# G. S. College of Commerce \& Economics, Nagpur 

An Autonomous Institution
(Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)
Second Semester Master of Business Administration Examination (CBCS)
COST \& MANAGEMENT ACCOUNTING
(MBC 2.2)
Time: 3 Hours
Maximum Marks: 80
Note: a) All Questions are compulsory.
b) Draw well labeled diagrams wherever necessary.
Q. 1 A) In respect of a factory the following particulars have been extracted for the year 2018:

| Particulars | $₹$ |
| :--- | ---: |
| Cost of material | $6,00,000$ |
| Wages | $5,00,000$ |
| Factory overheads | $3,00,000$ |
| Administration charges | $3,36,000$ |
| Selling charges | $2,24,000$ |
| Distribution charges | $1,40,000$ |
| Profit | $4,20,000$ |

A work order has been executed in 2019 and the estimated expenses are:
Material ₹ 8,000 , wages ₹ 5,000 .
Assuming that in 2019, the rate of factory overheads has gone up by $20 \%$, distribution charges have gone down by $10 \%$ and selling and administration charges each have gone up by $15 \%$, at what price should the product be sold so as to earn the same rate of profit on the selling price as in 2018?
Factory overheads are based on wages and administration, selling and distribution overheads on factory cost.

OR
B) $\mathrm{M} / \mathrm{s}$ Birla Trader have furnished the following information from financial books for the year ended $31^{\text {st }}$ March 2018.

Trading and Profit and Loss Account
For the year ended 31 ${ }^{\text {st }}$ March 2014

| Particulars | $₹$ | Particulars | $₹$ |
| :--- | ---: | :--- | ---: |
| To Opening Stock | 17,500 | By Sales (10250 units) | $7,17,500$ |
| (500 units @ ₹ 35 each) |  | By Closing Stock | 12,500 |
| To Material Consumed | $2,60,000$ | (250 units @ ₹ 50 each) |  |
| To Wages | $1,50,000$ |  |  |
| To Gross Profit c/d | $3,02,500$ |  | $7,30,000$ |
|  | $7,30,000$ |  | $3,02,500$ |
| To Factory Overheads | 94,700 | By Gross Profit b/d | 250 |
| To Office Overheads | $1,06,000$ | By Interest | 10,000 |


| To Bad Debts | 4,000 |  |  |
| :--- | ---: | ---: | ---: |
| To Goodwill written off | 5,000 |  |  |
| To Net Profit | 48,050 |  | $3,12,750$ |
|  | $3,12,750$ |  |  |

The Cost Sheet shows the following:
(a) Cost of materials at ₹ 26 per unit and labour cost ₹ 15 per unit produced.
(b) Factory overheads are absorbed at $60 \%$ of labour cost.
(c) Office overheads are absorbed at $20 \%$ of factory cost.
(d) Selling expenses are charged at ₹ 6 per unit.
(e) Opening stock of finished goods is valued at ₹ 45 per unit and closing stock as in financial books.
You are required to prepare:
(i) A statement showing cost and profit as per cost accounts for the year ended $31^{\text {st }}$ March 2018, and
(ii) Statement showing the reconciliation of profit disclosed in cost accounts with the profits shown in financial accounts.
Q. 2 A) A company makes and sells a single product. At the beginning of period 1, there is no opening stock of the product, for which the variable production cost is ₹ 4 and the sale price is ₹ 6 per unit. Fixed cost are ₹ 2,000 per period of which ₹ 1,500 are fixed production cost.
The following details are available:

|  |  |  | Period 13 | Period 2 |
| :--- | :--- | :--- | :--- | :--- |
| Sales <br> Production |  | 1200 units | 1800 units |  |

What would be the profit in each period using:
(a) Absorption costing (Assume normal output is 1500 units per period); and
(b) Marginal costing?

OR
B) ABC Ltd. produces a variety of products each having a number of component part. Product B takes 5 hours to produce on a particular machine which is working at full capacity. B has a selling price of ₹ 100 and variable cost of ₹ 60 per unit. A component part X-100 could be made on the same machine in two hours at a variable cost of ₹ 10 per unit. The suppliers price for the component is ₹ 25 per unit.
Required - Advise whether the company should buy the component X - 100 .
Q. 3 A) A company has annual fixed cost of ₹ $1,68,00,000$. In the year 2016-17, sales amounted to ₹ $6,00,00,000$ as compared with ₹ $4,50,00,000$ in the preceding year 2015-16. The profit in the year 2016-17 is ₹ $42,00,000$ more than that in 2015-16. On the basis of the above information, answer the following:
(i) What is the break-even level of sales of the company?
(ii) Determine profit/loss on the forecast of a sales volume of ₹ $80,00,00,000$.
(iii)If there is a reduction in selling price by $10 \%$ in the financial year 2017-18 and company desires to earn the same amount of profit as in 2016-17, what would be the required sales volume?

OR
B) Merry Manufactures Ltd., has supplied you the following information in respect of one of its products:
Total fixed costs
₹ 18,000
Total variable cost
₹ 30,000
Total sales
₹ 60,000
Units sold
20,000 units
Find out:
(a) Contribution per unit;
(b) Break - even point;
(c) Margin of safety;
(d) Profit; and
(e) Volume of sales to earn a profit of ₹ 24,000 .
Q. 4 A) Following information is available from the records of Jay Ltd. for the year ended $31^{\text {st }}$ March 2018.

|  | ₹ (lakhs) |
| :---: | :---: |
| Fixed Expense :- <br> Wages and salaries <br> Rent, rates and taxes <br> Depreciation <br> Sundry administrative expense |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Semi-variable expenses (at 50\% of capacity) |  |
| Maintenance and repairs | . 5 |
| Indirect labour | 7.9 |
| Sales and department salaries | 3.8 |
| Sundry administrative expenses | 2.8 |
| Variable expenses |  |
| (at 50\% of capacity) |  |
| Materials | 21.7 |
| Labour | 20.4 |
| Other expenses | 7.9 |
|  | 98.0 |

Assuming that the fixed expenses remain constant for all levels of production, semi variable expenses remain constant between $45 \%$ and $65 \%$ of capacity, increasing by $10 \%$ between $65 \%$ and $80 \%$ and by $20 \%$ between $80 \%$ and $100 \%$.
Sales at various levels are:

|  | $₹$ (Lakhs) |
| :--- | ---: |
| $50 \%$ capacity | 100 |
| $60 \%$ capacity | 120 |


| $75 \%$ capacity | 150 |
| :--- | :--- |
| $90 \%$ capacity | 180 |
| $100 \%$ capacity | 200 |

Prepare a flexible budget for the year and forecast the profits at $60 \%, 75 \%, 90 \%$ and $100 \%$ of capacity.

## OR

B) Summarized below are the Income and Expenditure for the months of March to August 2018.

| Months | Sales <br> (All Credit) | Purchases <br> (All credit) | Wages | Manufacturing <br> expenses | Office <br> expenses | Selling <br> expenses |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| March | 60,000 | 36,000 | 9,000 | 4,000 | 2,000 | 4,000 |
| April | 62,000 | 38,000 | 8,000 | 3,000 | 1,500 | 5,000 |
| May | 58,000 | 33,000 | 10,000 | 4,000 | 2,500 | 4,500 |
| June | 58,000 | 35,000 | 8,500 | 3,000 | 2,000 | 3,500 |
| July | 56,000 | 39,000 | 9,000 | 4,000 | 1,000 | 4,500 |
| August | 60,000 | 34,000 | 8,000 | 3,000 | 1,500 | 4,500 |

You are given the following further information:
(a) Plant costing ₹ 16,000 is due for delivery in July, payable $10 \%$ on delivery and the balance after three months.
(b) Advance tax of ₹ 8,000 each is payable in March and June.
(c) Period of credit allowed by supplier is 02 months and allowed to customers 01 month.
(d) Lag in payment of all expenses except wages is one month.

You are required to prepare a cash budget for 3 months starting on $1^{\text {st }}$ May 2018 when there was a cash balance of $₹ 8,000$.
Q. 5 A) From the following prepare variance analysis of a particular department for a month.

Variable overhead items: (actual)

|  | ₹ |
| :--- | ---: |
| Materials handling | 8,325 |
| Idle time | 850 |
| Re-work | 825 |
| Overtime premium | 250 |
| Supplies |  |
|  |  |

Fixed overhead items: (actual)

|  | ₹ |
| :--- | ---: |
| Supervision | 1,700 |
| Depreciation - Plant | 2,000 |
| Depreciation - Equipment | 5,000 |
| Rates | 1,150 |
| Insurance | 350 |
|  | 10,200 |

Normal capacity 10,000 standard hours, budgeted rate ₹ 1.70 per standard hour for variable overhead and ₹ 1 per standard hour for fixed overhead. Actual level 8,000 standard hours.

OR
B) The standard material input required for 1000 kgs of a finished products are given below

| Material | Quantity (Kg) | Standard rate per kg $(₹)$ |
| :---: | ---: | :---: |
| P | 450 | 20 |
| Q | 400 | 40 |
| R | 250 | 60 |
|  | 1100 |  |
|  | 100 |  |
| Standard output | 1000 |  |
|  |  |  |

Actual production in a period was $20,000 \mathrm{~kg}$ of finished product for which the actual quantities of material used and the prices paid therefore were as under

| Material | Quantity $(\mathrm{Kg})$ | Purchase price per kg (₹) |
| :---: | ---: | :---: |
| P | $-10,000$ | 19 |
| Q | 8,500 | 42 |
| R | 4,500 | 65 |

Calculate:
(i) Material Cost Variance;
(ii) Material Price Variance;
(iii) Material Usage Variance;
(iv) Material Mix Variance;
(v) Material Yield Variance.
Q. 6 A) Explain Responsibility Accounting. What are the various approaches to responsibility accounting?
B) Explain the concept and importance of transfer pricing.
Q. 7 Write short notes on: (any five)
A) Explain the limitations of Cost Accounting.
B) Give short note on application of Marginal Costing.
C) Explain the concept of Cost - Volume Profit analysis.
D) Write a short note on Zero Base Budget.
E) What do you understand by Standard Cost?
F) Write a note on Life Cycle Costing.

