## Paper8- CostAccounting

## Answer to MIP_Intermediate_Syl2016」 une2018_Set 1

## Cost Accounting

## Section- A

Answerthe following questions:
1.(a) Choose the comect answerfrom the given four altematives:
$[10 \times 1=10]$
(i) Batch Costing is suitable for-
A. Sugar Industry
B. Chemical Industry
C. Phama Industry
D. Oil Industry
(ii) Which of the following is considered as accounting record?
A. Bin Card
B. Bill of material
C. Store Ledger
D. None of these
(iii) Idle time is
A. Time spent by workers in factory
B. Time spent by workers in office
C. Time spent by workers off their work
D. Time spent by workers on their job
(iv) Time keeping refers to
A. Time spent by workers on their job
B. Time spent by workers in factory
C. Time spent by workers without work
D. Time spent by workers on their job
(v) Directors remuneration and expenses form a part of
A. Production overhead
B. Administration overhead
C. Selling overhead
D. Distribution overhead
(vi) In Reconc iliations Statements Expenses shown only in cost ac counts are.
A. Added to financial profit
B. Deducted from financial profit
C. Ignored
D. Deducted from costing profit

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(vii) The most suitable cost system where the products differ in type of material and work performed is
A. Operating Costing
B. J ob costing
C. Process costing
D. All of these.
(viii) Equivalent production of 1,000 units, $60 \%$ complete in all respects, is :
A. 1000 units
B. 1600 units
C. 600 units
D. 1060 units
(ix) Contribution is $₹ 300,000$ and sales is $₹ 1,500,000$. Compute $P / V$ ratio.
A. 15\%
B. 20\%
C. 22\%
D. 17.5\%
(x) Standard price of material per $\mathbf{k g}$ is ₹ 20 , standard usage per unit of production is $5 \mathbf{k g}$. Actual usage of production 100 units is 520 kgs , all of which was purchase at the rate of $₹$ 22 perkg. Material usage variance is
A. ₹ 400 (F)
B. ₹ 400 (A)
C. ₹ 1,040 (F)
D. ₹ 1,040 (A)
(b) Match the statement in Column I with the most appropriate statement in Column II: [1×5 =5]

| Column I |  | Column II |  |
| :--- | :--- | :--- | :--- |
| (i) | Royalties | (A) | Total sales less BEP sales |
| (ii) | Research and Development Cost | (B) | Direct allocation |
| (iii) | Donations | (C) | Appropriations only in financial accounts |
| (iv) | Job costing is used in | (D) | Automobile garages |
| (v) | Margin of Safety | (E) | CAS 18 |

(c) State whetherthe following statements are True' or 'False':
(i) In India, if a worker works for more than $\mathbf{8}$ hours on any day or for more than $\mathbf{4 0}$ hours in a week, he is treated to be engaged in overtime.
(ii) At breakeven point, contribution available is equal to total fixed cost.
(iii) Standards costing are more profitability employed in job order industries than in process type industries.
(iv) Generally, budgets are prepared to coincide with the financial year so that comparison of the actual performance with budgeted estimates would facilitate better interpretation and understanding.
(v) Weighted average method of pricing issue of materials involves adding all the different prices and dividing by the number of such prices.

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(d) Fill in the blanks suitably:
(i) Transfer of surplus material from one job or work order is rec orded in $\qquad$ .
(ii) In a company there were 1200 employee on the rolls at the beginning of a year and 1180 at the end. During the year 120 persons left senices and 96 replacements were made. The labour tumover to flux method is $\qquad$ \%.
(iii) The difference between practical capacity and the capacity based on sales expectancy is known as $\qquad$ _'
(iv) Under integrated accounting system, the accounting entry for payment of wages is to debit $\qquad$ and to credit cash.
(v) Standard means a criterion or a yardstick against which actual activity can be compared to determine the $\qquad$ between two.

Answer:
1.(a)
i.(C),
ii.(C)
iii.(C),
iv.(B),
v.(B),
vi.(B),
vii.(B),
viii.(C),
ix.(B),
$x$ (B).
1.(b)

$$
\begin{array}{lllll}
\text { i.(B), iii.(E) } & \text { iii.(C), } & \text { iv.(D), }
\end{array}
$$

1.(c)
i.(False),
ii.(True),
iii.(False),
iv.(True),
v.(False).
1.(d)
i. Material Tra nsfer Note,
ii. 9.08
iii. idle capacity,
iv. Wages control Accounts,
v. difference.

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## Section B

Answers any five Questions, working Notes should form part of the answer.
2. (a) From the following data for the year ended 31st Dec, 2017, calculate the inventory tumover ratio of the two items, and put fonward your comments on them.

|  | Material A <br> Amount (₹) | Material B <br> Amount (₹) |
| :--- | ---: | ---: |
| Opening stock on 1-1-2017 | 25,000 | 15,000 |
| Purc hase during the year 2017 | $\mathbf{7 2 , 0 0 0}$ | 57,000 |
| Closing on 31-12-2017 | 6,000 | 11,000 |

[7]
(b) A worker under the Halsey method of remuneration has a day rate of $₹ 12$ per week of 48 hours, plus a cost of living bonus of 10 p. per hour worked. He is given 8 hours task to perform, which he performs in 6 hours, he is allowed $30 \%$ of the time saved as premium bonus. What would be his eamings under Halsey Plan and Rowan Plan.

## Answer

(a) Material Inventory Tumover Ratio = (Cost of Material used/Average Stock)

For $A=[(25,000+72,000-6000)] /[(25,000+6,000) / 2]=5.87$
For $B=[(15,000+57,000-11000)] /[(15,000+11,000) / 2]=4.69$

Material Inventory tumover ratio indicates the efficiency of the management with which they are able to utilize their inventory. It indicates the existence or non-existence of non moving items, domant items, slow moving items etc. in inventory. If the ratio is high, the efficiency is said to be high and on the other hand if the ratio is low, the effic iency is said to be low.

In view of above, in the instant case, we may say that Material $A$ used better than Material B.
(b) Computation of eamings of worker under Halsey Plan:

Eamings under Halsey Plan $=$ Hours worked $\times$ Rate per hour $+(30 \% \times$ Time Saved $\times$ Rate per hour)

$$
\begin{array}{ll}
=(6 \times 0.25)+30 / 100(8-6) \times 0.25 & =1.65 \\
(+) \text { Cost of Living Bonus }(6 \times 0.1) & =0.60 \\
\text { Ea mings under Halsey Plan } & \equiv ₹ 2.25 \\
\hline
\end{array}
$$

## Computation of eamings of worker under Rowan Plan:

Ea mings under Rowan Plan =
Hours worked $\times$ Rate per hour $+[$ (Time saved $/$ Time allowed) $\times$ Hours worked $\times$ Rate per hour)]

$$
\begin{array}{ll}
=(6 \times 0.25)+(8-6 / 8) \times 6 \times 0.25 & =1.88 \\
(+) \text { Cost of Living Bonus }(6 \times 0.1) & =0.60 \\
& =₹ 2.48
\end{array}
$$

Ea mings under Halsey Plan =₹ 2.25
Eamings under Rowan Plan $=₹ 2.48$

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3. (a) The following information relates to the activities of a production department of factory fora certain period.

|  | Amount (₹) |
| :--- | :--- |
| Material used | 56,000 |
| Direct Wages | 40,000 |
| Labour hours | 12,000 |
| Hours of Machinery-operation | 20,000 |
| Overhead Chargeable to the Dept | 25,000 |

On one order camied out in the department during the period the relevant data were:-

| Material used (₹) | $\mathbf{6 , 0 0 0}$ |
| :--- | :---: |
| Direct Wages (₹) | $\mathbf{4 , 9 5 0}$ |
| Labour hours worked | $\mathbf{1 , 6 5 0}$ Hrs. |
| Machine Hours | $\mathbf{1 , 2 0 0}$ |

Calculate the overheads chargeable to the job by four commonly used methods.
(b) The following particulars relate to a processing machine treating a typical material. You are required to calc ulate the machine hour rate.

| The cost of the machine | ₹ $1,00,000$ |
| :---: | :---: |
| Estimated life | 10 years |
| Scrap value | ₹10,000 |
| Working time ( 50 weeks of 44 hrs. each) | 2,200 hrs. |
| Machine maintenance per annum | 200 hrs |
| Setting up time estimated @ $5 \%$ of total productive time |  |
| Electricity is $\mathbf{1 6}$ units per hour @ 10 paise per unit |  |
| Chemic als required weekly | ₹20 |
| Maintenance cost per year | ₹1,200 |

Two attendants control the operations of the machine together with 6 other machines, their combined weekly wages are ₹140. Departmental overhead allocated to this machine per annum ₹ $\mathbf{2 , 0 0 0}$.

## Answer: (a)

The four commonly used methods of absorbing or recovering overheads are as follows:

1. \% of overheads on material $=(25,000 / 56,000) \times 100=44.64 \%$
2. $\%$ of overheads on direct wages $=(25,000 / 40,000) \times 100=62.5 \%$
3. Overhead rate perlabour hour $=25,000 / 12,000=2.083$
4. Machine hour rate method $=25,000 / 20,000=1.25$

The overheadschargeable to job under the above methods is as follows:

1. Material $=6,000 \times 44.64 \%=2,678.4$
2. Wages $=4,950 \times 62.5 \%=3093.75$
3. Labour hour rate $=1650 \times 2.083=₹ 3,437$
4. Machine hour rate $=1,200 \times 1.25=₹ 1,500$

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(b)

| Annual Working hours: 50 weeks $\times 44$ hrs. | 2,200 |
| :--- | :--- |
| Less : Ma intenance time | $\underline{200}$ |
| Productive hours | 2,000 |
| Less: $5 \%$ Setting up time(5\% of 2000) | $\underline{100}$ |
| Effective hours | $\underline{1,900}$ |

Computation of Machine Hour Rate

4.(a) The following are the costing records for the year 2017 of a manufacturer:

Production 20,000 units; Cost of Raw Materials ₹ 2,00,000; Labour Cost ₹ 1,20,000; Factory Overheads ₹ 80,000; Office Overheads ₹ 40,000; Selling Expenses ₹10,000, Rate of Profit $\mathbf{2 5 \%}$ on the Selling Price.
The manufacturer decided to produce $\mathbf{2 5 , 0 0 0}$ units in 2017. It is estimated that the cost of raw matenials will increase by $\mathbf{2 0 \%}$, the labour cost will increase by $\mathbf{1 0 \%}, \mathbf{5 0} \%$ of the overhead charges are fixed and the other $50 \%$ are variable. The selling expenses per unit will be reduced by $20 \%$. The rate of profit will remain the same.
Prepare a Cost Statement for the year 2017 showing the total profit and selling price per unit
(b) A transistor manufacturer, who commenced his business on 1st J une, 2017 supplies you with the following information and asks you to prepare a statement showing the profit per transistor sold. Wages and materials are to be charged at actual cost, works overhead at $75 \%$ of wages and office overhead at $30 \%$ of works cost Number of transistors manufactured and sold during the year was 540 .

| Other partic ulars: |  |
| :--- | :--- |
| Materials perset | $₹ \mathbf{2 4 0}$ |
| Wages perset | $₹ \mathbf{8 0}$ |
| Selling price perset | $₹ \mathbf{6 0 0}$ |

If the actual works expenses were ₹ 32,160 and office expenses were ₹ 61,800 , prepare a Reconc iliation Statement

Answer: (a)
Statement of Cost (Cost Sheet)
(Output 20,000 units)

| Partic ulars | Cost per unit <br> (Amount in $₹$ ) | Total Cost <br> (Amount in $₹$ ) |
| :--- | :---: | :---: |
| Raw Materials | 10 | $2,00,000$ |
| Labour | 6 | $1,20,000$ |
| PRIME COST | 16 | $3,20,000$ |
| Add: Factory Overhead | 4 | 80,000 |
| WORKS COST | 20 | $4,00,000$ |
| Add: Office Overhead | 2 | 40,000 |
| COSTOF PRODUCTION | 22 | $4,40,000$ |
| Add: Selling Expenses | .5 | 10,000 |
| COSTOF SALES | 22.5 | $4,50,000$ |
| Add: Profit $(25 \%$ on Selling Price or $33.33 \%$ on <br> Cost of Sales) | 7.50 | $1,50,000$ |
| SELING PRICE | 30.00 | $6,00,000$ |

Statement of Cost (Cost Sheet)
(Output 25,000 units)

| Particulars | Cost per unit (Amount in ₹) | Total Cost (Amount in ₹) |
| :---: | :---: | :---: |
| Raw Materials (₹ $10 \times 120 \% \times 25,000$ ) | 12 | 3,00,000 |
| Labour ( $₹ 6 \times 110 \% \times 25,000$ ) | 6.6 | 1,65,000 |
| PRIME COST | 18.6 | 4,65,000 |
| Add: Factory Overhead (₹80,000 x 50\% + ₹ $2 \times 25,000$ ) | 3.6 | 90,000 |
| WORKS COST | 22.2 | 5,55,000 |
| Add: Office Overhead (₹40,000 x 50\% + ₹1 x 25,000) | 1.8 | 45,000 |
| COSTOF PRODUCTION | 24 | 6,00,000 |
| Add: Selling Expenses (₹. $5 \times 80 \% \times 25,000$ ) | 0.4 | 10,000 |
| COSTOF SALES | 24.4 | 6,10,000 |
| Add: Profit ( $25 \%$ on Selling Price or $33.33 \%$ on Cost of Sales) | 8.132 | 2,03,313 |
| SEШNG PRICE | 32.532 | 8,13,313 |

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## Answer: (b)

Cost Sheet (or) Statement of C ost and Profit

| Particulars | Unit <br> (Amount ₹) | Total <br> (Amount ₹) |
| :--- | ---: | :---: |
| Material | 240 | $1,29,600$ |
| Wages | 80 | 43,200 |
| Prime cost | 320 | $1,72,800$ |
| (+) Works overhead (75\% of wages) | 60 | 32,400 |
| Work Cost | 380 | $2,05,200$ |
| (+) Office overheads (30\% of work cost) | 114 | 61,560 |
| Total Cost | 494 | $2,66,760$ |
| (+) Profit | 106 | 57,240 |
| Sales | 600 | $3,24,000$ |

Dr.
Trading and Profit \& Loss Account
Cr.

| Partic ulars | Amount ₹ | Particulars | Amount <br> ₹ |
| :---: | :---: | :---: | :---: |
| To, Materials A/c | 1,29,600 | By, Sales A/c | 3,24,000 |
| To, Wages A/c | 43,200 |  |  |
| To, Works OverheadsA/c | 32,160 |  |  |
| To, Gross Profit | 1,19,040 |  |  |
|  | 3,24,000 |  | 3,24,000 |
| To, Office Expenses | 61,800 | By, Gross Profit b/d | 1,19,040 |
| To, Net Profit | 57,240 |  |  |
|  | 1,19,040 |  | 1,19,040 |

Statement of Reconciliation

| Partic ulars | Amount |
| :--- | ---: |
|  | $₹$ |
| Profit asper Fina ncial Accounts | 57,240 |
| $(-)$ Over rec overy of works overheads $(32,160-32,400)$ | $(240)$ |
| $(+)$ Under recovery of office expenses $(61,800-61,560)$ | 240 |
| Profit asper Cost Accounts | 57,240 |

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5. (a) A work order for 100 units of a commodity has to pass through four different machines of which the machine hour rates are:

Machine P-₹ 1.25, Machine Q - ₹ 2.50, Machine R-₹ 3 and Machine S-₹ 2.25
Following expenses have been incurred on the work order - Materials ₹ 8,000 and Wages₹ 500.

Machine - P has been engaged for 200 hours. Machine - Q for 160 hours, Machine - R for 240 hours and Machine - S for 132 hours.

After the work order has been completed, materials worth ₹ 400 are found to be surplus and are returned to stores.
Office overhead used to be $40 \%$ of works costs, but on account of all-round rise in the cost of administration, distribution and sale, there has been a $50 \%$ rise in the office overhead expenditure.

Moreover, it is known that $\mathbf{1 0 \%}$ of production will have to be scrapped as not being upto the specification and the sale proceeds of the scrapped output will be only $5 \%$ of the cost of sale.

If the manufacturer wants to make a profit of $\mathbf{2 0} \%$ on the total cost of the work order, find out the selling price of a unit of commodity ready for sale.
(b) A company of builders took to a multi-storied structure for ₹ $40,00,000$ estimating the cost to be $₹ 36,80,000$. At the end of the year, the company had received $₹ 14,40,000$ being $\mathbf{9 0} \%$ of the work certified; work done but not certified was ₹ 40,000 . Following expenditures were inc urred.

| Materials | $\mathbf{4 , 0 0 , 0 0 0}$ |
| :--- | ---: |
| Labour | $\mathbf{1 0 , 0 0 , 0 0 0}$ |
| Plant | $\mathbf{8 0 , 0 0 0}$ |

Materials costing ₹ $\mathbf{2 0 , 0 0 0}$ were damaged. Plant is considered as having depreciated at 25\%. Prepare Contract Account and show all the possible figures that can reasonably be credited to Profit and Loss Account

Answer (a)
Statement showing the selling price of a unit

| Partic ulars |  | Amount(₹) |
| :---: | :---: | :---: |
| Materials used (₹ 8,000-₹400) |  | 7,600 |
| Direct Wages |  | 500 |
| Prime Cost |  | 8,100 |
| Works Overhead at machine hour rate: |  |  |
| Machine - P For 200 hours @ ₹ 1.25 per hour <br> Machine - Q For 160 hours. @₹ 2.50 perhour <br> Machine - R For 240 hours. @₹ 3 perhour <br> Machine - SFor 132 hours. @₹ 2.25 per hour | $\begin{aligned} & 250 \\ & 400 \\ & 720 \\ & 297 \end{aligned}$ | 1,667 |
| Works Cost |  | 9,767 |


| Administration Overhead at 60\% of works cost |  | 5,860 |
| :--- | ---: | ---: |
|  |  | 15,627 |
| Less: Sale proc eeds of Scrap (5\% of 10\% of ₹ 15,627) |  | 78 |
| Total Cost of the work order |  | 15,549 |
| Profit at 20\% of total Cost |  | 3,110 |
| Selling Price of 100 units |  | 18,659 |
| Selling Price of a unit |  | 186.59 |

Note: It was known before that $10 \%$ of production will have to be scrapped, therefore, inputs must have been made taking this factor into consideration. No other adjustment is necessary except deducting the value of scrap from the cost of production.

## Answer (b)

Dr.
Contract Account

| Particulars | Amount(₹) | Particulars |  | Amount(F) |
| :---: | :---: | :---: | :---: | :---: |
| To, Material | 4,00,000 | By, Costing P \& LA/C |  | 20,000 |
| To, Labour | 10,00,000 | By, W.I.P A/C |  |  |
| To, Depreciation | 20,000 | Work certified | 16,00,000* |  |
| To, Notional Profit | 2,40,000 | Work uncertified | 40,000 | 16,40,000 |
|  | 16,60,000 |  |  | 16,60,000 |

* (14,40,000/90)× 100=16,00,000
(i) $3,20,000 \times(1,420 / 3,680)=1,23,478$
(ii) $3,20,000 \times(1,420 / 3,680) \times 90 / 100$
=1,11,130
(iii) $3,20,000 \times 16 / 40$
=1,28,000
(iv) $3,20,000 \times(16 / 40) \times(90 / 100)$
$=1,15,200$

6. (a) From the following information prepare process account

| Opening stock |  | Degree of completion |
| :--- | ---: | ---: |
| 800 Units @₹7 per unit | $₹ 5,600$ | Material I-100\% <br> Material II - 60\% <br> Labourand Overheads 40\%. |
| Transfer from Process NO - I <br> 12,000 units costing <br> Transfer to next process | $₹ 16,350$ <br> 9,700 <br> units |  |
| Normal process loss | 1,800 units |  |
| Closing stock |  |  |

Degree of Completion: For units scrapped:- Material 100\% Labour and Overheads 50\%. For closing stock: Material 60\%; Labour and overheads 50\%
Scrap realized Rs. 1.00 per unit
Other information: Material ₹10,500; Labour₹ 20,760; Overheads ₹16,670

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(b) In the course of manufacture of the main product ' $P$ ' by products ' $A$ ' and ' $B$ ' also emerge. The joint expenses of manufacture amount to $₹ \mathbf{1 , 1 9 , 5 5 0}$. All the three products are processed further afterseparation and sold as per details given below:

|  | Main product | By products |  |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{P}$ | $\mathbf{A}$ | $\mathbf{B}$ |
| Sales | $\mathbf{9 0 , 0 0 0}$ | 60,000 | $\mathbf{4 0 , 0 0 0}$ |
| Cost inc urred afterseparation | 6,000 | 5,000 | 4,000 |
| Profit as percentage on sales | 25 | $\mathbf{2 0}$ | $\mathbf{1 5}$ |

Total fixed selling expenses are $10 \%$ of total cost of sales which are apportioned to the three products in the ratio of 20: 40: 40.
(i) Prepare a statement showing the apportionment of joint costs to the main product and the two by products.
(ii) If the by-product $A$ is not subjected to further processing and is sold the point of separation for which there is a market, at ₹ 58,500 without incuring any selling expenses. Would you advise its disposal at this stage. Show the workings.

## Answer (a)

Statement of Equivalent Production

| Input | Output | Units | Material-I |  | Ma terial |  | Labour |  |  | Overheads |
| :---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  | $\%$ | Units | $\%$ | Units | $\%$ | Units | $\%$ | Units |
| 800 | Opening Stock | 800 | - | - | 40 | 320 | 60 | 480 | 60 | 480 |
| 12000 | Normal Loss |  |  |  |  |  |  |  |  |  |
|  | (800+12000-1800) $\times 10 \%$ | 1100 | - | - | - | - | - | - | - | - |
|  | Finished Units (9700-800) | 8900 | 100 | 8900 | 100 | 8900 | 100 | 8900 | 100 | 8900 |
|  | Closing Stock | 1800 | 100 | 1800 | 60 | 1080 | 50 | 900 | 50 | 900 |
|  |  | 12600 |  | 10700 |  | 10300 |  | 10280 |  | 10280 |
|  | Add: Abnormal Loss | 200 |  | 200 | 100 | 200 | 50 | 100 | 50 | 100 |
| 12800 |  | 12800 |  | 10900 |  | 10500 |  | 10380 |  | 10380 |

Statement of Cost per unit

| Particulars | Cost (₹) | Equivalent Cost (₹) | Cost per unit (₹) |
| :--- | ---: | ---: | ---: |
| Material-I | 16350 | 10900 | 1.5 |
| Material-II | 10500 | 10500 | 1.0 |
| Labour | 20760 | 10380 | 2.0 |
| Overhead $(16,670-1,100)$ | 15570 | 10380 | 1.5 |

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| Value of Abnomal Loss |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Element |  | Units | Cost per unit ( F ) | Total Cost (₹) |  |
| Material-I |  | 200 | 1.5 | 300 |  |
| Material-II |  | 200 | 1.0 | 200 |  |
| Labour |  | 100 | 2.0 | 200 |  |
| Overhead |  | 100 | 1.5 | 150 |  |
|  |  |  |  | 850 |  |
|  |  | alue of Clo | losing Stock |  |  |
| Element |  | Units | Cost per unit (₹) | Total Cost (₹) |  |
| Material-I |  | 1800 | 0 1.5 | 2,700 |  |
| Material-II |  | 1080 | 0 | 1,080 |  |
| Labour |  | 900 | O 2.0 | 1,800 |  |
| Overhead |  | 900 | $0 \quad 1.5$ | 1,350 |  |
|  |  |  |  | 6,930 |  |
| Dr. |  | Proce | ess Account |  | Cr. |
| Partic ulars | Units | ₹ | Particula | rs $\quad$ Units | $₹$ |
| To, Opening Stock A/c | 800 | 5,600 | By, Normal Loss A/C | 1100 | 1,100 |
| To, Transfer from Process-l A/c | 12000 | 16,350 | By, Closing Stock A | /C 1800 | 6,930 |
| To, Material A/c |  | 10,500 | By, Abnormal Loss | A/C 200 | 850 |
| To, Labour A/C |  | 20,760 | By, Transfer to Next @ ₹ 6.206 per unit | Process A/c 9700 | 61,000 |
| To, Overheads A/c |  | 16,670 |  |  |  |
|  | 12800 | 69,880 |  | 12800 | 69,880 |

## Answer (b)

(i) Statement showing computation of share of joint expenses:

|  | Particulars | Main <br> Product P | By Product <br> A | By Product <br> B | Total <br> Amount |
| :--- | :--- | ---: | :---: | :---: | :---: |
|  |  | $₹$ | $₹$ | $₹$ | $₹$ |
| (i) | Sales | 90,000 | 60,000 | 40,000 | $1,90,000$ |
| (ii) | Profit | 22,500 | 12,000 | 6,000 | 40,500 |
| (iii) | Cost of sales (I - III) | 67,500 | 48,000 | 34,000 | $1,49,500$ |
| (iv) | Selling expenses | 2,990 | 5,980 | 5,980 | 14,950 |
| (v) | Manufacturing cost (III - IV) | 64,510 | 42,020 | 28,020 | $1,34,550$ |
| (vi) | Separate costs | 6,000 | 5,000 | 4,000 | 15,000 |
| (vii) | Share of joint expenses (V - VI) | 58,510 | 37,020 | 24,020 | $1,19,550$ |


|  |  | $₹$ |
| :--- | :--- | :--- |
| Sales at split off (A) | $=$ | 58,500 |
| $(-)$ J oint Cost (A) | $=$ | $\underline{37,020}$ |
|  | $=\underline{21,480}$ |  |

(ii) It is better to sell By-Product ' A ' at split off point because it gives more profit ₹ 21,480 aga inst profit after processing ₹ 12,000 .

## Answer to MTP_Intermediate_Syl2016」 une2018_Set 1

7. (a) ABC Ltd. fumishes you the following information relating to the half year ended 30th J une, 2017.

| Fixed expenses | $₹ \mathbf{4 5 , 0 0 0}$ |
| :--- | :--- |
| Sales value | $₹ 1,50,000$ |
| Profit | $₹ \mathbf{3 0 , 0 0 0}$ |

During the sec ond half the year the company has projected a loss of $₹ \mathbf{1 0 , 0 0 0}$.

## Calculate:

(1) The B.E.P and M/ S for six months ending 30th J une, 2017.
(2) Expected sales volume for the second half of the year assuming that the P/V Ratio and Fixed expenses remain constant in the second half year also.
(3) The B.EP and M/S for the whole year for 2017.
(b) The standard set for material consumption was 100kg. @₹ 2.25 per kg.

In a cost period:
Opening stock was 100 kg. @₹ 2.25 per kg.
Purchases made 500 kg. @₹ 2.15 per kg.
Consumption 110 kg.
Calculate: a) Usage b) Price variance

1) When variance is calc ulated at point of purc hase
2) When variance is calc ulated at point of issue on RFO basis
3) When variance is calc ulated at point of issue on UFO basis
```
Answer (a)
(1) P/V ratio \(=(\) Fixed cost + Profit \() /\) Sales
P/V ratio: \(=[(45,000+30,000) / 1,50,000] \times 100=50 \%\)
BE sales for \(I\) half year \(=45,000 / 50 \%=₹ 90,000\)
Margin of safety for \(I\) half year \(=1,50,000-90,000=₹ 60,000\)
Forll half year.
(2) P/V ratio \(=\) (Fixed cost + Profit) \(/\) Sales
\(0.5=[45,000+(-) 10,000] /\) Sales
0.5 sales \(=35,000\)
\(\Rightarrow\) Sales =₹ 70,000
(3) BE sales for \(2017=(45,000+45,000) \times 50 \%\)
\[
=1,80,000
\]
Margin of sa fety for \(2017=(1,50,000+70,000)-1,80,000\)
\[
=₹ 40,000
\]
```


## Answer (b)

a) Computation of Material Usage Variance

Material Usage Variance $=$ SQSP - AQ SP
$=S P(S Q-A Q)$
$=2.25(100-110)$
$=22.50(\mathrm{~A})$
b) Computation of Price variance:

1) When Variance is calc ulated at the point of purchase:

Price variance $=A Q S P-A Q A P$
$=(110 \times 2.25)-(110 \times 2.15)$
$=11$ (F)
2) When variance is calc ulated at the point of issue on RFO basis

Price variance $=A Q S P-A Q A P$
$=(110 \times 2.25)-([100 \times 2.25]+[10 \times 2.15])$
$=1$ (F)
3) When variance is calc ulated at the point of issue on UFO basis

Price variance $=A Q S P-A Q A P$
$=(110 \times 2.25)-(110 \times 2.15)$
$=247.50-236.50$
$=11(\mathrm{~F})$
8. Write short notes on any three of the following:
[ $5 \times 3=15]$
(a) Conversion Cost
(b) Periodical Stock Verification
(c) Accounting treatment of scrap
(d) Performance Budgeting.

## Answer (a) Conversion Cost

This term is defined as the sum of direct wages, direct expenses and overhead costs of converting raw material to the finished products or converting a material from one stage of production to another stage. In other words, it means the total cost of producing an article less the cost of direct materials used. The cost of indirect materials and consumable stores are included in such cost. The compilation of conversion cost is useful in a number of cases. Where cost of direct materials is of fluctuating nature, conversion cost is used to cost control pupose or for any other decision making. In contracts/jobs where raw materials are on account of the buyers conversion cost takes the place of total cost in the books of the producer. Periodic comparison/review of the conversion cost may give suffic ient insight as to the level of effic iency with which the production unit is operating.

## (b) Periodical Stock Verification

This system envisages physical stock verification at a fixed date/period during the year. Generally under this system the activity takesplace at the end of the accounting period or a date close to such date. Usually the system is opened in the following manner :-
(i) A period of $5 / 7$ days, depending on the magnitude of the work is chosen during which all the items under stock are verified physically and such period is known as 'cut-off' period. During this period there are no movements of stock items and neither 'receipts' nor a re 'issues permitted.
(ii) The items are physic ally counted/measured depending on their nature a nd are noted down in records which are signed by the auditors if they are present in stock verification.
(iii) The bin cards balances are also checked and initiated. Generally the physical balances and bin card balances of various items should be same unless shortage/excesses are there orthe recording/ balancing in the cardsare incorrect.
(iv) After the physical verification is completed work sheets are countersigned by the godown supervisors and the stock verified.
(v) Thereafter reconciliation statement is prepared item wise where the physical balances and bin card balancesare different.
(vi) Then the balance as per bin cards and as per stores ledger is also compared and necessary adjustments a re made to show the correct position of stock at the yearend.
(vii) Finally the shortages/excess statement is prepared by the concemed departments and are placed before the higher management for their a pproval for adjustments.
(c) Acc ounting treatment of scrap

## (i) Sales Credited to Revenue:

In this method, the scrap is not cost and its value does not, therefore, appear separately in the Cost Accounts. Only a quantitative record of the scrap retumed to storeroom from the shops is maintained and the sale value realised from time to time is credited to the Profit and Loss Account asmisc ellaneous revenue.

## (ii) Credit to Overhead:

In this method and in the following method the scrap is assigned a cost. The cost is usually the sale value of the scrap less selling and distribution costs. If the scrap has no ready market but has only utility or use value, and is ta ken as a credit to manufacturing overhead. The effect of this credit is to reduce the overhead recovery rate. When predetermined overhead rates are in use, it is more expedient to credit an estimated allowance for the scrap instead of the a mount of actual scrap.

## (iii) Credit to Jobs:

The scrap is assigned a cost and is traced to the job which yielded the scrap. This affords a reasonable amount of credit to the jobs and widely different.

## (iv) Transfer to Other J obs:

Scrap arising in one job may be issued for utilization in a nother job. Such transfers of scrap from one job to another should be affected through Material Transfer Notes. Altematively, scrap may be retumed to store room and subsequently issued to a nother job for utilization. The latter method is more appropriate when some further processing is required on the scrap before it can be utilized for other jobs.
(d) Performance Budgeting.

Performance Budgeting is synonymous with Responsibility Accounting which means thus the responsibility of various levels of management is predetermined in terms of output or result keeping in view the authority vested with them. The main concepts of such a system are enumerated below:
(i) It is based on a classification of managerial level for the purpose of establishing a budget for each level. The individual in charge of that level should be made responsible and held accountable for its performance over a given period of time.
(ii) The starting point of the performance budgeting system rests with the organisation chart in which the spheres of jurisdiction have been determined. Authority leads to the responsibility for certa in costs and expenses which a re forecast or present in the budget with the knowledge of the managerconcemed.
(iii) The costs in each individual's or department's budget should be limited to the cost controllable by him.
(iv) The person concemed should have the authority to bear the responsibility.

