily piece rate is Rs. 2 per unit. Show the earnings of the worker under
(a) Piece rate system and
(b) Time rate systems.
25. Find out Direct Labour Hour Rate from the following information:
(i) Total number of employees in the department 250.
(ii) Of the total employees 50 belong to the category of helpers, supervisors etc.,
(iii) The department works for total of 300 days in a year at 8 hours a day.
(iv) Of the total working days $5 \%$ are considered to be idle time.
(v) Total annual overheads of the department are Rs. 22,800
26. Compute Machine Hour Rate :

Cost of the Machine Rs. 25,000
Scrap Value Rs. 5,000
Effective working life of the machine 10,000 hours
Repairs for effective working life Rs. 5,000
Power consumption 5 units per hour at Rs. 3 per unit
Total hours worked 1,000 hours during the year 2018-2019
27. The factory overhead of Sai Ltd., for the month of January 2010 was Rs. 60,000. The output during the month was 12,000 units. Assuming there was no work-in-progress. Ascertain unit based absorption rate for the month.
28. Calculate Machine hour rate from the details of expenses relating to a machine :

| Name and Make | $:$ "Blux Fox"- Mark IV-Cutter |
| :--- | :--- |
| Life | $: 10$ years at 2000 hours per annum |
| Cost | $:$ Rs. 1,00,000 plus Rs. 10,000 towards installation |
| Life and value | $:$ Rs. 10,000 |
| Power consumption | $: 10$ units per hour |
| Oil Expenses | $: 25 \%$ of power |
| Repairs | $: 50 \%$ of depreciation |
| Consumable stores | $:$ Re. 1 per hour |

Rate of power is Re. 0.10 per unit and one operator is engaged on the machine at Rs. 4 per day of 8 hours.
29. What are the techniques of control of selling and distribution overhead?
30.The total overhead expenses of a factory are Rs. 4,46,380. Taking into account the normal working of the factory, overhead was recovered in production at Rs. 1.25 per hour. The actual hours worked were $2,93,104$. How would you proceed to close the books of accounts, assuming that besides 7,800 units produced of which 7,000 were sold, there were 200 equivalent units in work-in-progress? On investigation it was found that 50 percent of the unabsorbed overhead was on account of increase in the cost of indirect materials and indirect labour and the other 50 per cent was due to factory inefficiency. Give also the profit implication of this method.

## ESSAY TYPE QUESTIONS (10 MARKS)

31. Calculate the earnings of workers X and Y under (A) Straight piece rate system and (B) Taylor's differential piece rate system from the following details :

Standard time per unit $=12$ minutes
Standard rate per hour = Rs. 60
Differentials to be used $80 \%$ and $120 \%$
In a particular day of 8 hours, worker ' $X$ ' produced 30 units and worker ' $Y$ ' produced 50 units.
32. The following particulars are related to a product :

Standard output per day of 8 hours is 8 units
Normal wage per day is Rs. 12
Actual output by Ahmed in a day - 10 units
Calculate the earnings of Ahmed and also the labour cost per unit under the following methods :
(a) Time rate
(b) Piece rate
(c) Halsey plan
(d) Rowan plan
33. The scheme of wage payment in M/s. Rashmi Industries is: Basic wage rate Rs. 5 per hour for time worked, in addition, on time saved, at half the time rate as incentive.
Calculate the earnings and effective wage rate per hour of Panchamukhi, Ramappa and Siddanna who completed a job in 10 hours, 8 hours and 14 hours respectively, for which time allowed was 12 hours per worker.
What will be their earnings and effective wage rate, if they are paid according to Rowan's plan?
34. The following information pertains to three machines used in a shop:

|  | Machine A | Machine B | Machine C |
| :--- | :---: | :---: | :---: |
| Rent \& Taxes | 75 | Rs. | Rs. |
| Insurance | 2 | 1 | 120 |
| Power @ Re. O.08 per unit | 128 | 146 | 4 |
| Administrative Overheads | 50 | 37 | 270 |
| Factory Overheads | 307 | 252 | 76 |
| Repairs | 30 | 63 | 389 |
| Oil and Sundries | 8 | 15 | 15 |
| Depreciation | 40 | 37 | 10 |

Each machine uses 5 units of power per hour. Job No. 28 was completed with help of these machines. The cost of materials and labour were Rs. 5,000 and Rs. 5,000 respectively. Machine A was used for 35 hours, machine B for 10 hours and Machine C for 8 hours. Compute the machine hour rate and also cost of Job No. 28.
35. From the following particulars, calculate wages earned by workers $\mathrm{X}, \mathrm{Y}$ and Z
respectively under the Taylor's system :
Standard time allowed -10 units per hour
Normal wage rate - Rs. 10 per hour
Differential rates to be applied :
$90 \%$ of piece rate when below standard
$125 \%$ of piece rate when at or above the standard
The production on a day of 8 hours :
$X-75$ units; $Y-85$ units; $Z-120$ units
36. Raj works in a factory where the following particulars apply :

Normal rate per hour - Rs. 1.50
Normal piece rate - 20\% more of time rate
Expected output - 20 units per hour
Raj produces - 157 units in an 8 hour day
Calculate his wages for the day on:
(a) Time basis and
(b) Piece basis
37. Distinguish between allocation and apportionment of overheads. Mention also the bases of apportionment of expenses.
38. The following information relates to the activities of a production department for a certain period in a factory :

```
Material used
Direct wages
Hours of machine operation
Labour hours worked
Overheads chargeable to the department
```

Rs. 72,000
Rs. 60,000
20,000
24,000
Rs. 48,000
On one order carried out in the department during the period, the relevant data were :

| Material used | Rs. 4,000 |
| :--- | ---: |
| Labour hours | 1,650 |
| Direct wages | Rs. 3,300 |
| Machine hours | 1,200 |
| Overheads chargeable to the department | Rs. 48,000 |

Prepare a comparative statement of cost of this order by using the following three methods of recovery of overheads :
(i) Direct Labour Hour Rate Method
(ii) Direct Labour Cost Rate Method
(iii) Machine Hour Rate Method
39. Calculate the overheads allocable to production departments A and B. There are also two service departments $X$ and $Y$ :
$X$ renders service worth Rs. 12,000 to ' $Y$ ' and the balance to $A$ and $B$ as $3: 2$.
$Y$ renders service to $A$ and $B$ as $9: 1$

| Particulars | A | B | X | Y |
| :--- | :---: | :---: | :---: | :---: |
| Floor space (Sq. ft.) | 5,000 | 4,000 | 1,000 | 2,000 |
| Assets (Rs. in lakhs) | 10 | 5 | 3 | 1 |
| H.P. of machines | 1,000 | 500 | 400 | 100 |
| No. of workers | 10 | 50 | 50 | 25 |
| Light and fan points | 50 | 30 | 20 | 20 |

Expenses and charges are :

| Particulars | A | B | X |
| :--- | :---: | :---: | :---: |
| Floor space (Sq. ft.) | 5,000 | 4,000 | 1,000 |
| Assets (Rs. in lakhs) | 10 | 5 | 3 |
| H.P. of machines | 1,000 | 500 | 400 |
| No. of workers | 10 | 50 | 50 |

40. A factory has three production departments $\mathrm{A}, \mathrm{B}$ and C and two service departments X and Y . The overhead costs of the different departments incurred during. March 2007 are as follows :

| Departments | Costs (Rs.) |
| :---: | :---: |
| A | 10,000 |
| B | 8,000 |
| C | 6,000 |
| X | 5,000 |
| Y | 3,000 |

The costs of department $X$ have to be charged in the ratio of $2: 2: 1$ and those of department Y equally to Departments $\mathrm{A}, \mathrm{B}$ and C respectively. Find out overhead costs of each production department.

## UNIT - III

## CHOOSE THE CORRECT ANSWER

1. Process costing is suitable to industries where
(a) Production is carried on in two or more consecutive stages
(b) Production is as per customer specifications
(c) Specialized services are rendered
(d) Contracts are undertaken
2. Process cost is ascertained and recorded in
(a) Balance sheet
(b) Profit and loss account
(c) Separate statement
(d) Separate account in ledger
3. Finished products of a preceding process is
(a) The raw material for subsequent process
(b) Cost of production of subsequent process
(c) Credited to subsequent process
(d) None of the above
4. Scrap value of normal loss is
(a) Credited to P \& L A/c
(b) Show in Balance sheet
(c) Credited to Process Account
(d) Debited to Process Account
5. Abnormal Loss and Gain units are valued at
(a) Market value
(b) Scrap value
(c) Realisable value
(d) Cost per unit of the process-just like good output
6. Contract costing is the most appropriate method of costing for
(a) Construction industry
(b) Banking industry
(c) Textile mills
(d) Cement industry
7. Cost of a contract and profit or loss thereon are determined by preparing
(a) Cost sheet
(b) P \& L A/c
(c) Trading A/c
(d) Separate Ledger A/c
8. The basis for determining profit to be taken into account on incomplete contracts is
(a) Cost of contract
(b) Contract price
(c) Percentage of work certified as done
(d) Uncertified work
9. When there is loss on an incomplete contract, the transfer to $P \& L A / c$ is
(a) Proportionate loss to work certified
(b) Proportionate loss to cash received to work certified
(c) Full amount of the loss
(d) None of the above
10. Usually, a contract account of an incomplete contract reveals
(a) Gross profit
(b) Net profit
(c) Operating profit
(d) Notional profit

Answers: 1. (a) 2. (d) 3. (a) 4. (c) 5. (d) 6. (a) 7. (d) 8. (c) $\quad$ 9. (c) 10. (d)

## SHORT QUESTIONS (2 MARKS)

11. What is Process costing?
12. What is scrap value?
13. What is normal loss?
14. List out any two features of process costing.
15. What is abnormal loss?
16. What do you mean by Cost Plus Contract?
17. What do you meant by Contract costing?
18. What is Notional profit?
19. What is Escalation Clause?
20. What do you mean by Incomplete contracts?

## PARAGRAPH QUESTIONS (5 MARKS)

21. Describe the necessary adjustment usually required to close the books at the end of the costing period where the contract is incomplete.
22. What are the advantages of process costing?
23. From the following information you are required to prepare process account :

Materials consumed
Rs.
Direct labour
12,000
Manufacturing expenses
14,000
4,000
Input in Process A/c (10,000 units)
Output (9,400 units)
Value of normal wastage Rs. 8 per 100 units
24. Find out cost of output and Abnormal Loss :

Cost per unit of the process
Output of the process
Abnormal Loss
Scrap Value
Market price per unit

Rs. 80 1000 units
200 units
Rs. 20 per unit
Rs. 120
25. From the following information you are required to prepare process account :

| Materials consumed | -Rs. 12,000 |
| :--- | :--- |
| Direct labour | -Rs. 14,000 |
| Manufacturing expenses | -Rs. 4,000 |
| Input in Process A (10,000 units) | -Rs. 10,000 |
| Output (9,400 units) |  |
| Value of normal wastage | - Rs. 8 per 100 units |

26. In Process B, 75 units of a commodity were transferred from Process A at a cost of Rs. 1,310 . The additional expenses incurred by the process were Rs. $190.20 \%$ of the units entered are normally units. Prepare Process B account and Abnormal Gain Account.
27. A factory is engaged in the production of a Chemical $X$ and in the course of its manufacture a by-product Y , is produced, which after a separate process has a commercial value. For the month of January 2018, the following are the summarized cost data :

|  | Joint Expenses | Separate Expenses |  |
| :--- | :---: | :---: | :---: |
|  |  | $X$ | $Y$ |
|  | Rs. | Rs. | Rs. |
| Materials | 19,200 | 7,360 | 780 |
| Labour | 11,700 | 7,680 | 2,642 |
| Overheads | 3,450 | 1,500 | 544 |

The output for the month was 142 tonnes of $X$ and 49 tonnes of $Y$ and the selling price of $Y$ averaged Rs. 280 per tonne.

Assuming that the profit of $Y$ is estimated at $50 \%$ of the selling price, prepare an account showing the cost of $X$ per tonne.
28. From the information given below relating to an unfinished contract. Ascertain
(a) Profit on work certified
(b) Cost of work in progress at the end of the year.

|  | Rs. |  | Rs. |
| :--- | ---: | :--- | ---: |
| Materials sent to site | 86,000 | Work certified | $1,90,000$ |
| Labour engaged on site | 65,000 | Work uncertified | 7,700 |
| Plant issued | 80,000 | Materials in hand | 2,000 |
| Direct expenses | 8,000 | Wages accrued | 300 |
| Establishment charges | 4,000 | Cash received | $1,61,500$ |
| Materials returned to stores | 600 | Depreciation of plant | 7,000 |

Assume contract price is Rs. 2,50,000
29. The following is the summary of transactions as on $31^{\text {st }}$ December, 2006, relating to a special contract completed during the year. Contract price Rs. 6,000.

|  | Rs. |
| :--- | :---: |
| Materials bought from the market | 1,500 |
| Materials issued from the stores | 500 |
| Wages | 2,440 |
| Direct expenses | 294 |
| Office on cost $-10 \%$ of prime cost |  |

You are required to prepare a contract account keeping in view that material returned amounted to Rs. 240. Works cost on $25 \%$ on direct wages.
30. The following are the expenses of Balaji \& Co., in respect of a contract which commenced on 1st January 2010 :

Materials purchased
Rs.
Materials on hand
50,000
Direct Wages
2,500
Plant issued
75,000
Direct expenses
25,000
40,000

The contract price was Rs. $7,50,000$ and the same was duly received when the contract was completed in August 2010. Charge indirect expenses at $15 \%$ on wages; provide Rs. 5,000 for depreciation on plant and prepare the contract account and the Contractee's Account.

## ESSAY TYPE QUESTIONS (10 MARKS)

31. Explain Abnormal loss and Abnormal gain and state how they should be dealt with in Process Cost Accounts.
32. Explain the methods and applicability of contract costing.
33. Briefly explain the different methods of calculating profit on an incomplete contracts.
34. A product passes through three processes A, B and C. The details of expenses incurred on the three processes during the year 2018 were as under:

|  | Process A <br> Rs. | Process B <br> Rs. | Process C <br> Rs. |
| :--- | :---: | :---: | :---: |
| Units issued/ introduced cost | 10,000 |  |  |
| per unit Rs. 100 | Rs. | Rs. | Rs. |
| Sundry materials | 10,000 | 15,000 | 5,000 |
| Labour | 30,000 | 80,000 | 65,000 |
| Direct expenses | 6,000 | 18,150 | 27,200 |
| Selling price per unit of output | 120 | 165 | 250 |

Management expenses during the year were Rs. 80,000 and selling expenses were Rs. 50,000. These are not allocable to the processes.

Actual output of the three processes were :
$A: 9,300$ units; $B: 5,400$ units; $\quad C: 2,100$ unitsTwo thirds of the output of process.
A and one half of the output of process $B$ was passed on to the next process and the balance was sold. The entire output of process ' $C$ ' was sold.

The normal loss of the three processes, calculated on the input of every process was:

Process A 5\%; B $15 \%$ and C $20 \%$. The loss of units in process A was sold at Rs. 2 per unit, that of $B$ at Rs. 5 per unit and of process ' $C$ ' at Rs. 10 per unit.
35. A product passes through two distinct processes $A$ and $B$ and then to finished stock. The normal wastage of each process is as follows :

Process A-3\% of units entering the process
Process B-5\% of units entering the process
Wastage of process $A$ was sold at Re. 0.50 per unit and that of process $B$ at Rs. 1 per unit. 10,000 units were introduced into process $A$ at a cost of Rs. 2 per unit.

|  | Process A | Process B |
| :--- | :---: | :---: |
|  | Rs. | Rs. |
| Sundry materials | 2,000 | 3,000 |
| Wages | 10,000 | 16,000 |
| Overhead expenses | 2,100 | 2,375 |
| Actual output | 9,500 units | 9,100 units |

Prepare Process Account.
36. In given period, the production data and costs for a process were :

Production 2,100 units fully complete.
Production 700 units partly complete.
The degree of completion of the partly complete units were ;
Material - 80\% complete.
Labour \& overheads - 50\% complete.
The costs for the period were :
Material - Rs. 24,800
Labour - Rs. 16,750
Overheads - Rs. 36,200
Calculate the total equivalent production, the cost per completed unit and the value of the work-in-process.
37.Siva \& Co., undertook a contract, the contract price being Rs. 1,00,000. The contract commenced on 1st January 2009. During the year work certified was valued at Rs. 50,000 of which $75 \%$ was received. Work uncertified amounted to Rs. 10,000. The following expenses were incurred.

Materials - Rs. 30,000; Labour - Rs. 20,000; Plant - Rs. 10,000
Direct expenses - Rs. 8,000; Indirect expenses - Rs. 5,000
At the end of the year wages accrued were Rs. 2,000; Materials in hand Rs. 1,000 and plant in hand Rs. 1,500. Prepare process account. Also show how Work-in-progress appears in Balance Sheet.
38.Pari \& Co., obtained a contract for building a factory for Rs. 10,00,000. Building operations started on 1st April 2000and at the end of March 2001, they received from the contracted a sum of Rs. $3,90,000$ being $75 \%$ of the amount due on surveyor's certificate. The following additional information is given from the books of Pari \& Co., Ltd.,

| Stores issued to contract | Rs.2,00,000 |
| :--- | :--- |
| Stores on hand on 31.3.2001 | Rs. 10,000 |
| Wages paid | Rs. $1,80,000$ |
| Plant purchased | Rs.2,00,000 |
| Direct expenses | Rs. 25,000 |
| Overheads allocated to contract | Rs.12,000 |
| Work finished but not yet certified | Rs.12,000 |

Plant to be depreciated at $10 \%$. You are required to prepare an account showing profit and loss on contract on 31.3.2001 and amount of profit the company would be justified in taking to the credit of profit and loss account for the year.
39. From the following information, prepare contract account in tabular form and show how these figures appear in the balancesheet as on 31st December, 2017 :

| Particulars | CONTRACT |  |  |
| :--- | :---: | :---: | :---: |
|  | A | B | C |
| Commencement | $1-1-2017$ | $1-7-2017$ | $1-10-2017$ |
| Contract Price | Rs. | Rs. | Rs. |
| Raw material | 80,000 | 54,000 | 60,000 |
| Wages | 14,400 | 11,600 | 4,000 |
| General charges | 22,000 | 22,400 | 2,800 |
| Plant installed | 800 | 560 | 200 |
| Materials on hand | 4,000 | 3,200 | 2,400 |
| Wages accrued | 800 | 800 | 400 |
| Work certified | 800 | 800 | 360 |
| Cash received in respect of work certified | 40,000 | 32,000 | 7,200 |
| Work finished but not certified | 30,000 | 24,000 | 5,400 |

Depreciation is to be charged on the plant @ $10 \%$ which was installed on the opening date of the contract in each case.
40. Crystal company engaged in contract work has the following Trial Balance on 31st December, 2018 :

|  | Dr. | Cr. |
| :--- | :---: | :---: |
| Share Capital - Shares of Rs. 10 each | - | 35,180 |
| Profits \& Loss as on 1st Jan. 2002 | - | 2,500 |
| Provision for Depreciation on plant and tools | - | 6,300 |
| Contractee's A/c Contract No. 303 | - | $1,28,000$ |
| Land and Buildings (at cost) | 7,400 | - |
| Plant and Tools (at cost) | 5,200 | - |
| Bank Balance | 4,500 | - |
| Contract No. 303 : | 60,000 | - |
| Materials issued | 83,000 | - |
| Direct Labour | 4,000 | - |
| Expenses | 16,000 | - |
| Plant and Tools at side (at cost) | $1,80,100$ | $1,80,100$ |
|  |  |  |

Contract No. 303 having a contract price of Rs. 2,40,000 was begun on 1st January, 2018 and contractee pays $80 \%$ of the work completed and certified. The cost of work done since certification is estimated to Rs. 1,600.

After the Trial Balance was extracted on 31st December, 2018. Plant Costing Rs.3,200 was returned to the stores and materials at site on that date were valued at Rs.3,000.

Provision is to be made for sub contract cost amounting to Rs. 600 incurred on Contract No. 303 and for depreciation of all plant and tools @ $12 \%$ on cost.

Prepare Contract No. 303 Accounts showing the computation of profits, if any, for which credit may be taken in 2018 and prepare the Balancesheet of the Crystal Co., on 31st December 2018.

## UNIT - IV

## CHOOSE THE CORRECT ANSWER

1. Management account is suitable for
(a) Small business
(b) Co-operative societies
(c) Non-profit organizations
(d) Large Industrial and Trading Concerns
2. Management Accounts analyses Accounting data with the help of
(a) Tools and Techniques
(b) Statutory Forms
(c) Auditors
(d) None of the above
3. Basic objective of Management Account is
(a) To ascertain Profit \& Loss
(b) To settle disputes between Management and workers
(c) To report to different levels of Management on performance
(d) None of the above
4. A 'Ratio' is a
(a) Journal entry
(b) Business Transaction
(c) Relationship between two items
(d) None of the above
5. Current Ratio Indicates
(a) Ability to meet short term obligations
(b) Efficiency of Management
(c) Profitability
(d) None of the above
6. Break even point is
(a) Sales at which profit is high
(b) Sales at which there is loss
(c) Sales at which there is no profit or loss
(d) None of the above
7. Margin of safety is
(a) Sales at which there is profit
(b) Sales at which there is loss
(c) Sales in excess of BEP
(d) None of the above
8. The Liquid Ratio should be around
(a) 4
(b) 5
(c) 2
(d) 1
9. Solvency Ratio include
(a) Gross profit Ratio
(b) Fixed assets turnover
(c) Capital Gearing Ratio
(d) Profit Earning Ratio
10. $P / V$ Ratio is
(a) Price volume ratio
(b) Price variance ratio
(c) Contribution to sales ratio
(d) Total cost to sales ratio
Answers :
11. (d)
12. (a)
13. (c)
14. (c)
15. (a)
16. (c)
17. (c)
18. (d)
19. (c)
20. (c)

## SHORT QUESTIONS (2 MARKS)

11. Define Management Accounting.
12. List out the functions of Management Accounting.
13. What is 'Ratio Analysis'?
14. What is P/E Ratio?
15. What is marginal costing?
16. What do you mean by Current Ratio?
17. What is Break Even Point?
18. What is Angle of Incidence?
19. What is Contribution?
20. What is Margin of Safety?

PARAGRAPH QUESTIONS (5 MARKS)
21. What are the characteristics of Management Accounting?
22. What are the uses of Ratio Analysis?
23. Veena Ltd., submit the following details for the year ending 31-3-2018. Calculate Net Profit Ratio

|  | Rs. |
| :--- | ---: |
| Sales | $2,00,000$ |
| Gross Profit | 60,000 |
| Administration, selling and distribution expenses | 25,000 |
| Other expenses | 10,000 |
| Income from Investments | 15,000 |
| Loss on sale of machine | 5,000 |

24. Ascertain Operating Profit Ratio from the following details :

|  | Rs. |
| :--- | :---: |
| Net Profit after Tax | 80,000 |
| Profit on Sale of Buildings | 30,000 |
| Loss on sale of land | 20,000 |
| Preliminary Expenses written off | 10,000 |
| Provision for Tax | 40,000 |
| Interest on Debentures paid | 20,000 |
| Net Sales | $7,00,000$ |

25. From the following Balance Sheet of Sudarshan Co., Ltd., you are required to calculate :
(a) Cash Ratio
(b) Liquidity Ratio

Balance Sheet

| Liabilities | Rs. | Assets | Rs. |
| :--- | ---: | :--- | ---: |
| Share capital | $4,00,000$ | Equipment (net) | $2,70,000$ |
| Retained profit | $1,01,000$ | Investment (short-term) | 70,000 |
| Unpaid dividends | 16,000 | Inventory | $1,80,000$ |
| Creditors | 90,000 | Debtors | $1,26,000$ |
| Bills payable | 60,000 | Cash | 10,000 |
|  |  | Preliminary expenses | 11,000 |
|  | $6,67,000$ |  | $6,67,000$ |

26. Calculate Debtors collection period from the following details :

|  | 1994 | 1995 |
| :--- | ---: | ---: |
|  | Rs. | Rs. |
| Total sales | $5,80,000$ | $6,90,000$ |
| Cash sales | 80,000 | 90,000 |
| Debtors | 85,000 | 92,000 |
| Bills receivable | 5,000 | 8,000 |
| Provision for bad debts | 6,000 | 8,000 |

27. The following figures are extracted from the books of a manufacturing concern :

|  | Rs. |
| :--- | :---: |
| Direct material | $4,10,000$ |
| Direct Labour | $1,50,000$ |
| Fixed Overheads | $1,20,000$ |
| Variable Overheads | $2,00,000$ |
| Sales | $10,00,000$ |

You are required to calculate Break-even point in terms of rupee sales and also effect on Break-Even point of an increase of $10 \%$ in
(a) Fixed Overheads
(b) Variable Overheads
28. Cost-Volume Profit Analysis :

|  | Rs. |
| :--- | ---: |
| Present Sales | $1,00,000$ |
| Variable Cost | 60,000 |
| Fixed Cost | 20,000 |

Ascertain the effect of $10 \%$ reduction of selling price on :
(a) P/V Ratio
(b) Break Even Point

Also calculate the sales required to maintain the profit at the present level.
29. The P/V Ratio of a firm dealing in precision instruments is $50 \%$ and margin of safety is $40 \%$.
You are required to work-out break even point and the net profit if the sales volume is Rs. $50,00,000$. If $25 \%$ of variable cost is labour cost, What will be the effect on BEP and profit when labour efficiency decreased by $5 \%$
30. From the particulars given below calculate :
$\begin{array}{lll}\text { (a) Break even point } & \text { (b) Profit or loss when sales are Rs. 12,000 and }\end{array}$
(c) Sales required to earn a profit of Rs. 5,000

|  | Sales <br> Rs. | Profit/Loss $(-)$ <br> Rs. |
| :--- | :---: | :---: |
| Period 1 | 10,000 | -500 |
| Period 2 | 14,000 | 1,500 |

## ESSAY TYPE QUESTIONS (10 MARKS)

31. Distinguish between Management Accounting and Financial Accounting.
32. Explain the different ways of classifying Ratios and their respective purposes.
33. Following is the Balance Sheet of Shankar Ltd., as on 31-12-2017.

|  | Rs. |  | Rs. |
| :--- | ---: | :--- | ---: |
| Share capital | 60,000 | Fixed assets | $1,30,000$ |
| Reserves | 40,000 | Stock | 30,000 |
| 6\% Debentures | 70,000 | Debtors | 20,000 |
| Creditors | 14,000 | Bills receivable | 15,000 |
| Bills payable | 6,000 | Cash in hand | 5,000 |
| Bank overdraft | 10,000 |  |  |
|  | $2,00,000$ |  | $2,00,000$ |

Other information :
(a) Net sales Rs. 3,00,000
(b) Cost of goods sold Rs. 2,50,000
(c) Opening Stock Rs. 20,000
(d) Number of working days 360 days.

Calculate :
(a) Current Ratio
(b) Liquid Ratio
(c) Inventory Turnover Ratio
(d) Average collection period
(e) Debt-Equity Ratio.
34. From the following information make out a statement of proprietors funds with as many details as possible :
(1) Current Assets
(2) Current Liabilities
(3) Stocks
(4) Fixed Assets
(a) Current ratio 2.5
(b) Liquidity ratio 1.5
(c) Proprietary ratio (fixed assets/ proprietary fund) 0.75
(d) Working Capital

Rs. 60,000
(e) Reserves and Surplus

Rs. 40,000
(f) Bank Overdraft

Rs. 10,000
(g) There is no long-term or fictitious assets.
35. With the help of the following ratios regarding Indhu films draw the Balancesheet of the company for the year 2017 :

| Current Ratio | 2.5 |
| :--- | :--- |
| Liquidity Ratio | 1.5 |
| Net working capital | Rs. $3,00,000$ |
| Stock Turnover Ratio |  |
| (Cost of Sales/Closing Stock) | 6 Times |
| Gross Profit Ratio | $20 \%$ |
| Debt Collection Period | 2 months |
| Fixed Assets Turnover Ratio |  |
| (On Cost of Sales) | 2 Times |
| Fixed Assets to Shareholders Net Worth | 0.80 |
| Reserves \& Surplus to capital | 0.50 |

36. Assuming that the cost structure and selling price remain the same in Periods I and II. Find out:
(a) Profit Volume Ratio
(b) Fixed Cost and BEP
(c) Profit when Sales are Rs. 1,00,000
(d) Sales required to earn a profit of its Rs. 20,000
(e) Margin of Safety for II period

| Period | Sales | Profit |
| :---: | :---: | :---: |
| I | $1,20,000$ | 9,000 |
| II | $1,40,000$ | 13,000 |

37. Position of Alfa Ltd., for the year 2017 :

|  | Rs. |
| :--- | :---: |
| Sales | $2,00,000$ |
| Variable cost | $1,50,000$ |
| Gross profit | 50,000 |
| Fixed overheads | 15,000 |
| Net profit | 35,000 |

From the above particulars find out:
(a) Profit - Volume Ratio
(b) Break-Even Point
(c) Margin of Safety from the sales of Rs. 3,00,000
(d) Net Profit from the sales of Rs. 3,00,000
(e) Additional sales required to cover an increase of Rs. 3,000 per annum in the Sales Manager's salary.
38. Sales price

Variable manufacturing cost
Variable selling cost
Fixed factory overheads
Fixed selling costs

- Rs. 20,000
- Rs. 11 per unit
- Rs. 3 per unit
- Rs. 5,40,000 per year
- Rs. 2,52,000 per year

Calculate :
(a) Break even point in volume and value
(b) Sales required to earn a profit of Rs. 60,000
(c) Sales required to earn a profit of $10 \%$ of sales
39. You are given the following data for the year 2001 of a concern.

|  | Rs. |
| :--- | :---: |
| Variable Cost | $6,00,000$ |
| Fixed Cost | $3,00,000$ |
| Net Profit | $1,00,000$ |
| Sales | $10,00,000$ |

Find: (a) P/V Ratio
(b) B.E.P.
(c) Profit when sales is Rs. 12,00,000 and
(d) Sales in Rupees to earn a profit of Rs. 2,00,000
40. The information about Raj \& Co., are given below :
(a) Profit-Volume ratio $20 \%$
(b) Fixed Cost Rs. 36,000
(c) Selling Price per unit Rs. 150

Calculate:
(a) B.E.P. (in Rs.)
(b) B.E.P. (in units)
(c) Variable cost per unit
(d) Profit on sales of Rs. 4,00,000

## UNIT - V

## CHOOSE THE CORRECT ANSWER

1. Budgeting is
(a) A Technique
(b) A method of costing
(c) Maintaining ledger Accounts
(d) None of the above
2. Sales Budget is
(a) Budget of output to be sold
(b) Budget for selling expenses
(c) Budget of Revenue and expenses
(d) A list of incentives to salesmen
3. Consumption of Raw material is based on
(a) Production
(b) Sales
(c) Cash
(d) Market
4. Purchase Budget refers to
(a) Purchase of Fixed Assets
(b) Purchase of Raw materials
(c) Purchase of Advertising and distribution materials
(d) Purchase of office supplies
5. A production budget is based on
(a) Cash Budget
(b) Overheads Budget
(c) Sales Budget
(d) Purchase Budget
6. A master budget is
(a) Budget for Assets and Liabilities
(b) Budget of Profit or Loss
(c) Budget for managerial remuneration
(d) Budget for operations of the entire organization
7. A Flexible Budget is
(a) Budget for different capacity levels
(b) Budget for different departments
(c) Budget for receipts and payments
(d) None of the above
8. Standard costs are determined on
(a) Zero base
(b) The basis of trade cycle
(c) Scientific basis
(d) None of the above
9. Standard costing is helping the management in
(a) Increasing the overall efficiency
(b) Cost reduction
(c) Increasing production efficiency
(d) None of the above
10. Time and motion study is widely adopted in setting up standard.
(a) Material cost
(b) Material price
(c) Labour cost
(d) All of the above

Answers: 1. (a) 2. (a) 3. (a) 4. (b) 5. (c) 6. (d) $\quad$ 7. (a) 8 8. (a) $\quad$ 9. (b) 10. (d)

## SHORT QUESTIONS (2 MARKS)

11. What is a 'Budget'?
12. Define 'Budgetary Control'.
13. What is Forecasting?
14. What do you mean by Production Budget?
15. What is Master Budget?
16. List out any two objectives of Budgetary Control.
17. What do you mean by Labour variances?
18. What is Standard Costing?
19. What is material variances?
20. What do you meant by Overhead variances?

## PARAGRAPH QUESTIONS (5 MARKS)

21. What are the essentials of a good Budgetary Control System?
22. Prepare a Production Budger for 3 months ending 31-3-2017 for a factory producing 5 products, on the basis of the following information :

| Type of Product | Opening Stock <br> (Units) | Budgeted Sales <br> (Units) | Desired Closing <br> Stock (Units) |
| :---: | :---: | :---: | :---: |
| A | 5,000 | 20,000 | 4,000 |
| B | 6,000 | 25,000 | 6,000 |
| C | 10,000 | 50,000 | 11,000 |
| D | 1,000 | 10,000 | 1,000 |
| E | 2,000 | 5,000 | 5,000 |

23. Draw up a Flexible Budget of production at $75 \%$ and $100 \%$ capacity on the basis of the following data for a $50 \%$ activity :

|  | Per unit <br> Rs. |
| :--- | :---: |
| Materials | 100 |
| Labour | 50 |
| Variable expenses (direct) | 10 |
| Administrative expenses (50\% fixed) | 40,000 |
| Selling and Distribution expenses (60\% fixed) | 50,000 |
| Present production (50\% activity) | 1,000 units |

24. A firm produces two products called ' $A$ ' and ' $B$ '. The opening balance of the products are 7,800 units and 8,400 units respectively. The estimated sales during a month are 14,700 units and 15,300 units respectively. The required closing balances are 8,200 and 9,000 units. Prepare Production Budget.
25. A company which supplies its output on contract basis as component to an assembling firm has a contract to supply 10,000 units of its only product during 2016. The following were the budgeted expenses and revenue.
Material
Rs. 15 per unit
Wages
Rs. 10 per unit
Works expenses - (Fixed)
Rs. 40,000
(Variable)
Rs. 4 per unit
General expenses (all fixed)
Rs. 60,000
Profit is $20 \%$ on sales price.

Prepare the budget for 2016 showing the costs and profit.
26. The standard material and standard cost per kg., of material required for the production of one unit of product A is as follows :

Material
$-5 \mathrm{kgs}$
Standard price - Rs. 5 per kgs
The Actual production and related material data are as follows
400 units of Product A
Material used 2,200 kgs
Price of material Rs. 4.50 kgs
Calculate Material Variances.
27. From the following information, Calculate the Material Mix Variance :

| Materials | Standard | Actual |
| :---: | :---: | :---: |
| A | 200 units @ Rs. 12 | 160 units @ Rs. 13 |
| B | 100 units @ Rs. 10 | 140 units @ Rs. 10 |

Due to shortage of Material A, it was decided to reduce consumption of A by $15 \%$ and increase that of Material B by $30 \%$
28. From the data given below, Calculate Labour Variances for the two departments :

|  | Dept. A | Dept. B |
| :--- | :---: | :---: |
| Actual Gross Wages | Rs. 2,000 | Rs. 1,800 |
| Standard hours produced | 8,000 | 6,000 |
| Standard Rate per hour | 30 paise | 35 paise |
| Actual hours worked | 8,200 | 5,800 |

29. From the following data, calculate Labour variance;

Standard time per unit

- 2.5 hours

Actual hours

- 2,000

Standard wage rate

- Rs. 2 per hour

Actual output

- 1,000 units

Actual wages

- Rs. 4,500
$20 \%$ of the actual time has been lost due to machinery break down.

30. From the following data, Calculate Overhead Variances :

|  | Budgeted (Rs.) | Actual (Rs.) |
| :--- | :---: | :---: |
| Fixed overheads | $3,00,000$ | $3,20,000$ |
| Output in units | 30,000 | 26,000 |
| Working hours | 75,000 | 60,000 |

## ESSAY TYPE QUESTIONS (10 MARKS)

31. Explain the advantages of Budgetary Control.
32. You are required to prepare a Selling Overhead Budget from the estimates given below :

Advertisement
Rs. 1,000
Salaries
Rs. 1,000
Expenses of the sales department (Fixed)
Salaries and Dearness Allowances
Commission at $1 \%$ on sales affected
Carriage outwards : Estimated at 5\% on sales.
Agent Commission : $61 / 2$ on sales.
The sales during the period were estimated as follows :
Rs. 80,000 including Agent's Sales
Rs. 8,000
Rs. 90,000 including Agent's Sales
Rs. 10,000
Rs. 1,00,000 including Agent's Sales
Rs. 10,500
33. A Glass manufacturing company requires you to calculate Master Budget and present the budget for the next year from the following information :
Sales:

Thoughened Glass
Bent Thoughened Glass
Direct Material Cost Direct Wages
Factory overheads :
Indirect Labour :
Works manager Rs. 500 p.m
Foremen Rs. 400 p.m
Stores and Spares
Depreciation on Machinery Light and Power
Other Sundries
Administration Selling and Distribution
Repairs and Maintenance

Rs. 3,00,000
Rs. 5,00,000
$60 \%$ of Sales
20 workers @ Rs. 150 p.m

Rs. 750
Rs. 3,000
(b) $50 \%$ of credit sales are realised in the month following the sales and the remaining $50 \%$ in the second month following. Creditors are paid in the month following the month following the month of purchase.
(c) Cash at Bank on 1.4.2000 (estimated) Rs.25,000
35. The expenses budget for production of 10,000 units in a factory is furnished below :

|  | Per Unit |
| :--- | :---: |
| Materials | 70 |
| Labour | 25 |
| Variable expenses | 20 |
| Fixed Expenses (1,00,000) | 10 |
| Variable Expenses (Direct) | 5 |
| Selling Expenses (10\%) | 13 |
| Distribution Expenses (20\%) | 7 |
| Administrative Expenses | 5 |
| Total Cost Per Unit | $\mathbf{1 5 5}$ |

Prepare a Budget for production of
(a) 8,000 units
(b) 6,000 units
(c) Indicate cost per unit at both levels

Assume that administration expenses are fixed for all level of production.
36. Draw up a Flexible Budget for overhead expenses on the basis of the following data and determine the overheads rates at $70 \%, 80 \%$ and $90 \%$ plant capacity.

|  | At 70\% Capacity Rs. | At 80\% Capacity Rs | At 90\% Capacity Rs |
| :---: | :---: | :---: | :---: |
| Variable Overheads : |  |  |  |
| Indirect Labour |  | 12,000 | - |
| Stores including spares |  | 4,000 | - |
| Semi-Variable Overheads : |  |  |  |
| Power (30\% Fixed, 70\% Variable) |  | 20,000 | - |
| Repairs and Maintenance (60\% |  | 2,000 |  |
| Fixed and 40\% Variable) | - |  |  |
| Fixed Overheads : |  | 11,000 |  |
| Depreciation |  | 3,000 | - |
| Insurance |  | $10,000$ |  |
| Salaries |  |  |  |
| Total Overheads | - | 62,000 | - |

37. The standard material cost for 100 kg of Chemical D is made up of :

Chemical A - 30 kg @ Rs. 4 per kg
Chemical B - 40 kg @ Rs. 5 per kg
Chemical C - 80 kg @ Rs. 6 per kg
In a batch, 500 kg of Chemical D were produced from a mix of :
Chemical A -140 kg at a cost of Rs. 588
Chemical B -220 kg at a cost of Rs. 1,056
Chemical C $\quad-440 \mathrm{~kg}$ at a cost of Rs. 2,860
How do the yield, mix and the price factors contribute to the variance in the actual cost per 100 kg of Chemical D over the Standard Cost?
38. The standard time and rate for unit components are given below :

Standard hours - 20
Standard rate - Rs. 5 per hour
Actual data and related information are as under :
Actual production 1,000 units
Actual hours - 20,500 hours
Actual rate per hour - Rs. 4.80
Calculate :
(a) Labour Cost Variance
(b) Labour Efficiency Variance
(c) Labour Rate Variance
39. Budgeted hours for March 2000, 180 hours.

Standard rate of article produced per hour 50 units.
Budgeted fixed overheads Rs. 2,700.
Actual production March 2000, 9,200 units.
Actual hours for production 175 hours.
Actual fixed overheads Rs. 2,800.
Calculate Overhead Variances :
(1) Overhead Budget Variance
(2) Overhead Volume Variance
(3) Overhead Efficiency Variance
(4) Over Capacity Variance
40. The standard cost of a certain Chemical mixture is , $40 \%$ Material A at Rs. 25 per kg
60\% Material B at Rs. 36 per kg.
During a period, the Actual usage and prices were,
150 kgs of Material A at Rs. 27 per kg.
260 kgs of Material B at Rs. 34 per kg.
The actual output was 360 kgs .
Calculate :
(a) Material Cost Variance
(b) Material Price Variance
(c) Material Usage Variance
(d) Material Mix Variance
(e) Material Yield Variance

