Paper 8- Cost Accounting

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| Full Marks : 100 | Time allowed: 3 hours |
|--|--------------------------------------|
| Section A Question 1 is compulsory. Answer all questions under ec | ich sub division |
| 1. Answer the following questions: | |
| (a) Choose the correct answer from the given four alternatives: | [10×1=10] |
| (i) Selling and Distribution overheads are absorbed on the basis of (a) Rate per unit (b) Percentage on works cost (c) Percentage on selling price of each unit (d) Any of the above | |
| (ii) In process, conversion cost means (a) Cost of direct material, direct labour, direct expenses (b) Direct labour, direct expenses, indirect material, indirect labor (c) Prime cost plus factory overheads (d) All costs up to product reaching the consumer, less direct material | r, indirect expenses terial costs |
| (iii) Budget are shown in terms (a) Qualitative (b) Quantitative (c) Materialistic (d) Both(b) and(c) | |
| (iv) Cost of Idle time arising due to non availability of raw material is (a) Charged to costing profit and loss A/c (b) Charged factory overheads (c) Recovered by inflating the wage rate (d) Ignored | |
| (v) CAS 21 stands for (a) Capacity Determination (b) Joint Cost (c) Direct Expenses (d) None of these | |

- (vi) In Reconciliations Statement Expenses shown only in cost account are
 - (a) Added to financial profit
 - (b) Deduction from financial profit
 - (c) Ignored
 - (d) Deduction from costing profit
- (vii) In a job cost system, costs are accumulated
 - (a) On a monthly basis
 - (b) By Specific Job
 - (c) By Department or process
 - (d) By kind of material used

(viii) Difference between standard cost and actual cost is called as

- (a) Wastage
- (b) Loss
- (c) Variance
- (d) Profit

(ix) A firm has fixed expenses ₹ 85,000, sales ₹ 4,00,000 and profit ₹ 75,000.The P/V ratio of the firm is

- (a) 18.75%
- (b) 21.25%
- (c) 40.00%
- (d) 88.24%

(x) There is a loss as per financial accounts ₹ 25,500, donations not shown in cost accounts
 ₹5,500.What would be the profit or loss as per cost accounts.

- (a) Loss ₹31,000
- (b) Profit ₹ 31,000
- (c) Loss ₹ 20,000
- (d) Profit ₹20,000

(b) Match the statement in Column I with the most appropriate statement in Column II: $[1 \times 5 = 5]$

| | Column I | | Column II |
|-------|------------------------------------|-----|-----------|
| (i) | Cost of Utilities | (A) | CAS 19 |
| (ii) | Joint Cost | (B) | CAS-21 |
| (iii) | Quality Control | (C) | CAS-22 |
| (i∨) | Royalty And Technical Know How Fee | (D) | CAS 8 |
| (~) | Manufacturing Cost | (E) | CAS-20 |

(c) State whether the following statements are True' or 'False':

- (i) Cash Discount is generally excluded completely from cost.
- (ii) Cost control accounts are prepared on the basis of double entry system.
- (iii) Goodwill written off appears only in cost accounts.
- (iv) Finance Cost shall form part of Direct Expenses.
- (v) By-product may undergo further processing before sale.

(d) Fill in the blanks suitably:

- (i) If the actual loss in a process is less than the normal loss, the difference is known as
- (ii) In hospital the cost unit is _____.
- (iii) A cost which does not involve any cash outflow is called ______ or _____.
- (iv) Margin of safety is sales -- _____

[1x5=5]

[1x5=5]

Answer:

1(a)

| i.(d) | ii.(b) | iii.(d) | iv.(a) | v.(d) |
|-------------|--------------|---------------|-----------------|----------------|
| vi.(a) | vii.(b) | viii.(c) | ix.(c) | x.(c) |
| | | | | |
| 1(b) | | | | |
| | | | | |
| i.(D) | ii.(A) | iii.(B) | iv.(E) | v.(C) |
| | | | | |
| | | | | |
| 1(c) | | | | |
| i.(T) | ii.(T) | iii.(F) | iv.(F) | v.(T) |
| | | | | |
| 1(d) | | | | |
| i.(Abnormal | ii.(per bed) | iii.(Notional | iv.(Fixed Cost) | v.(Capacity |
| gain) | | Cost,Inputed | | Determination) |

Section **B**

Cost)

Answer any five questions out of seven questions

2. (a) From the following details you are required to value the closing inventory: [10+5=15]

At the end of week 5

(i) FIFO method, (ii) LIFO method and (iii) Weighted Average method of pricing issues.

Opening Balance: Nil Week 1 Received 2,400 units @ ₹12 per unit; Week 2 Received 3,600 units @ ₹13 per unit: Week 3 Issued 1,200 units Week 4 Received 1,200 units @ ₹14 per unit; Week 5 issued 3,600 units.

(b)The Standard hours for job Y is 200 hours. The Job has been completed by Amar in 120 hours, Akbar in 140 hours and Anthony in 190 hours. The bonus system applicable to the job is as follows:

| Percentage of time saved to time allowed | Bonus |
|--|-------------------|
| Saving up to 10% | 10% of time saved |
| From 11 % to 20% | 15% of time saved |
| From 21% to 40 % | 20% of time saved |
| From 41 % to 100% | 25% of time saved |

The rate of pay ₹10 per hour. Calculate the total earring of each worker and also the rate of earnings per hour.

Answer:2(a)

| | Door | into | | FIFO | | | LIFO | | | |
|------|-------|------------|----------------|----------|-------------------------|----------------|----------------|----------|-------------------------|----------------|
| Week | Rece | eipts | lss | ue | Closin | g Stock | lssue | | Closing Stock | |
| | Qty | Rate(₹) | Qty | Rate(₹) | Qty | Rate(₹) | Qty | Rate(₹) | Qty | Rate(₹) |
| 1 | 2,400 | 12 | | | 2,400 | 12 | | | 2,400 | 12 |
| 2 | 3,600 | 13 | | | 2,400 | 12 12 | | | 2,400 | 12 12 |
| | | | | | 5,000 | 15 | | | 5,000 | 15 |
| 3 | | | 1,200 | 12 | 1,200 3,600 | 12 13 | 1,200 | 13 | 2,400 2,400 | 12 13 |
| 4 | 1,200 | 14 | | | 1,200 3,600 1,200 | 12 13 14 | | | 2,400 2,400 1,200 | 12 13 14 |
| 5 | | | 1,200 2,400 | 12 13 | 1,200 1,200 | 13 14 | 1,200 2,400 | 14 13 | 2,400 | 13 |
| | Value | of Closing | Stock | | 32, | 400 | | | 31, | 200 |

Weighted Average method of pricing issues.

| Week | Particulars | Qty | Rate(₹) | Value(₹) |
|------|--------------|-------|---------|----------|
| 1 | Receipts | 2,400 | 12 | 28800 |
| 2 | Receipts | 3,600 | 13 | 46800 |
| | Balance | 6,000 | 12.6 | 75600 |
| 3 | lssue | 1,200 | 12.6 | 15120 |
| | Balance | 4,800 | 12.6 | 60480 |
| 4 | Receipts | 1,200 | 14 | 16800 |
| | Balance | 6,000 | 12.88 | 77280 |
| 5 | lssue | 3,600 | 12.88 | 46368 |
| Clos | sing Balance | 2,400 | | 30,912 |

| | | | T I I | - · | | | |
|-----|-----|--------------------|--------------|---------|----------|------------|---------|
| - 1 | n | ISTATAMANT Shawina | INTAL | Farnina | and Pate | ot Farnina | nornour |
| | N I | | IUIUI | LUIIIIU | | | |
| • | | | | | | | |

| | Particulars | Amar | Akbar | Anthony |
|---|---|---------|--------|---------|
| А | Standard hours of job (hours) | 200 | 200 | 200 |
| В | Actual Time taken on the Jobs (hours) | 120 | 140 | 190 |
| С | Time Saved (hours) | 80 | 60 | 10 |
| D | Percentage of time saved to time allowed [C X 100/A) | 40% | 30% | 5% |
| Е | Bonus Hours (as per working Note) (hours) | 13 | 9 | 1 |
| F | Total Hours to be paid [B + E] | 133 | 149 | 191 |
| G | Total Earnings @ ₹ 10 per hour (₹) | 1,330 | 1,490 | 1,910 |
| Н | Rate of Earning per hour [Total earning/Actual Time] | 11.0833 | 10.642 | 10.053 |

Working Note: Calculation of Bonus as Percentage of time saved:

Amar: 20 X 10% + 20 X 15 % + 40 X 20% = 13 hours

Akbar 20 X 10 % +20 X 15% + 20 X 20% = 9 hours

Anthony 10 X 10%=1hours

- **3. (a)** How would you treat overtime in cost record as per CAS-7. [6+9=15]
 - (b) The following represent the Trading and Profit and Loss Account of a manufacturer of a standard fire extinguisher:

| Dr. | | | Cr. |
|---------------------------------|------------|----------------------------|------------|
| Particulars | Amount (₹) | Particulars | Amount (₹) |
| To,Mateial used | 58,300 | By Sales A/c | 1,50,000 |
| | | By Stock of Finished Goods | |
| To, Productive Wages A/c | 37,220 | A/c | 3,625 |
| To, Factory Expenses A/c | 28,110 | | |
| To Gross Profit c/d | 41,055 | By Work -in-Progress | |
| | | Material | 5,600 |
| | | Labour | 3,120 |
| | | Overheads | 2,340 |
| | 1,64,685 | | 1,64,685 |
| To, Administration expenses A/c | 27,300 | By Gross Profit b/d | 41,055 |
| To Net Profit | 13,755 | | |
| | 41,055 | | 41,055 |

3,100 Extinguishers were manufactured during the year, and 3,000 were sold during the same period. The cost records showed that Factory overheads work out at ₹16.50 and Administrative overheads at ₹18.125 per article produced: the Cost Accounts showing an estimated total profit of ₹14,062.5 for the year.

From the forgoing information you are required to prepare

- (a) Factory Overhead Control of Account
- (b) Administration overheads Control Account in costing books and
- (c) An account showing reconciliation between the total net profit as per the Cost Accounts and the net profit shown in Financial Books.

Answer:3(a)

Treatment of overtime in Cost Records :

As per CAS-7, Overtime Premium shall be assigned directly to the cost object or treated as overheads depending on the economic feasibility and specific circumstances requiring such overtime. When overtime is worked due to exigencies or urgencies of the work, the Basic/normal payment is treated as Direct Labor Cost and charged to Production or cost unit on which the worker is employed. Whereas the amount of premium (extra amount) is treated as overhead. If overtime is spent at the request of the customer , then the entire amount (including over time premium) is treated as direct wages and should be charged to the job. When the overtime is worked due to lack of capacity as general policy of the company then the total amount paid is treated as direct wages which is computed at the estimated rate based on the figures of the previous years. Overtime worked on account of the abnormal conditions such as flood, earthquake, etc., should not be charged to cost, but to Costing Profit and Loss Account if integrated accounts are maintained. It will thus be seen that overtime involves payment of increased wages and should be resorted to only when extremely essential.

| Dr. Factory Overhead Control Account | | | | |
|--------------------------------------|----------|-----------------------------|--------|--|
| Particulars | Amount | Particulars | Amount | |
| To, GLA A/C | 28,110.0 | By,FG Control (3,100*16.50) | 51,150 | |
| To Over Recovery | 25,380.0 | By,WIP | 2,340 | |
| | 53,490.0 | | 53,490 | |

| Dr. | Administi | Cr. | |
|------------------|-----------|-------------------------------|----------|
| Particulars | Amount | Particulars | Amount |
| To, GLA A/C | 27,300.0 | By, FG Control (3,100*18.125) | 56,187.5 |
| To Over Recovery | 28,887.5 | By, WIP | |
| | 56,187.5 | | 56,187.5 |

4.(a) B Ltd is committed to supply 36,000 bearings per annum to CD Ltd. [8+7=15]
 On a steady basis. It is estimated that it costs 15 paisa as inventory holding cost per bearing per month and that the set-up cost per run of bearing manufacture is 486.

(i) What would be the optimum run size for bearing manufacture?

(ii) What is the minimum inventory holding cost at optimum run size?

(iii)Assuming that the company has a policy of manufacturing 9000 bearing per run, how much extra costs would the company be incurring as compared to the optimum run suggested in (i)?

(b) The product of a manufacturing concern passes through two processes A and B and then to finished stock. It is ascertained that in each process normally 5% of total weight is lost and 10 % is scrap which from processes A and realizes ₹96 per ton and ₹240 per ton respectively. the following are the figures relating to both the processes.

| | Process A | Process B |
|-------------------------------------|-----------|-----------|
| Material in tons | 1,200 | 84 |
| Cost of Materials per ton in rupees | 150 | 240 |
| Wages in rupees | 33,600 | 12,000 |
| Manufacturing Expenses in rupees | 9,600 | 6,300 |
| Output in tons | 996 | 936 |

Prepare Process Cost Accounts showing cost per ton of each process. There was no stock of work in progress in any process.

Answer:4(a)

(i)

Optimum Production Run Size(Q) = $\sqrt{\frac{2AS}{C}}$

Where, A=No. of units to be produced within one year S=Set-up cost per unit per annum C=Carrying cost per unit per annum

$$=\sqrt{\frac{2X36,000X486}{0.15X12}}=4,409(\text{approx})$$

(ii)Minimum Inventory Holding Cost, if run size is 4,409 units =Avergae inventory X carrying cost per unit =(4,409/2)X(.15 X 12) =₹3,968.10

(iii)Statement showing Total Cost of Production Run sizes of 4,409 and 9,000 bearings

| А | Annual Requirements | 36,000 | 36,000 |
|---|-------------------------------|---------|--------|
| В | Run Size | 4409 | 9000 |
| С | No. of Run (A/B) | 8.16 | 4 |
| D | Set up cost per run(₹) | 486 | 486 |
| Е | Total Set up Cost(C X D)(₹) | 3965.76 | 1944 |
| F | Average Inventory (B/2) | 2204.5 | 4500 |
| G | Carrying cost per unit p.a | 1.8 | 1.8 |
| Н | Total carrying cost(F X G)(₹) | 3968.1 | 8100 |
| | Total Cost(₹) | 7933.86 | 10044 |

(b)

| Dr. | Process A Account | | | | Cr. |
|------------------------------------|-------------------|-----------|----------------------------|-------|-----------|
| Particulars | Tons | Amount(₹) | Amount(₹) Particulars To | | Amount(₹) |
| To,Material | 1,200 | 1,80,000 | By Normal loss-Weight Loss | 60 | |
| To,wages | | 33,600 | Sale of Scrap | 120 | 11,520 |
| To,Expenses 9,600 By Abnormal loss | | 24 | 4,981 | | |
| By Process B A/c | | 996 | 206,699 | | |
| | | | | | |
| | 1,200 | 2,23,200 | | 1,200 | 2,23,200 |

| Dr. Process B Account | | Cr. | | | |
|-----------------------|------|-----------|----------------------------|------|-----------|
| Particulars | Tons | Amount(₹) | Particulars | Tons | Amount(₹) |
| To, Process A A/c | 996 | 206,699 | By Normal loss-Weight Loss | 54 | |
| To,Material | 84 | 5,880 | Sale of Scrap-Approx | 108 | 25,920 |
| To,Wages | | 12,000 | By Abnormal loss | | |
| To,Expenses | | 6,300 | By Process B A/c | 936 | 208,978 |
| To Abnormal Gain | 18 | 4,019 | | | |
| | | | | | |
| | 1098 | 230,879 | | 1098 | 234,898 |

5.(a) A hotel has a capacity of 150 single rooms and 30 double rooms.

[8+7=15]

The average occupancy of both single and double rooms is expected to be 80% throughout the year of 365 days. The rent for the double rooms has been fixed at 125 % of the rent of the single room. The costs are as under:

Variable costs: single room ₹ 330 each day: Double room ₹ 525 each per day. Fixed cost: ₹74,46,000

Calculate the rent chargeable for single and double rooms per day in such a way that the hotel earns a margin of safety of 20 % on hire of room.

(b) A company is manufacturing building bricks and fire bricks. Both the products require two processes. Brick forming and Heat treatment. The requirements for the two bricks are:

| | Building Bricks | Fire Bricks |
|-------------------------------|-----------------|-------------|
| Forming per 200 bricks | 6 hrs | 4 hrs |
| Heat treatment per 200 bricks | 4 hrs | 10 hrs |

Total costs of the two departments in one month were:

| Forming | ₹ 42,400 |
|----------------|----------|
| Heat Treatment | ₹ 97,600 |

Production during the month was:

| Building Bricks | 2,60,000 No's |
|-----------------|---------------|
| Fire Bricks | 1,40,000 No's |

Prepare statement of manufacturing costs for the two varieties of bricks.

Answer:5(a)

Total occupancy of single room in a year = 150 X 365 x 80 % = 43,800

Total occupancy of double room in a year = 30 X 365 X 80 % = 8,760

Total cost for the year:

Variable cost: (₹) For single room 43,800 X 330 = 1,44,54,000 For double room 8,760 X 525 = <u>45,99,000</u> 1,90,53,000

| Fixed cost | 74,46,000 |
|------------|-------------|
| Total Cost | 2,64,99,000 |

 Add: Margin of Safety @ 20%
 52,99,800

 Total Revenue
 3,17,98,800

Effective no of rooms= 43,800 x1 + 8,760 *1.25=54,750

Rate for single room= 3,17,98,800/54,750 = ₹ 580.80

Rate for double room = 580.80 X1.25= ₹ 726

(b) Statement showing Number Hours

| Particulars | Building Bricks | Fire Bricks | Total |
|---|-----------------|-------------|--------|
| Forming (2,60,000/200) X 6 (1,40,000/200) X 4 | 7,800 | 2,800 | 10,600 |
| Heat Treatment (2,60,000/200) X 4 (1,40,000/200) X 10 | 5,200 | 7,000 | 12,200 |
| Total | 13,000 | 9,800 | 22,800 |

Cost of forming per hour = 42,400/10,600 = 4

Cost of Heat treatment per hour = 97,600/12,200 = 8

| Particulars | Building Bricks | Fire Bricks | Total |
|-------------------------------|-----------------|-------------|---------|
| Forming (7 800 X 4) | 31,200 | 11,200 | 42,400 |
| (2,800 X 4) Heat Treatment | 41,600 | 56,000 | 97,600 |
| (5,200 X 8) (7,000 X 8) | | | |
| Total | 72,800 | 67,200 | 140,000 |

Statement showing computation of manufacturing costper two varieties of bricks

6.(a) A company produces single product which sell ₹40 per unit. [8+7=15] Variable cost is 30 per unit and fixed overhead for the year ₹12, 60,000.

Required:

- (i) Calculate sales value needed to earn a profit of 10% on sales.
- (ii) Calculate sales price per unit to bring BEP down to 1, 20,000 units.
- (iii) Calculate margin of safety sales if profit is ₹ 60,000.
- (b) PKN Itd wants to buy a new machine to replace one which I having frequent breakdown. It received offers for two models M1 and M2. Further details regarding these models are given below:

| | M1 | M2 |
|---|-----------|-----------|
| Installed Capacity (units) | 1,00,000 | 1,00,000 |
| Fixed Overhead per annum(₹) | 24,00,000 | 10,00,000 |
| Estimated profit at the above capacity(₹) | 16,00,000 | 10,00,000 |

The product manufactured using this type of machine (M1 or M2) is sold $\overline{\mathbf{e}}$ 100 per unit. You are required to determine:

- (i) Break-even level of sales for each model.
- (ii) The level of sales at which both the models will earn the same profit.
- (iii) The model suitable for different level of demand for the product.

Answer 6(a)

(i) Let the units to be sold to earn a profit of 10 % on sales

Sales Value = 40xV.C = 30xProfit=10 % x 40x=4x

Sales = V.C + Profit + Fixed Overheads or, 40X=30X+4X+12,60,000 or, 6 X=12,60,000 x=12,60,000/6 =2,10,000 units

Sales value = 2,10,000 X 40 = ₹84,00,000

 (ii) BEP= Fixed Overheads/Contribution per unit or, 1,20,000 = 12,60,000/Contribution per unit or, Contribution per unit =12,60,000/1,20,000 = ₹10.50

Selling price per unit to bring BEP to 1,20,000 units= V.C per unit + Contribution per unit = 30+10.50 = ₹ 40.50

(iii)P/V ratio =Contribution/Sales X 100 = 10.50/40 X 100 = 26.25 %

Margin of Safety = Profit / P/V ratio = 60,000 /26.25% =₹ 2,28,571

| 1 | L ۱ |
|---|------------|
| l | D) |

| Particulars | M1(₹) | M2(₹) |
|---------------------------|-----------|-----------|
| | | |
| Estimated Profit | 16,00,000 | 10,00,000 |
| Add: Fixed Overhead | 24,00,000 | 10,00,000 |
| Estimated Contribution | 40,00,000 | 20,00,000 |
| Installed capacity (No of | | |
| units) | 1,00,000 | 1,00,000 |
| Contribution p.u | 40 | 20 |
| Selling Price p.u | 100 | 100 |

(i) BEP (units) =-Fixed cost/Contribution p.u M1=24,00,000/40 =60,000 units M2 =10,00,000/20 =50,000 units

(ii) Cost BEP(units) =24,00,000-10,00,000/40-20 =70,000 units

(iii)

| No of Units | Model to be Chosen |
|------------------------|--------------------|
| Less then 70,000 Units | M2 |
| =70,000 units | Any of the two |
| More than 70,000 | M1 |

The option having lower V.C per unit is a better option ,if the expected sales volume is more than the level of COST BREAK EVEN (i.e 70,000) & the proposal having lower fixed cost if would be better if the expected sales level is below the level of COST BREAK EVEN POINT.

7.(a) The details regarding the composition and the weekly wage rate of [8+7=15] labour force engaged on a job scheduled to be completed in 30 days are as follows:

| | | Standard | Actual k | | |
|-----------------------|-----------------|--------------------------------------|-----------------|-----------------------------------|--|
| Category of worker | No of worker | weekly wage Rate per Worker(₹) | No of worker | weekly wage Rate per Worker(₹) | |
| Skilled | 75 | 60 | 70 | 70 | |
| Semi- skilled | 45 | 40 | 30 | 50 | |
| Un skilled | 60 | 30 | 80 | 20 | |

The work is actually completed in 32 days

Calculate the following labour Variances;

- (i) Labour Cost Variance;
- (ii) Labour Rate Variance;
- (iii) Labour efficiency Variance;
- (iv) Labour Revised Efficiency Variance;
- (v) Labour Mix Variance.

| (b) | Draw up a flexible budget for overhead expenses on the basis of the following data and |
|------|--|
| dete | ermine the overhead rates at 70%,80% and 90% |

| Plant Capacity | At 80% capacity(₹) |
|----------------------------------|--------------------|
| Variable Overhead: | |
| Indirect labour | 18,000 |
| Stores including spares | 6,000 |
| Semi Variable: | |
| Power(30% Fixed: 70% Variable) | 30,000 |
| Repairs(60% Fixed: 40% Variable) | 3,000 |
| Fixed Overheads; | |
| Depreciation | 16,500 |
| Insurance | 4,500 |
| salaries | 15,000 |
| Total Overheads | 93,000 |
| Estimated Direct labour Hours | 2,48,000 |

Answer: 7(a)

Computation of Standard and Actual Time(in days)

| Category | Standard Time(ST) | Actual Time(AT) |
|--------------|-------------------|-----------------|
| Skilled | 75 X30=2,250 | 70 X 32 =2,240 |
| Semi Skilled | 45 X 30 =1,350 | 30 X 32 =960 |
| Un Skilled | 60 X 30=1,800 | 80 X 32=2,560 |

| | | Standard | | Actual | | | Revised |
|--------------|---------|----------|----------|----------|---------|----------|---------|
| Category of | | Rate | Cost | | Rate AR | Cost AC | Time |
| worker | Time ST | SR (₹) | SC(₹) | Time(AT) | (₹) | (₹) | RST |
| Skilled | 2,250 | 60 | 1,35,000 | 2,240 | 70 | 1,56,800 | 2,400 |
| Semi Skilled | 1,350 | 40 | 54,000 | 960 | 50 | 48,000 | 1,440 |
| Un Skilled | 1,800 | 30 | 54,000 | 2,560 | 20 | 51,200 | 1,920 |
| | | | 2,43,000 | 5,760 | | 2,56,000 | 5,760 |

Computation of standard Cost and Actual Cost

Computation of Revised Standard Time (RST)

 Skilled Worker
 :2,250/5,400 X 5,760 =2,400 hours

 Semi-Skilled worker
 :1,350/5,400 X 5,760 =1,440 hours

Unskilled Worker $(1,800/5,400 \times 5,760 = 1,920 \text{ hours})$

Computation of Variances

(i) Labour Cost Variance = TSC-TAC = 2,43,000 - 2,56,000 = 13,000(A)

| | | Semi Skilled | | |
|-----------------------|-------------------|-----------------|----------------------|-----------|
| Variance | Skilled Worker(₹) | Worker(₹) | Un Skilled Worker(₹) | Total |
| Labour Rate | 2,240(60-70) | 960(40-50) | 2,560(30-20) | |
| Variance=AT(SR-AR) | =22,400(A) | =9,600(A) | =25,600(F) | 6,400(F) |
| Labour Efficiency | 60(2,250-2,240) | 40(1,350-960) | 30(1,800-2560) | |
| Variance =SR(ST-AT) | =600(F) | =15,600(F) | =22,800(A) | 6,600(A) |
| Labour Revised | | | | |
| Efficiency Variance = | 60(2,250-2,400) | 40(1,350-1,440) | 30(1,800-1,920) | |
| SR(ST- RST) | =9,000 (A) | =3,600 (A) | =3,600(A) | 16,200(A) |
| Labour Mix Variance | 60(2,400-2,240) | 40(1,440 -90) | 30(1,920-2,560) | |
| = SR(RST-AT) | =9,600(F) | =19,200(F) | =19,200(A) | 9,600(F) |

(b) Flexible Budget at Different Capacities and Determination of Overhead Rates

| Particulars | 70%(₹) | 80%(₹) | 90%(₹) |
|-----------------------------|----------|----------|----------|
| | | | |
| Variable Overheads: | | | |
| Indirect Labour | 15,750 | 18,000 | 20,250 |
| Stores Including spares | 5,250 | 6,000 | 6,750 |
| Power(70%) | 18375 | 21,000 | 23,625 |
| Repairs(40%) | 1,050 | 1,200 | 1,350 |
| Total(A) | 40,425 | 46,200 | 51,975 |
| Fixed Overheads: | | | |
| Depreciation | 16,500 | 16,500 | 16,500 |
| Insurance | 4,500 | 4,500 | 4,500 |
| Salaries | 15,000 | 15,000 | 15,000 |
| Power(30%) | 9,000 | 9,000 | 9,000 |
| Repairs(60%) | 1,800 | 1,800 | 1,800 |
| Total (B) | 46,800 | 46,800 | 46,800 |
| Total Overhead(C)=(A+B) | 87,225 | 93,000 | 98,775 |
| Labour Hours(D) | 2,17,000 | 2,48,000 | 2,79,000 |
| Overhead rate per hour(C/D) | 0.404 | 0.375 | 0.354 |
| | | | |

8. Write short notes on any three of the following:

(a) Just-in-Time(JIT);

- (b) Differentiate between Operation Cost & Operating Cost;
- (c) Difference Between Job Evaluation and Merit Rating;
- (d) Responsibility Accounting.

Answer:8

(a)Just-in-Time: Just in time (JIT) is a production strategy that strives to improve a business return on investment by reducing in -process inventory and associated carrying costs. Inventory is seen as incurring costs, or waste, instead of adding and storing value, contrary to traditional accounting. In short, the Just-in-Time inventory system focuses on "the right material, at the right time, at the right place, and in the exact amount" without the safety net of inventory.

The advantages of Just -in-Time system are as follows:

• increased emphasis on supplier relationships. A company without inventory does not want a supply system problem that creates a part shortage. This makes supplier relationships extremely important.

• supplies come in at regular intervals throughout the production day. Supply is synchronized with production demand and the optimal amount of inventory is on hand at any time. When parts move directly from the truck to the point of assembly, the need for storage facilities is reduced.

•reduces the working capital requirements, as very little inventory is maintained.

•minimizes storage space.

•reduces the chance of inventory obsolescence or damage

(b) Operation Cost:

Operation cost is the cost of a specific operation involved in a production process or business activity. The cost unit in this method is the operation, instead of process. When the manufacturing method of a concern consists of a number of distinct operations, operating costing is suitable.

Operating Cost:

Operating cost is the cost incurred in conducting a business activity. It refers to the cost of concerns which do not manufacture any product but which provide services. Industries and establishments like power house, transport and travel agencies, hospitals, schools etc. which undertake services rather than the manufacture of products, ascertain operating costs. The cost units used are Kilo Watt Hour (KWH), Passenger Kilometre and Bed in the Hospital etc.

Operation costing method constitutes a distinct type of costing but it may also be classed as a variant of process cost since costs in this method are usually compiled for a specified period [5X3=15]

| Job Evaluation | Merit Rating |
|--|--|
| Job Evaluation is the assessment of relative worth of jobs in a business | Merit rating is the assessment of relative worth of the man behind the job. |
| Job Evaluation rated the jobs. | Merit rating rates the employees. |
| The objective of job evaluation is to set up a rational wage and salary structure. | Merit rating provides a scientific basis for determining fair wages for each worker based on his ability and performance |
| Job Evaluation simplifies wage administration by rationalizing and bringing uniformity in the wage rates | Merit rating helps in determining fair rate of pay to different workers on the basis of their relative performances. |

(c) Difference between Job Evaluation and Merit Rating

(d) Responsibility Accounting:

It is a system of accounting that recognizes various responsibility centres throughout the organization and reflects the plans and actions of each of these centres by assigning particular revenues and costs of the one having the pertinent responsibility.

It is a system in which the person holding the supervisory posts as president, function head, foreman, etc. are given a report showing the performance of the company or department or section as the case may be. The report will show the data relating to operational results of the area and the items of which he is responsible for control. Responsibility accounting follows the basic principles of any system of cost control and standard costing. It differs only in the sense that it lays emphasis on human beings and fixes responsibilities for individuals. It is based on the belief that control can be exercised by human beings, so responsibilities should be fixed for individuals.

Principles of Responsibility Accounting:

- (i) A target is fixed for each department or responsibility centre.
- (ii) Actual performance is compared with the target.
- (iii) The variances from plan are analysed so as to fix the responsibility.
- (iv) Corrective action is taken by higher management and is communicated.