

**COST ACCOUNTING****CHAPTER 1: COST SHEET****SIMPLE COST SHEET**

**Q.1.** From the following particulars extracted from the costing records of a Mfg. Co., You are required to prepare a cost statement showing in detail the elements of total cost:

| Particulars                 | Rs.    | Particulars       | Rs.   |
|-----------------------------|--------|-------------------|-------|
| Materials (Direct) consumed | 15,093 | Advertising       | 1,129 |
| Direct Wages                | 7,220  | Machinery Repairs | 274   |
| Direct Expenses             | 1,420  | Staff Salaries    | 1,746 |
| Factory Expenses            | 1,172  | Carriage on sales | 673   |
| Office Expenses             | 995    | Foremen's wages   | 956   |
| Directors' fees             | 500    |                   |       |

Also ascertain the net profit if the total sales is Rs.40,000 and cost per unit if units manufactured and sold are 1,000.

**Q.2.** The following is the extract of the costing information for the year ended 31/3/2005:

| Particulars                                    | Rupees   |
|------------------------------------------------|----------|
| Sales                                          | 1,96,000 |
| Purchase - raw materials                       | 60,000   |
| Direct Wages                                   | 60,000   |
| Rent, rates, insurance and other works on cost | 21,000   |
| Carriage inward                                | 1,000    |
| <u>Opening Stock:</u>                          |          |
| Raw materials                                  | 10,000   |
| Finished Goods (200 tons)                      | 12,000   |
| <u>Closing Stock:</u>                          |          |
| Raw materials                                  | 11,000   |
| Finished Goods (400 tons)                      | ?        |
| Supervision (factory charges)                  | 3,000    |
| Advertising                                    | 4,000    |
| Office overheads                               | 30,000   |
| Selling expenses                               | 6,000    |
| Carriage Outward                               | 2,000    |

3,000 tons of the commodities were produced. Prepare a detailed cost statement showing:

a) Cost of the output - total as well as per unit. b) Net profit for the year.

**Q.3.** A, B & C are partners sharing profits & losses equally. A is a sleeping partner. B looks after the factory & C looks after the administration. The following figures are extracted from their books for the year ended 30th June 2007

|                                                        |          |
|--------------------------------------------------------|----------|
| Raw materials purchased                                | 50,000   |
| Wages Direct                                           | 30,000   |
| Wages Indirect                                         | 5,000    |
| office salaries                                        | 10,000   |
| Carriage inward                                        | 1,000    |
| Carriage outward                                       | 3,000    |
| Sales                                                  | 2,00,000 |
| <u>Opening Stock:</u> Raw material                     | 20,000   |
| Finished goods                                         | 5,000    |
| Traveling expenses                                     | 1,000    |
| Advertising                                            | 3,000    |
| Power                                                  | 1,000    |
| Agents commission                                      | 5,000    |
| Plant maintenance                                      | 4,000    |
| Rent, rates & Taxes (9/10 for works & 1/10 for office) | 1,000    |
| <u>Sundry expenses:</u> Works                          | 1,000    |
| Office                                                 | 2,000    |
| Building repairs                                       | 1,000    |
| <u>Salary to partners:</u> B                           | 2,000    |
| C                                                      | 1,000    |
| <u>Depreciation:</u> Plant & Machinery                 | 2,000    |
| Building                                               | 1,000    |
| <u>Closing Stock:</u> Raw materials                    | 20,000   |
| Finished Goods                                         | 3,000    |

Building is occupied 9/10 by factory & 1/10 by office. You are required to prepare a detailed cost statement assuming 10,000 units were produced during the year.

**Q.4.** The accounts of X Mfg Co. for the year ended March 2005 shows the following:

| Particulars                                 | Rupees   | Particulars                                     | Rupees   |
|---------------------------------------------|----------|-------------------------------------------------|----------|
| Drawing office salaries                     | 6,500    | Materials purchased                             | 1,85,000 |
| Counting house salaries                     | 12,600   | Travelling expenses                             | 2,100    |
| Carriage outwards                           | 4,300    | Travelers salaries &                            |          |
| Carriage on purchases                       | 7,150    | Commission                                      | 7,700    |
| Bad debts written off                       | 6,500    | Productive wages                                | 1,26,000 |
| Repairs of plant, machinery & Tools         | 4,450    | <u>Depreciation:</u> -                          |          |
| <u>Rent, rates, taxes &amp; insurance:-</u> |          | Plant, Machinery & Tools                        | 6,500    |
| Factory                                     | 8,500    | Furniture                                       | 300      |
| Office                                      | 2,000    | Directors fees                                  | 6,500    |
| Sales                                       | 4,61,100 | <u>Gas &amp; Water:-</u>                        |          |
| Stock of materials: 31/3/04                 | 62,300   | Factory                                         | 1,200    |
| 31/3/05                                     | 48,000   | Office                                          | 400      |
| Loss on sale of plant                       | 300      | Managers salary                                 |          |
| Income tax paid                             | 2,000    | ( $\frac{3}{4}$ Factory & $\frac{1}{4}$ Office) | 10,000   |
|                                             |          | General expenses                                | 3,400    |

Prepare a statement showing the following information:

- a) Materials consumed      b) Prime cost      c) Factory cost      d) Total cost  
 e) Net profit      f) General overhead as a % of factory cost  
 g) Factory overhead as a % on wages

**Q.5.** From the following particulars of a manufacturing firm prepare a statement showing:

- (a) Cost of materials used      (b) Works cost      (c) Cost of production  
 (d) % of works overhead to productive wages      (e) % of general overhead to works cost.

| Particulars                             | Rs.       | Particulars                          | Rs.       |
|-----------------------------------------|-----------|--------------------------------------|-----------|
| Stock of materials on 1/6/2005          | 40,000    | Finished goods sold                  | 24,00,000 |
| Purchases of Raw materials in June 2005 | 11,00,000 | Works overhead charges               | 1,50,000  |
| Stock of Finished goods on 1/6/2005     | 50,000    | Office & General expenses            | 1,00,000  |
| Productive wages                        | 5,00,000  | Stock of material on 30/6/2005       | 1,40,000  |
|                                         |           | Stock of finished goods on 30/6/2005 | 60,000    |

**Q.6.** Mr. Raj furnishes the following data relating to the manufacture of X standard product during the month of April 1998.

|                          |                         |
|--------------------------|-------------------------|
| Raw material consumed    | Rs. 15,000              |
| Direct labour charges    | Rs. 9,000               |
| Machine hours worked     | 900 Hours               |
| Machine hour rate        | Rs. 5                   |
| Administrative overheads | 20% on Works Cost       |
| Selling overheads        | Re. 0.50 per unit       |
| Units produced           | 17,100                  |
| Units sold               | 16,000 @ Re. 4 per unit |

You are required to prepare a cost sheet from the above showing:

- (a) The cost per unit      (b) Profit per unit sold & profit for the period

**Q.7.** Prepare a cost sheet for the year ended 31/3/05:

| On 1/4/2004:                    |          | On 31/3/2005:            |          |
|---------------------------------|----------|--------------------------|----------|
| Stock of finished goods         | 6,000    | Stock of finished goods  | 15,000   |
| Stock of Raw materials          | 40,000   | Stock of raw materials   | 50,000   |
| Work-in-progress                | 15,000   | Work in progress         | 10,000   |
| Purchase of raw materials       | 4,75,000 | Sales for the year       | 8,60,000 |
| Carriage inward                 | 12,500   | Income tax               | 500      |
| Wages                           | 1,75,000 | Dividend                 | 1,000    |
| Works Managers Salary           | 30,000   | Debenture interest       | 5,000    |
| Factory Employees Salary        | 60,000   | Transfer to sinking fund |          |
| Factory rent, taxes & insurance | 7,250    | Replacement of Machinery | 10,000   |
| Power expenses                  | 9,500    | Payment of sales tax     | 16,000   |
| Advance income tax paid         | 3,000    | General Expenses         | 32,500   |
| Other production expenses       | 43,000   |                          |          |

**Q.8.** From the accounts of Allied Co. Ltd following Manufacturing, Trading and profit & loss account for the year ended 31/12/2002 were extracted.

| Particulars                     | Rs.       | Particulars                    | Rs.          |
|---------------------------------|-----------|--------------------------------|--------------|
| To Opening stock of R.M         | 29,500    | By Closing stock of R.M        | 32,000       |
| To R.M purchased                | 1,86,500  | <u>By W.I.P:</u>               |              |
| To Wages paid                   | 2,81,000  | Materials                      | 4,000        |
| To Wages accrued                | 17,000    | Wages                          | 5,500        |
| To Factory expenses             | 1,90,750  | Factory expenses               | <u>3,300</u> |
|                                 |           | By Cost of goods Manufactured  | 6,59,950     |
|                                 | 7,04,750  |                                | 7,04,750     |
| To Cost of goods Manufactured   | 6,59,950  | By Sales (7,600 units)         | 9,12,000     |
| To Administration expenses      | 1,22,500  | By finished stock (1400 units) | 1,17,600     |
| To Selling & Distribution Exps  | 1,64,000  | By Interest on investment      | 1,300        |
| To Preliminary Exps written off | 10,000    | By dividend earned             | 5,500        |
| To Goodwill written off         | 7,500     |                                |              |
| To Net profit                   | 72,450    |                                |              |
|                                 | 10,36,400 |                                | 10,36,400    |

The following procedure is adopted in costing of the products

- Factory expenses are allocated to production @ 60% on direct labour.
  - Administrative expenses are applied @ Rs.12 p.u. on units produced.
  - Selling expenses are so charged to work out 20% of selling price.
- You are required to prepare a cost sheet in respect of above.

**Q.9.** Prepare a cost sheet showing the total and per tonne cost of paper manufactured by Times Paper Mills Ltd. for the month of March, 2007. There were 26 working days in a month.

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| <u>Direct Raw Materials:</u>       |                                              |
| Paper Pulp                         | 6,000 tons @ Rs.900 tonne.                   |
| <u>Direct Labour:</u>              |                                              |
| 280 Skilled Workmen                | Rs.250 per day                               |
| 300 Semiskilled Workmen            | Rs.150 per day                               |
| 470 Unskilled Workmen              | Rs.100 per day                               |
| <u>Direct Expenses:</u>            |                                              |
| Special Equipments hire charges    | Rs.12,000 per day                            |
| Special dyes                       | Rs.250 per tonne of total raw material input |
| <u>Work Overheads:</u>             |                                              |
| Variable                           | @ 50% Direct Wages                           |
| Fixed                              | Rs.2,70,000 p.m                              |
| Administrative overheads           | @ 12% of Works cost                          |
| Selling and Distribution overheads | Rs.80 per tonne sold.                        |
| Opening Stock of Paper             | 500 tonnes valued @ Rs.2,501.60 per ton      |
| Closing Stock of Paper             | 300 tonnes valued at cost of production      |

The paper is sold @ Rs.3,000 per tonne.

(April 1997)

**Q.10.** Bomb Mills Ltd collected the following figures during the month of September 2003:

|                        |          |                            |          |
|------------------------|----------|----------------------------|----------|
| Opening stock of wheat | 20,000   | Purchases during the month | 4,00,000 |
| Factory wages          | 3,00,000 | Factory salaries           | 80,000   |
| Selling expenses       | 79,000   | Administrative expenses    | 30,000   |

|                        |        |                             |        |
|------------------------|--------|-----------------------------|--------|
| Closing stock of wheat | 30,000 | Other material consumed     | 40,000 |
| Power                  | 50,000 | Packing & delivery expenses | 50,000 |
| Sale of residue        | 5,000  |                             |        |

Production during the month 2,000 tons. Prepare a cost sheet.

- Q.11.** You are required to prepare: (a) Statement of cost of production.  
 (b) Statement of total cost of machines sold. (c) Percentage of net profit to sales.  
 (d) % of prime cost, works cost, & cost of production bear to total cost.

|                          |          |                           |          |
|--------------------------|----------|---------------------------|----------|
| Raw material (1/10/04)   | 30,000   | Purchase of Raw material  | 4,50,000 |
| Wages paid               | 2,30,000 | Factory overheads         | 92,000   |
| W.I.P (1/10/04)          | 12,000   | Raw material (31/3/05)    | 25,000   |
| W.I.P (31/3/05)          | 16,000   | Finished goods (1/10/04)  | 60,000   |
| Finished goods (31/3/05) | 55,000   | Selling & Distribution Oh | 20,000   |
| Sales                    | 9,00,000 | Administration Oh         | 30,000   |

**Q.12.** Dunkel Ltd. started a factory in Navi Mumbai as on 1<sup>st</sup> April, 2005. Following details are furnished about its activity during the year ended 31<sup>st</sup> March, 2006: **(October 1996)**

- 1) Raw Material consumed – 40,000 units @ Rs.7 p.u.
- 2) Direct Wages- Skilled worker Rs.9 p.u, Unskilled Worker Rs.6 p.u.
- 3) Royalty (on raw material consumed) @ Rs.3 per unit.
- 4) Works Overheads @ Rs.8 per machine hour.
- 5) Machine Hours Worked 25,000.
- 6) Office Overheads at 1/3 of works cost.
- 7) Sales Commission @ Rs.4 Per unit.
- 8) Units Produced 40,000.
- 9) Stock of Units at the end 4,000 units to be valued at cost of production per unit.
- 10) Sale Price is Rs.50 per unit.

Prepare cost sheet showing the various elements of cost, both in total & per unit.

**Q.13.** The following details are available for the year ending 2004.

|                                                              |          |
|--------------------------------------------------------------|----------|
|                                                              | Rs.      |
| Direct wages                                                 | 60,000   |
| Purchase of Material                                         | 72,000   |
| Indirect Materials                                           | 5,400    |
| Office Salaries                                              | 7,200    |
| Employer's Contribution to Employees State Insurance         | 600      |
| Printing & Stationary                                        | 1,200    |
| Power & Fuel                                                 | 5,400    |
| Legal Charges                                                | 864      |
| Office Rent                                                  | 1,200    |
| Sales (9000 units)                                           | 1,80,000 |
| <u>Opening Stock :</u>                                       |          |
| Raw Materials                                                | 12,000   |
| Work in Progress                                             | 2,880    |
| Finished Goods (600 units at the rate of Rs. 16.25 per unit) |          |

Closing Stock:

|                             |        |
|-----------------------------|--------|
| Raw Materials               | 13,344 |
| Work in Progress            | 9,600  |
| Finished Goods (1200 units) | ?      |

Value the Finished Stock at Cost of Production. Prepare a Cost Sheet.

**(April 2005)**

**Q.14.** From the following particulars prepare cost sheet:

|                                   |          |
|-----------------------------------|----------|
| Opening Stock of Raw Materials    | 1,10,000 |
| Purchase of Raw Material          | 8,25,000 |
| Carriage Outwards                 | 28,500   |
| Direct Wages                      | 4,21,400 |
| Direct Power                      | 25,840   |
| Technical Directors Salary        | 40,590   |
| Factory Rent, Rates & Insurance   | 10,140   |
| Sale of Factory Scraps            | 1,460    |
| Depreciation on Factory Buildings | 75,200   |
| Closing Work in Progress          | 1,20,260 |
| Factory Stationery                | 12,340   |
| Opening Stock of Finished Goods   | 45,280   |
| Closing Stock of Raw Materials    | 36,920   |
| Fees to Brand Ambassador          | 2,00,000 |
| Stationery and Printing           | 12,200   |
| Staff Salaries                    | 6,30,000 |
| Trade Discount                    | 1,20,000 |
| Office Rent                       | 60,000   |
| Free Sample Expenses              | 20,320   |
| Closing Stock of Finished Goods   | 50,240   |

Sales are made to earn profit @ 10% on Cost Price.

**(October 2006)**

**Q.15.** The following particulars have been extracted from the books of M/s. Sohan Manufacturing Company for the year ended 31-03-2007:

|                                 |           |                                     |          |
|---------------------------------|-----------|-------------------------------------|----------|
| Opening Stock of Raw Materials  | 2,35,000  | Salesmen's Salaries and Commission  | 42,000   |
| Closing Stock of Raw Materials  | 2,50,000  | Productive Wages                    | 7,00,000 |
| Raw Materials Purchase          | 10,40,000 | Depreciation on Plant and Machinery | 35,500   |
| Drawing Office Salaries         | 48,000    | Depreciation on Office Furniture    | 3,000    |
| Royalty on Production           | 70,000    | Directors Fees                      | 30,000   |
| Carriage Inwards                | 41,000    | Gas and Water Charges (Factory)     | 7,500    |
| Cash Discount Allowed           | 17,000    | Gas and Water Charges (Office)      | 1,500    |
| Repairs to Plant and Machinery  | 53,000    | Manager's Salaries                  | 60,000   |
| Rent, Rates and Taxes (Factory) | 15,000    | Cost of Catalogues Printing         | 10,000   |
| Rent, Rates and Taxes (Office)  | 8,000     | Loose Tools Written off             | 8,000    |
| Office Conveyance               | 15,500    | Trade-Fair Expenses                 | 10,000   |

Out of 48 hours in a week, Manager devotes 40 hours for factory and 8 hours for office per week for the whole year. The Management has fixed the selling Price @ 110% of cost. Prepare detailed cost statement for the year ended 31-03-2007.

**(April 2008)**

**Q.16.** From the books of accounts of M/s Avadhoot Enterprises, the following details have been extracted for the year ended 31.12.2005:

|                                     |           |
|-------------------------------------|-----------|
| Stock of Materials – Opening        | 2,70,000  |
| Stock of Materials – Closing        | 3,00,000  |
| Purchases of Materials              | 12,48,000 |
| Direct wages                        | 3,57,600  |
| Direct Expenses                     | 1,20,000  |
| Indirect Wages                      | 24,000    |
| Salaries to administrative staff    | 60,000    |
| Carriage inwards                    | 48,000    |
| Carriage Outwards                   | 37,500    |
| Managers Salary                     | 72,000    |
| General Charges                     | 37,200    |
| Legal Charges for Criminal Suit     | 20,000    |
| Commission on Sales                 | 28,000    |
| Fuel                                | 96,000    |
| Electricity Charges (Factory)       | 72,000    |
| Directors Fees                      | 36,000    |
| Repairs to Plant and Machinery      | 63,000    |
| Rent, Rates and Taxes – Factory     | 18,000    |
| Rent, Rates and Taxes – Office      | 9,600     |
| Depreciation on Plant and Machinery | 45,000    |
| Depreciation on Furniture           | 3,600     |
| Salesman salaries                   | 50,000    |
| Audit Fees                          | 18,000    |

(1) The Managers time is shared between the factory and the office in the ratio of 20:80

(2) Carriage outwards include Rs.7,500 being carriage inwards on Plant and Machinery

(3) Selling Price is the 120% of the cost price.

From the above details prepare detailed cost sheet for the quarter ending 31.12.2005 and ascertain sales. **(April 2006)**

**Q.17.** Prepare cost sheet for the year ended 31.3.09.

**(October 2010)**

|                                         |           |                        |          |
|-----------------------------------------|-----------|------------------------|----------|
| <u>Opening Stock:</u>                   |           | <u>Depreciation:</u>   |          |
| Raw Materials                           | 20,000    | Plant and Machinery    | 80,000   |
| Finished Goods                          | 30,000    | Delivery Van           | 20,000   |
| Purchase of Raw Materials               | 15,00,000 | Income Tax             | 1,20,000 |
| Direct Wages                            | 12,00,000 | Salaries               | 2,50,000 |
| Power                                   | 99,500    | Donations              | 70,000   |
| Carriage on Purchase of Raw Materials   | 20,000    | Establishment Expenses | 1,00,000 |
| Cost of a Special design                | 50,000    | Rent of Showroom       | 65,000   |
| Custom Duty and Octroi on Raw Materials | 60,000    | Interest on Loan       | 45,000   |
| <u>Rent and Rates:</u>                  |           | Sale of Factory Scrap  | 7,500    |
| Office                                  | 50,000    | Dividend Received      | 17,500   |
| Factory                                 | 70,000    | Directors Fees         | 60,000   |
|                                         |           | Mailing Charges        | 10,000   |
|                                         |           | of Sale Literature     |          |

|                     |        |                        |          |
|---------------------|--------|------------------------|----------|
| Telephone Expenses  | 30,000 | <u>Closing Stock:</u>  |          |
| Advertisement       | 75,000 | Raw Materials          | 1,85,000 |
| <u>Electricity:</u> |        | Finished Goods         | 30,000   |
| Office              | 15,000 | Machinery Lost in Fire | 1,00,000 |
| Factory             | 30,000 |                        |          |

**Q.18.** Details are furnished by K.K.Ltd of expenses incurred during the year ended 31.3.06:

|                                     |          |                                   |          |
|-------------------------------------|----------|-----------------------------------|----------|
| Direct Wages                        | 1,10,000 | Audit Fees                        | 11,500   |
| Purchase of Raw Materials           | 2,40,000 | Demonstration Expenses            | 13,300   |
| Factory Rent                        | 35,000   | Furniture Loss by Fire            | 8,000    |
| Cost of Catalogues                  | 17,100   | Indirect Materials                | 26,000   |
| Sundry Expenses                     | 18,500   | Office Salaries                   | 27,500   |
| Depreciation on Plant and Machinery | 19,000   | Store Keepers Salary              | 9,000    |
| Opening Stock of Raw Materials      | 25,000   | Depreciation on Office Equipments | 10,000   |
| Repairs to Office Furniture         | 12,500   | Commission on Sales               | 15,675   |
| Carriage Outwards                   | 25,650   | Direct Expenses                   | 90,000   |
| Interest on Loans                   | 12,700   | Materials Handling Charges        | 11,000   |
| Closing Stock of Raw Materials      | 15,000   | Machinery Purchased               | 1,40,000 |
| Distribution of Free Samples        | 13,775   |                                   |          |

(a) Stock of Finished Goods at the end 500 units to be valued at cost of production.

(b) Number of Units sold during the year were 9,500.

(c) Profit desired on sales is 20%.

Prepare Cost Sheet showing the various elements of cost both in total and per unit and also find out the total profit and per unit profit. **(April 2010)**

### **DOUBLE PRODUCT COST SHEET**

**Q.19.** Sapna transistors ltd Manufactures 2 kinds of transistors viz. Sapna & Dreamland. From the following particulars, prepare a statement showing the cost & profit per transistors for each of the 2 brands.

| Particulars                                                            | Sapna (Rs.) | Dreamland (Rs.) |
|------------------------------------------------------------------------|-------------|-----------------|
| Materials                                                              | 1,40,000    | 96,000          |
| Wages                                                                  | 1,80,000    | 1,20,000        |
| No. of transistors manufactured and sold during the year ended 31/3/76 | 4,000       | 2,400           |
| Sale price per transistor                                              | 175         | 200             |

Factory overheads are 100% on wages & the office overheads are 20% on works cost. Selling and distribution overhead are Rs 10 Per transistor. Prepare a statement of cost.

**Q.20.** M/s Vishal Mfg. Co. manufactures two types of products viz. A and B. The information for the year ended on 31<sup>st</sup> March, 2008 is under **(April, 1998)**

| Particulars              | Products |         |
|--------------------------|----------|---------|
|                          | A (Rs.)  | B (Rs.) |
| Direct Material Per unit | 100      | 120     |
| Direct Labour Per unit   | 60       | 50      |
| Direct Expenses Per unit | 40       | 80      |

Factory Expenses are charged at 20% of Prime Cost

Office Expenses are charged at 25% of Works Cost.

2,000 units of Product A were produced of which 1,500 units were sold and 5,000 units of Product B were produced of which 4,500 units were sold.

Selling expenses are Rs.15 per unit for product A and Rs.20 per unit for Product B.

Company charges a profit at 20% on sales for both the products.

Prepare a cost sheet showing the cost and profit in total as well as in per unit.

**Q.21.** M/s ABC shoes co. manufactures 2 types of shoes A & B. Prepare a statement showing cost and profit. Production cost for the year ended 31/3/2005 were:

| Particulars         | Rs.       |
|---------------------|-----------|
| Direct materials    | 15,00,000 |
| Direct wages        | 8,40,000  |
| Production overhead | 3,60,000  |
|                     | 27,00,000 |

There was no Work in Progress at the beginning or at the end of the year. It is ascertained that:

- Direct material in Type A shoes consists twice as much as in type B
- Direct wages for type B shoes were 60% of those of Type A shoes
- Production oh was the same per pair of A & B type.
- Administration oh for each type was 150% of direct wages
- Selling cost was Rs. 1.50 per pair
- Production during the year was Type A 40,000 pairs of which 36000 were sold and type B 1,20,000 pairs of which 1,00,000 were sold.
- Selling price was Rs 44 for Type A and Rs. 28 for type B per pair.

**Q.22.** In a factory 2 types of radios are manufactured viz. Akai & Sony models. From the following particulars prepare a statement showing cost & profit per radio sold. There is no opening or closing Stock.

| Particulars | Akai   | Sony     |
|-------------|--------|----------|
| Materials   | 27,300 | 1,08,680 |
| Labour      | 15,600 | 62,920   |

Work overhead is charged @ 80% on labour and office overhead is taken @ 15% on works cost. The selling price of both radios is Rs 1000. 78 Akai Radios & 286 Soni radios were sold and purchased.

**Q.23.** A Company manufactures 2 types of products viz. A and B. Following information is available for the year ended 31.3.2008

| Particulars      | Rs.      |
|------------------|----------|
| Direct materials | 6,75,000 |
| Direct wages     | 9,90,000 |
| Works overheads  | 1,95,000 |

- Direct material used per unit in Product A was 3 times that of Product B.
- Direct wages per unit in Product B were 2/3 that of product A.
- Works overheads per unit were the same for both the products.

- 4) Administration overheads were 100% of the prime cost in each of the products.
- 5) Selling and Distribution cost per unit was Rs.6 for both A & B.
- 6) 35,000 units of product A were produced, of which 32,000 units were sold @ Rs.100/- p. u.
- 7) 30,000 units of Product B were produced, of which 25,000 units were sold @ Rs.65/- p.u.

Prepare Cost Sheet showing total cost and per unit for both the products. **(October 1998)**

**Q.24.** M/s. Vidya Pen Company manufactures two types of pens "Sharada " and "Viveka". The particulars for the year ended 31<sup>st</sup> March,2009 were as follows:

| Particulars     | Rs.       |
|-----------------|-----------|
| Direct Material | 5,00,000  |
| Direct Wages    | 2,25,000  |
| Direct Expenses | 75,000    |
| Total Sales     | 10,00,000 |

- 1) Direct Material p.u in "Sharada Pen " consists twice as much as that in type "Viveka Pen"
  - 2) The Direct Wages per unit for "Viveka Pen" were 40% of those for "Sharada Pen ".
  - 3) Direct Expenses were same per unit for Viveka as well as Sharada Pen.
  - 4) Factory Overheads were 20% of the prime cost.
  - 5) Administrative Overheads were 50% of Direct Wages.
  - 6) 2,500 units of Sharada Pen were produced of which 2,000 were sold and 5,000 units of Viveka Pen were produced of which 4,000 were sold, during the year.
  - 7) Selling Overheads were Rs.8 p.u. for Sharada Pen and Rs.9 p.u for Viveka Pen.
  - 8) Selling price per unit for Sharada Pen was Rs.250 and Viveka Pen was Rs.125
- Prepare Cost Sheet in total as well as P.U. for Sharada, pen and Viveka Pen. **(October 1999)**

### DUAL PRICE CALCULATION

**Q.25.** The Government of India has instituted the dual pricing system in the industry in which your organisation operates. You are the head of the costing division of Raja textiles. Ltd. Your company produces a standard type of cloth, 50% of which is procured by the government at a price of Rs. 4 per meter. You are required by the managing director of your company to suggest a suitable price for the cloth to be sold in the open market. Production during 2004-05 has been 20,00,000 meters of cloth. Relevant information is given below.

|                                                     |           |                                                              |           |
|-----------------------------------------------------|-----------|--------------------------------------------------------------|-----------|
| Cotton consumed                                     | 10,00,000 | Depreciation of Office Machines                              | 1,00,000  |
| Direct labour in factory                            | 10,00,000 | Miscellaneous office expenditure                             | 1,00,000  |
| Carriage inward                                     | 50,000    | Purchase of computers for office                             | 20,00,000 |
| Indirect labour in factory                          | 4,00,000  | Miscellaneous purchase of furniture and machinery for office | 5,00,000  |
| Salary of works director and other staff in factory | 2,50,000  | Dividend paid                                                | 12,00,000 |
| Water, power, taxes (factory)                       | 5,00,000  | Directors fees                                               | 2,00,000  |
| Dyeing, bleaching etc.                              | 10,00,000 | Advertising                                                  | 10,00,000 |
| Depreciation(Factory)                               | 2,00,000  | Commission to Salesman                                       | 10,00,000 |
| Excise & other taxes                                | 30,00,000 | Packing & Forwarding (Sales)                                 | 2,00,000  |
| Miscellaneous exps (Factory)                        | 1,00,000  |                                                              |           |
| Salary of managing director                         | 1,00,000  |                                                              |           |

|                                   |           |  |  |
|-----------------------------------|-----------|--|--|
| Office salaries                   | 10,00,000 |  |  |
| Commission paid to foreign buyers | 1,00,000  |  |  |
| Expenditure on Sales depot        | 4,00,000  |  |  |

- 1) The company expects a fair return of 20% on its paid up capital, which is Rs.1,00,00,000.
  - 2) Marketing expenses are outstanding Rs.1,00,000
- Suggest the open market price after preparing a cost analysis sheet.

**Q.26.** The State Government granted license to Sweet Sugar Ltd. to manufactures and sell sugar with a stipulation that 40% of the output should be sold to the State Government at a controlled price of Rs.3,000/- per ton and the balance output can be sold in the open market at any price. Following are the details of Sweet Sugar Ltd. for the year ended 31<sup>st</sup> March,2009.

During the year 3,600 tons Sugarcane was consumed @ Rs.1,000/- per ton.

Direct labour amounted to Rs.825 per ton of Sugar produced.

The details of other expenditure are as follows:

| Particulars                | Rs.      | Particulars                  | Rs.      |
|----------------------------|----------|------------------------------|----------|
| Direct Expenses            | 4,20,000 | Bank Interest                | 1,65,895 |
| Telephone Charges          | 3,52,695 | Factory Electricity          | 2,61,880 |
| Office Computer purchased  | 2,75,350 | Delivery Van Expenses        | 1,06,850 |
| Factory Rent and Insurance | 3,54,760 | Coal Consumed                | 3,80,125 |
| Machinery purchased        | 4,25,560 | Depreciation on Machinery    | 2,49,600 |
| Machinery Repairs          | 98,847   | Depreciation on Computer     | 2,04,180 |
| Commission on Sales        | 3,37,650 | Depreciation on Delivery Van | 1,57,360 |
| Factory Salaries           | 2,19,588 | Office Salaries              | 1,89,325 |
| Carriage Outward           | 1,54,090 | Printing and Stationery      | 1,13,000 |
| Packing Expenses           | 1,94,450 |                              |          |

During the year 2,400 tons of Sugar was produced. The Company's Profit target for the year, for fixing the open market selling price on the basis of cost sheet, is 10% of it's average paid-up Capital of Rs.1,42,56,000.

Prepare cost sheet and find various components of total cost and per unit cost and suggest the Selling Price for Open Market. **(April 2000)**

### ESTIMATED COST SHEET

**Q.27.** On 12th November,2004 the Hero Cycle Manufacturing Company was required to quote for a contract for the supply of 500 bicycles. From the following details prepare a

statement showing the price to be quoted to give the same percentage of net profit on turnover as was realised during the 6 months to 30th September 2004:

|                                                         |        |                                 |          |
|---------------------------------------------------------|--------|---------------------------------|----------|
| <u>Stock of materials:</u>                              |        | Direct Wages for 6 months       | 1,50,000 |
| On 1/4/04                                               | 50,000 | Indirect Charges for 6 months   | 25,000   |
| On 30/9/2004                                            | 7,000  | <u>Completed Stock in hand:</u> |          |
| Purchase of materials (6 months from 1/4/04 to 30/9/04) | 75,000 | On 1/4/04                       | Nil      |
|                                                         |        | On 30/9/04                      | 50,000   |

The number of bicycles manufactured during the 6 months was 2,000 including those sold and those in stock at the end of the period. The bicycles to be quoted for are to be of uniform size and quality and similar to those manufactured during 6 months ended 30th September. As from 1st November, the cost of factory labour has increased by 10% & that of materials by 15%. Sales during 6 months to 30/9/04 was Rs. 2,70,000

**Q.28.** From the following particulars you are required to prepare a statement showing:

- a) The cost of materials consumed b) Prime cost c) Works cost d) Total cost  
e) The percentage of general overhead to works cost.

|                                 |           |                                 |          |
|---------------------------------|-----------|---------------------------------|----------|
| Opening Stock of finished goods | 72,800    | Office & general expenses       | 70,161   |
| Purchase of raw materials       | 7,59,200  | Opening Stock of raw materials  | 33,280   |
| Sales of finished goods         | 15,39,200 | Productive wages                | 5,16,880 |
| Work overhead charges           | 1,29,220  | Closing Stock of finished goods | 78,000   |

The Company is about to send a tender for a large plant. The costing dept. estimated that the materials required would cost Rs 52,000 & the Wages to workmen for making the plant would cost Rs 31,200. The tender is to be made at a net profit of 20% on selling price. Show what would be the amount of tender if based on the above percentages.

**Q.29.** Ms Godan & sons manufactured and sold 2,000 typewriters in the year 07-08.

Its summarized Trading & profit & loss account for the year 2007-08 is as below:

| Particulars              | Rs       | Particulars         | Rs       |
|--------------------------|----------|---------------------|----------|
| To Materials consumed    | 1,20,000 | By Sales            | 6,00,000 |
| To Direct wages          | 1,80,000 |                     |          |
| To Manufacturing Charges | 75,000   |                     |          |
| To Gross profit c/d      | 2,25,000 |                     |          |
|                          | 6,00,000 |                     | 6,00,000 |
| To Management expenses   | 90,000   | By Gross profit b/d | 2,25,000 |
| To General expenses      | 30,000   |                     |          |
| To Rent Rates & taxes    | 15,000   |                     |          |
| To Selling expenses      | 45,000   |                     |          |
| To Net profit            | 45,000   |                     |          |
|                          | 2,25,000 |                     | 2,25,000 |

For the year 2008-09 it is estimated that:

- a) Output & sales will be 3,000 typewriters.  
b) Price of materials will rise by 25% whereas Wages per unit will rise by 10%  
c) Manufacturing charges will increase in proportion to the combined cost of materials & wages.  
d) Selling cost per unit will remain unchanged.  
e) Other expenses will remain unaffected by the rise in output.

Prepare a statement showing the cost at which typewriters will be manufactured in 08-09 and give price at which it should be marketed so as to give a profit of 10% on selling price.

**Q.30.** Vijaya Manufacturing company for the year ended 31-12-2008 was as follows:

| Particulars                   | Rs.      | Particulars                          | Rs.      |
|-------------------------------|----------|--------------------------------------|----------|
| To Raw materials purchased    | 80,000   | By Sales (2500 units)                | 2,50,000 |
| To direct wages               | 30,000   | By Closing stock of raw<br>Materials | 5,000    |
| To Direct expenses            | 25,000   |                                      |          |
| To Factory expenses           | 40,000   |                                      |          |
| To Gross profit c/d           | 80,000   |                                      |          |
|                               | 2,55,000 |                                      | 2,55,000 |
| To Office salaries            | 25,000   | By Gross profit b/d                  | 80,000   |
| To Office rent                | 12,000   | By Dividend received                 | 10,000   |
| To Selling expenses           | 12,500   | By Discount received                 | 7,500    |
| To Preliminary expenses W/off | 2,500    |                                      |          |
| To Goodwill W/off             | 5,500    |                                      |          |
| To Net profit c/d             | 40,000   |                                      |          |
|                               | 97,500   |                                      | 97,500   |

For the year ended 2009, it is estimated that: –

- 1) Units produced and sold will rise by 20%.
- 2) Prices of Raw Material per unit will rise by 10%.
- 3) Direct Wages per unit will increase by 25%.
- 4) Direct Expenses will increase by Rs. 5,000 in total.
- 5) Factory Expenses per unit will increase by 25%.
- 6) The Office premises which were on rental basis in 2008 would be purchased by the company, on which depreciation would be Rs. 6,000/- in 2009.
- 7) Selling expenses per unit will remain same.

Prepare a statement showing estimated cost and profit for the year ended 31-12-2009 considering that company shall charge a profit at 20% on sales. **(April 1999)**

**Q.31.** The following information has been obtained from the cost Ledger of a manufacturing concern for the year 2004-05:

| Particulars                            | Rs.    |
|----------------------------------------|--------|
| Rates of Factory                       | 1,400  |
| Lighting of Factory                    | 2,600  |
| Depreciation on plant                  | 3,500  |
| Clerical salaries                      | 12,000 |
| Management Expenses                    | 6,000  |
| Power                                  | 4,500  |
| Factory Indirect Wages                 | 12,250 |
| Plant Repairs and Maintenance          | 10,000 |
| Defective Work (cost of Rectification) | 2,800  |
| Consumable Stores                      | 7,500  |
| Selling Expenses                       | 7,330  |
| General Expenses                       | 4,600  |
| Receipts from sale of scrap            | 1,200  |

|                     |     |
|---------------------|-----|
| Profit from Canteen | 500 |
|---------------------|-----|

Production has been 1,00,000 units, the prime cost of which has been as: Materials 90 Paise and Wages 60 Paise per unit. The net selling price was Rs.2.35 per units being sold.

As from 1st April, 2005-06 the selling price was reduced to Rs.2.25 per unit. It was estimated that production could be increased in 2005-06 50% without adding an extra shift. You are asked to prepare statements showing:

- The various elements of cost in 2004-05,
- The estimated cost and profit for 2005-06 assuming that 1,50,000 units will be produced and sold in that year.

**Q.32.** Your company is an export-oriented organisation manufacturing a certain product. The company is to send quotations to the foreign buyers of your product. As the cost accountant you are required to help the management in the matter of submission of the quotation by the Preparation of a cost estimate based on the following figures relating to the year 2008.

(Total output in units 20,000)

|                                   |           |
|-----------------------------------|-----------|
| Local raw materials consumed      | 10,00,000 |
| Imports of raw materials          | 1,00,000  |
| Direct labour in works            | 10,00,000 |
| Indirect labour in works          | 2,00,000  |
| Storage charges of raw materials  | 50,000    |
| Fuel                              | 1,50,000  |
| Tools consumed                    | 20,000    |
| Depreciation on plant             | 1,00,000  |
| Salaries of work personnel        | 1,00,000  |
| Excise duty                       | 2,00,000  |
| Administrative expenses.          | 2,00,000  |
| Salary of Joint managing director | 40,000    |
| Fees of directors                 | 20,000    |
| Expense on advertising            | 1,60,000  |
| Selling expenses                  | 1,80,000  |
| Sales depot exp.                  | 1,20,000  |
| Packing and Distributing.         | 1,20,000  |

- Local raw material now costs 10% more.
  - A profit margin of 10% on sales is kept.
  - The govt. grants subsidy of Rs. 100 per unit of export.
- Prepare a cost statement for the year 2008 and prepare quotation.

**Q.33.** The following figures have been obtained from the cost records of Z Manufacturing Company for the year 2004-05:

| Particulars       | Rupees   |
|-------------------|----------|
| Cost of materials | 2,40,000 |
| Wages for labour  | 2,00,000 |
| Factory overheads | 1,20,000 |

|                         |          |
|-------------------------|----------|
| Distribution expenses   | 56,000   |
| Administration expenses | 1,34,400 |
| Selling expenses        | 89,600   |
| Profit                  | 68,000   |

A work order has been executed during the year 2005-06 & the expenses have been incurred: (a) Cost of materials Rs.32,000 and (b) Wages Rs.20,000.

Assuming that overheads went up by 20%, distribution charges went down by 10% and selling and administration expenses went up by 12.5%. At what price should the product of the job be quoted so as to earn the same (earlier) rate of profit on the selling price? Distribution, administrative and selling charges are based on the factory cost.

**Q.34.** The following figures relate to the costing records of manufacture of Sandhya electric fan of 1 standard type for a period of 3 months:

|                               |          |                        |           |
|-------------------------------|----------|------------------------|-----------|
| Completed stock 1/4/05        | Nil      | Wages of workers       | 7,50,000  |
| Completed stock on 30/6/05    | 2,02,000 | Indirect overheads     | 1,25,000  |
| Stock of raw material 1/4/05  | 50,000   | Raw material purchases | 3,25,000  |
| Stock of raw material 30/6/05 | 35,000   | Sales                  | 11,25,000 |

The number of fans manufactured during the 3 months were 20,000. Prepare a statement showing the cost per fan & the price to be quoted for 10,000 fans to realise the same percentage of gross profit as was realised during the 3 months referred to above. Assume that there are no changes in cost.

**Q.35.** Following information relates to the cost of manufacturing electric fans of uniform size & quality for the 3 months ended 31/12/02.

|                                             |          |
|---------------------------------------------|----------|
| Opening Stock of finished goods on 1.10.02  | Nil      |
| Closing stock of finished goods on 31.12.02 | 20,250   |
| Raw materials on 1.10.02                    | 5,000    |
| Raw materials on 31.12.02                   | 3,500    |
| Factory Wages                               | 75,000   |
| Indirect Expenses                           | 12,500   |
| Materials purchased during the quarter      | 32,500   |
| Sales during the quarter                    | 1,12,500 |

Number of fans manufactured during the quarter was 3,000 units. Prepare a cost sheet to find out cost of each fan, also make a statement to find out profit or loss made during the quarter.

What price is to be quoted for 750 fans to realize the same % of profit as realized during the quarter-ended 31.12.02

**Q.36.** Swadeshi Electronics Ltd have the following information for the year ended 31.3.2006:

|                              |           |
|------------------------------|-----------|
| Production and Sales (units) | 15,000    |
| Sales (Rs)                   | 12,75,000 |
| Direct Wages                 | 2,70,000  |
| Direct materials             | 3,30,000  |

|                          |          |
|--------------------------|----------|
| Factory overheads        | 2,25,000 |
| Administrative overheads | 1,05,000 |
| Sales overheads          | 90,000   |

On account of intense competition, following changes are estimated in following year

- 1) Production and Sales activity will be increased by 1/3<sup>rd</sup>.
- 2) Materials rate will be lower by 25%. However, there will be increase in consumption by 20% due to quality difference.
- 3) Direct Wages cost will be reduced by 20% due to automation.
- 4) Out of the above factory overheads, Rs.45,000 are of fixed nature. The remaining factory expenses are variable in proportion to the number of units produced.
- 5) Total administrative overheads will be lower by 40%.
- 6) Sales overheads per unit will remain the same.
- 7) Sale price per unit would be lower by 20%.

Prepare a statement of cost for both the years ending 31<sup>st</sup> March, 1996 and 31<sup>st</sup> March 2007. Show maximum details of cost. **(April 1996)**

**Q.37.** Super Vision furnishes you with the following information about its 1000 TV. Sets manufactured and sold during the year:

|                                |           |                            |           |
|--------------------------------|-----------|----------------------------|-----------|
| Materials                      | 18,00,000 | Office & Administration Ex | 6,80,000  |
| Direct Wages                   | 10,00,000 | Selling & Distribution Ex  | 1,20,000  |
| Power & Stores                 | 2,40,000  | Sale of Scrap              | 40,000    |
| Indirect Wages                 | 3,00,000  | Sale of 1000 TV sets       | 62,00,000 |
| Factory Lighting               | 1,20,000  | Repairs & Depreciation of  |           |
| Cost of rectify defective work | 60,000    | Machinery                  | 2,00,000  |

Prepare the cost sheet for the above year, showing the elements of cost per unit. Prepare also the estimated cost sheet for the next year assuming that:-

- 1) Materials cost & direct wages cost will increase by 10% & 15% respectively.
- 2) Factory-overheads will be recovered as a % of direct wages, as last year.
- 3) Office-Overheads and Selling Overheads will be recovered as % of works cost, as last year,
- 4) 1500 TV sets will be produced & sold at Rs.6,500 each in the next year. **(April 2002)**

**Q.38.** Following information for 10000 T.V. valves manufactured during the year 2007-08.

|                                            |        |
|--------------------------------------------|--------|
| Materials                                  | 90,000 |
| Direct wages                               | 60,000 |
| Power & consumable stores                  | 12,000 |
| Factory indirect wages                     | 15,000 |
| Lighting of factory                        | 5,500  |
| Defective work (Cost of rectification)     | 3,000  |
| Clerical salaries & management expenses    | 33,500 |
| Selling expenses                           | 5,500  |
| Sale proceeds of scrap                     | 2,000  |
| Plant repairs & maintenance & depreciation | 11,500 |

The net selling price was Rs 31.60 per unit sold and all units were sold. As from 1/4/08 the selling price was reduced to Rs.31 per unit. It was estimated that production could be increased in 2008-09 by 50% due to spare capacity. Rates for materials & direct wages will increase by 10%.

You are required to prepare:

- 1) Cost sheet for the year 2007-08 showing various elements of cost.
- 2) Estimated cost profit for 2008-09 assuming that 15,000 units will be produced and sold during the year & factory overheads will be recovered as a percentage of direct wages and office and selling expenses as a percentage of works cost.

**Q.39.** The Management of a manufacturing concern has approached the Costing Department to find out the cost of 6,000 units. The cost analysis of 4000 units gives the following results:

1. Materials Rs. 90,000.
2. Labour Rs. 50,000.
3. Direct Expenses Rs. 1,000.
4. Factory Overheads Rs. 2,000.
5. Administrative Overheads Rs. 1,600.
6. Selling and Distribution Overheads Rs. 800.

The further details in this connection are as follows:-

- (a) An increase of 10% is expected in the cost of raw material and 5% in the cost of labour.
- (b) 70% of the factory overheads are fixed and 30% are variable.
- (c) The ratio of fixed and variable part of administration overheads is 60:40.
- (d) 50% of the Selling and Distribution overheads are fixed.

The management desires to charge 25% profit on sale price.

Prepare cost statement for 4000 units with maximum break up of cost and ascertain selling price for the production of 6000 units. **(April 2007)**

**Q.40.** Following information is available from cost records for the year ended 31st Dec, 2004.

|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Direct Material                 | Rs. 36 Per Unit                                |
| Direct Labour                   | Rs. 28 Per Unit.                               |
| Chargeable Expenses             | Rs. 11 Per Unit                                |
| Factory Overheads               | Fixed Rs. 16,00,000<br>Variable Rs.10 Per Unit |
| Office Overheads                | Fixed Rs. 12,50,000                            |
| Selling Overheads               | Fixed Rs. 5,00,000<br>Variable Rs.25 per unit  |
| Units Produced & sold 50,000    |                                                |
| Selling price. Per Unit Rs. 210 |                                                |

Following changes are anticipated during the year ended 31st December, 2005.

- (1) Production and sales will increase by 60%.
- (2) Direct material cost per unit will increase by 12.5%
- (3) Direct labour per unit will decrease by 5%
- (4) Chargeable expenses per unit will decrease by 10%
- (5) Variable factory overheads per unit will increase by 25%
- (6) Variable selling overheads will decrease by 25%
- (7) All fixed overheads will increase by 20%
- (8) 75% of the output will sold in Domestic Market at a profit of 20% on sales.
- (9) Balance 25% output will be sold in Export Market at a profit of 50 % on sales.

You are required to :

- (1) Prepare cost sheet for the year ended 31st December 2004 and estimated cost for the year ended 31st December 2005., Showing total and per unit cost.
- (2) Calculate total and per unit profit for the year ended 31st December 2004.
- (3) Calculate total sales and profit for Domestic Market and Export Market. **(Oct 2005)**

**Q.41.** The following information for the year ending 31<sup>st</sup> March 2008 is taken from the books of Sajjan Company which manufacture cycle: **(October 2009)**

|                                  |           |
|----------------------------------|-----------|
| Direct Materials Consumed        | 7,50,000  |
| Direct Wages                     | 4,50,000  |
| Direct Expenses                  | 3,00,000  |
| Indirect Materials Consumed      | 35,000    |
| Depreciation on Machinery        | 26,500    |
| Indirect Wages                   | 61,500    |
| Technical Directors Fees         | 17,500    |
| Other Factory Expenses           | 2,34,500  |
| Commission to Salesman           | 1,58,500  |
| Office Staff Salaries            | 1,85,000  |
| Audit Fees                       | 22,000    |
| Showroom Expenses                | 1,44,700  |
| Other Administrative Expenses    | 1,68,000  |
| Carriage Outwards                | 31,700    |
| Advertisements                   | 1,15,100  |
| Preliminary expenses written off | 22,500    |
| Provision for Tax                | 1,50,000  |
| Sales                            | 30,00,000 |

During the year ended 31<sup>st</sup> March 2008, 1500 cycles were produced and sold.

Following estimates have been made for the year ended 31<sup>st</sup> March 2009:

- (a) Production and Sale of Cycles will be doubled.
- (b) Direct Materials cost per unit will rise by 50%.
- (c) Direct Wages per unit will increase by 25%
- (d) Direct Expenses per unit will be in the same proportion to Direct wages as in the previous year.
- (e) Total factory overheads will be in the same proportion to Prime Cost. Total Administrative overheads in the same proportion to works cost and total selling and distribution overheads in the same proportion to cost of production as in the previous year.
- (f) The management desires to charge profit on sales price in the same proportion as in the previous year.

Required: (a) Cost Sheet for the year ended 31<sup>st</sup> March 2008 showing total cost and cost per unit and also total profit and per unit profit.

- (a) Estimated Cost Sheet showing total cost and cost per unit for the year ended 31<sup>st</sup> March 2009 with projected selling price and profit.

**CAPACITY LEVEL QUESTIONS**

**Q.42.** A factory can produce 60,000 units p.a at its optimum 100% capacity. The estimated cost of production is as under:

|                                   |                                                                                                                     |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Direct material                   | Rs 3 p.u                                                                                                            |
| Direct labour                     | Rs 2 p.u                                                                                                            |
| <u>Factory overhead:</u>          |                                                                                                                     |
| Fixed                             | Rs 1,50,000 p.a                                                                                                     |
| Variable                          | Rs 5 p.u                                                                                                            |
| Semi variable                     | Rs 50,000 p.a upto 50% capacity & an extra expenses of Rs10,000 for every 25% increase in capacity or part thereof. |
| Administrative Overhead           | Rs 1,33,000 p.a                                                                                                     |
| Selling and distribution overhead | Rs 2 per unit sold                                                                                                  |

The factory produces only against orders & not for own stock. The production programme for the year is indicated as follows:

First 3 months of the year : 50% of the capacity

Remaining 9 months : 80% of the capacity

Management desires to earn the profit of 50% on selling price. Work out the average selling price at which each unit should be quoted.

**Q.43.** A factory can produce 60,000 units p.a at its optimum 100% capacity. The estimate cost of production are as under.

|                   |                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------|
| Particulars       |                                                                                                             |
| Direct material   | Rs. 3 per unit                                                                                              |
| Direct labour     | Rs 2 per unit subject to a minimum of 6.000 p.m                                                             |
| <u>Overheads:</u> |                                                                                                             |
| Fixed             | 1,00,000 p.a                                                                                                |
| Variable          | Rs 2 per unit.                                                                                              |
| Semi variable     | Rs 40,000 upto 50% capacity and an additional Rs 10,000 for every 20% increase in capacity or part thereof. |

Each unit of raw material yields scrap which is sold @ 20 paise per unit. In 2004 the factory worked at 50% capacity for the first 3 months but it was expected that it would work at 80% capacity for the remaining 9 months.

During the first 3 months the selling price per unit was Rs 12. What should be the price for the remaining 9 months to produce a total profit of Rs 1,00,000.

**Q.44.** Vaijnath Polymers manufactures and sells a typical brand of tiffin boxes under its own brand name. The installed capacity of the plant is 1,20,000 units per year, distributable evenly over each month of calendar year. The Cost Accountant of the company has informed you about the cost structure of the product , which is as follows:

- 2) Raw Materials Rs.20 per unit.
- 3) Direct Labour Rs.12 per unit.
- 4) Direct expenses Rs.2 per unit.
- 5) Variable Overheads Rs.16 per unit.
- 6) Fixed Overheads for the year Rs.3,00,000.
- 7) Semi-Variable Overheads are as follows:

- a) Rs.7,500 per month upto 50 % capacity and  
 b) Additional Rs.2,500 per month for every additional 25% capacity utilisation or part thereof.

The plant was operating at 50% capacity during the first seven months of the calendar year 2009 and at 100% capacity in the remaining months of the year.

The Selling price for the period from 1<sup>st</sup> January 2009 to 31<sup>st</sup> July,2009 was fixed at Rs.69/- per unit. The firm has been monitoring the profitability and revising the selling price to meet its annual profit target of Rs.8 lakhs. You are required to suggest the selling price per unit for the period from 1<sup>st</sup> August, 2009 to 31<sup>st</sup> December, 2009.

Prepare cost sheet clearly showing the total and per unit cost and also profit for the period:  
 (a) From 1<sup>st</sup> Jan '09 to 31<sup>st</sup> July '09. (b) From 1<sup>st</sup> Aug '09 to 31<sup>st</sup> Dec '09. **(October 2000)**

### SEPARATION OF SEMI VARIABLE COST INTO FIXED AND VARIABLE

**Q.45.** The cost of an article at an capacity level of 5,000 units is given under 'A' below. For variation of 25% in capacity above or below this level the individual expenses vary as indicated in 'B' below.

| Particulars              | A      | B            |
|--------------------------|--------|--------------|
| Material cost            | 25,000 | 100% varying |
| Labour cost              | 15,000 | 100% varying |
| Power                    | 1,250  | 80% varying  |
| Repairs & maintenance    | 2,000  | 75% varying  |
| Stores                   | 1,000  | 100% varying |
| Inspection               | 500    | 20% varying  |
| Depreciation             | 10,000 | 100% Fixed   |
| Administration overheads | 5,000  | 25% varying  |
| Selling overheads        | 3,000  | 50% varying  |
|                          | 62,750 |              |
| Cost per unit            | 12.55  |              |

Find out the unit cost of the product under each individual expenses at production levels of 4000 & 6000 units.

**Q.46.** A factory manufactures a standard uniform product & has a capacity of 4,000 units per week. The following information shows elements of cost for 3 consecutive weeks:

| Week                                                  | I      | II       | III    |
|-------------------------------------------------------|--------|----------|--------|
| Units produced                                        | 1,200  | 1,800    | 2,400  |
| Direct materials                                      | 12,000 | 18,000   | 24,000 |
| Direct labour                                         | 10,800 | 16,200   | 21,600 |
| Factory overheads<br>(Partly fixed & partly variable) | 32,400 | 36,600   | 40,800 |
| Total cost                                            | 55,200 | 70,800   | 86,400 |
| Cost per unit                                         | Rs 46  | Rs 39.33 | Rs 36  |

The factory wants to quote value for 3,000 units, on which it wants to earn a profit of 50%. You are required to prepare a cost sheet to quote proper value.



**CHAPTER 2: RECONCILIATION OF COSTING PROFITS WITH FINANCIAL PROFITS**

**Q.1.** The profit disclosed by a company's Cost Accounts for the year 2004-05 was Rs.30,114 while the net profit shown by the Financial Accounts amounted to Rs.19,760. On reconciling the figures, the following differences are brought to light:

- 1) Overheads in the Cost Accounts were estimated at Rs.7,500. The charge for the year shown by the Financial Accounts was Rs.6,932.
- 2) Director's fees not charged in the Cost Accounts amounted to Rs.750.
- 3) The company has allocated Rs.600 to a general provision for bad debts.
- 4) Work was commenced during the year on a new factory and expenditure of Rs.12,000 was incurred. Depreciation of 5% was provided for in the Financial Accounts.
- 5) Transfer fees received amounted to Rs.28.
- 6) The amount charged for income tax Rs.9,000.

Prepare a statement reconciling the figures shown by the Cost and Financial Accounts.

**Q.2.** From the following information, you are required to prepare a statement reconciling the results of Cost Books with Financial Books:

| Particulars                                       | Rs.    |
|---------------------------------------------------|--------|
| Net profit as per financial books                 | 51,052 |
| Works overhead under-recovered in cost            | 1,001  |
| Depreciation charged in financial books           | 13,000 |
| Obsolescence loss charged in Financial Books only | 2,021  |
| Depreciation charged in Cost Books                | 14,326 |
| Interest received but not recorded in Cost Books  | 3,031  |
| Income Tax provided in Financial Books only       | 2,626  |
| Bank Interest debited in Financial Books only     | 292    |

**Q.3.** The Profit as per Cost Accounts is Rs.84,350. The following figures are found out on comparing Cost Account Books with Financial Account Books:

| Particulars                     | Cost accounts (Rs.) | Financial accounts (Rs.) |
|---------------------------------|---------------------|--------------------------|
| <b>(a) Opening Stock:</b>       |                     |                          |
| Materials                       | 15,800              | 16,300                   |
| Work-in-progress                | 9,000               | 10,000                   |
| <b>(b) Closing Stock:</b>       |                     |                          |
| Materials                       | 16,000              | 15,000                   |
| Work-in-progress                | 9,000               | 8,000                    |
| c) Dividend & interest received |                     | 500                      |
| d) Loss on sale of Motor car    |                     | 600                      |

- 1) Rs.2,000 interest charged not considered in Financial Accounts.
  - 2) Goodwill Rs.5,000 has been written off during the year.
  - 3) Overheads incurred Rs.56,500 but overheads recovered amounted to Rs.60,000.
- Find out profit as per Financial Accounts by preparing a reconciliation statement.

**Q.4.** From the following figures prepare a Reconciliation Statement:

| Particulars                                                     | Rs.           |
|-----------------------------------------------------------------|---------------|
| Net Loss as per Financial Records                               | 2,08,045      |
| Net Loss as per Costing Records                                 | 1,72,400      |
| Works Overhead under-recovered in Costing                       | 3,120         |
| Administrative Overhead recovered in excess                     | 1,700         |
| Depreciation charged in Financial Records                       | 11,200        |
| Depreciation recovered in Costing                               | 12,500        |
| Interest received not included in Costing                       | 8,000         |
| Obsolescence loss charged in Financial Records                  | 5,700         |
| Income - Tax provided in Financial Books                        | 40,300        |
| Bank interest credited in Financial Books                       | 750           |
| Stores Adjustments (Credit in Financial Books)                  | 475           |
| <u>Value of Opening Stock:</u>                                  |               |
| In Cost Accounts                                                | 52,600        |
| In Financial Accounts                                           | <u>54,000</u> |
|                                                                 | 1,06,600      |
| <u>Value of Closing Stock:</u>                                  |               |
| In Cost Accounts                                                | 52,000        |
| In Financial Accounts                                           | <u>49,600</u> |
|                                                                 | 1,01,600      |
| Interest charged in Cost Accounts but not in Financial Accounts | 6,000         |
| Preliminary Expenses written off in Financial Accounts          | 800           |
| Provision for doubtful debts in Financial Accounts              | 150           |

**Q.5.** From the following particulars prepare:

- Statement of Cost of Manufacture for the year 2004-05 showing the percentage which each individual item of cost bears to the total cost,
- A statement of profit as per Cost Accounts and
- Profit & Loss A/c in the Financial Books and show to what you would attribute the difference in the profit as shown by (b) and (c).

| Particulars                        | Rs.      | Particulars                           | Rs.    |
|------------------------------------|----------|---------------------------------------|--------|
| Opening Stock of Raw Materials     | 60,000   | Stock of Raw Materials at the end     | 90,000 |
| Opening Stock of Finished Articles | 1,20,000 | Stock of Finished Articles at the end | 30,000 |
| Purchase of Raw Materials          | 3,60,000 |                                       |        |
| Wages                              | 1,50,000 |                                       |        |

Calculate Factory on cost at 25% of Prime Cost & Office on Cost at 75% of Factory on cost. Actual works expenses amounted to Rs.1,16,250 and actual office expenses amounted to Rs.91,500. The selling price was fixed at a profit of 20% on the selling price.

**Q.6.** The following figures are extracted from the financial accounts of a Company for the year ending 31st March, 2001. In the Costing records, Factory overhead is charged a 100% of Wages and Administration overhead is charged at 10% of Factory Cost and Selling and Distribution at the rate of Rs.2 per unit sold. Prepare:(a) Financial Profit and Loss Account. (b) Costing Profit and Loss Account and (c) Statement reconciling the profit as per Cost records with the Profit as per Financial records. Following is the information as per financial records:

|                                            |          |
|--------------------------------------------|----------|
| Sales (2,000 units)                        | 5,00,000 |
| Materials                                  | 2,00,000 |
| Wages                                      | 1,20,000 |
| Factory overheads                          | 90,000   |
| Administration overheads                   | 52,000   |
| Selling and Distribution overheads         | 36,000   |
| Finished Goods as on 31-3-2001 (123 units) | 30,000   |
| Work in process as on 31-3-2001            | 36,630   |
| Goodwill Written off                       | 40,000   |
| Interest paid                              | 4,000    |
| Profit on Sale of Assets                   | 15,000   |

**Q.7.** Financial Profit and Loss Account for the year ended 31st March, 2005 is as follows:

| Particulars                        | Rs.      | Particulars | Rs       |
|------------------------------------|----------|-------------|----------|
| To Materials consumed              | 50,000   | By Sales    | 1,24,000 |
| To Carriage inwards                | 1,000    |             |          |
| To Direct Wages                    | 34,000   |             |          |
| To Works Expenses                  | 12,000   |             |          |
| To Administrative Expenses         | 4,500    |             |          |
| To Selling & Distribution Expenses | 6,500    |             |          |
| To Debenture Interest              | 1,000    |             |          |
| To Net Profit                      | 15,000   |             |          |
|                                    | 1,24,000 |             | 1,24,000 |

The Net Profit shown by the Cost Account for the year is Rs.16,270. Upon a detailed comparison of the 2 sets of accounts, it is found that:

(a) The amount charged in the Cost A/c in respect of overhead charges is as follows:

Works Overhead Charges Rs.11,500, Office Overhead Charges Rs.4,590, Selling and Distribution Expenses Rs.6,640.

(b) You are required to reconcile the profits as shown by the two sets of accounts.

**Q.8.** Modern Company Limited furnishes the summary of Trading and Profit and Loss Account for the year ended 31st March, 2005:

| Particulars                         | Rs.      | Particulars                   | Rs.      |
|-------------------------------------|----------|-------------------------------|----------|
| To Raw Materials                    | 1,39,600 | By Sales (12,000 units)       | 4,80,000 |
| To Direct Wages                     | 76,200   | By Finished Stock (200 Units) | 8,000    |
| To Production Overheads             | 42,600   | By Work in Progress:          |          |
| To Administration Overheads         | 39,100   | Materials                     | 28,200   |
| To Selling & Distribution Overheads | 42,700   | Wages                         | 11,796   |
| To Preliminary Expenses written off | 2,200    | Production overheads          | 7,999    |
| To Goodwill written off             | 2,501    | By interest on securities     | 6,000    |
| To Dividend (Net)                   | 3,000    | (Gross)                       |          |
| To Income Tax                       | 4,100    |                               |          |
| To Net Profit                       | 1,89,994 |                               |          |
|                                     | 541,995  |                               | 541,995  |

Company manufactures a Standard Unit. Scrutiny of Cost records for the same period shows:

- Factory Overheads have been allocated to the production at 20% on Prime Cost.
- Administration Overheads have been charged at Rs.3 per unit on units produced.
- Selling and Distribution expenses have been charged at Rs.4 per unit on units sold.

Prepare a Statement of Cost to work out profit as per Cost Accounts and reconcile the same with that shown in the Financial Accounts in Memorandum Reconciliation Account.

**Q.9.** The following is the summarised version of Trading and Profit and Loss Account of Continental Enterprises Limited for the year ended 31st March, 2005:

| Particulars                | Rs.             | Particulars                        | Rs.           |
|----------------------------|-----------------|------------------------------------|---------------|
| To Materials               | 48,000          | By Sales                           | 96,000        |
| To Wages                   | 36,000          | By Closing Stock of Finished Goods | 20,400        |
| To Works Expenses          | 24,000          | By Work – in – progress:           |               |
|                            |                 | Materials                          | 3,000         |
| To Gross Profit c/f        | 14,400          | Wages                              | 1,800         |
|                            |                 | Works Expenses                     | 1,200         |
|                            | <u>1,22,400</u> |                                    | <u>6,000</u>  |
| To Administrative Expenses | 6,000           | By Gross Profit b/f                | 14,400        |
| To Net Profit              | <u>8,400</u>    |                                    |               |
|                            | <u>14,400</u>   |                                    | <u>14,400</u> |

During the year, 6,000 units were manufactured and 4,800 of them were sold. The costing records show that works overheads have been estimated at Rs.3 per unit produced and administration overheads at Re.1.50 per unit produced. You are required to prepare statement of cost and profit and also a statement reconciling the profit as revealed by Financial Accounts and as by Cost Accounts.

**Q.10.** In a Factory two types of Radios are manufactured viz. 'Popular' and 'Delux' models. From the following particulars, prepare a statement showing cost per Radio and profit per Radio sold. There is no opening or closing stock.

|           | Popular | Deluxe   |
|-----------|---------|----------|
| Labour    | 46,800  | 62,920   |
| Materials | 81,900  | 1,08,680 |

Works overhead is charged @ 80% on Labour and Office overhead taken @ 15% on Works cost. 'Popular' Radios sold during the period are 235 at Rs.1,000 each and 'Delux' Radios sold are 286 at Rs.1,100 each. Ascertain the total profit as per Cost Books from the above particulars. If the works expenses are Rs.87,000 and office expenses Rs.58,000.

Find out the actual profit made and prepare a Reconciliation Statement to reconcile the cost profits with the profits disclosed by the Financial Books.

**Q.11.** A company manufacturing table fans supplies to you the following data and asks you to prepare a statement showing profit per table fan. Wages and Materials are charged at cost, Works Overheads at 80% of wages and office on cost at 20% of works cost. You are also required to prepare a statement reconciling the profit as shown by the Cost Accounts with the profit shown by Financial Accounts for the year-ended 31.3.05: Two types of table

fans are manufactured namely Model X and Model Z. There is no fan in the stock. Number of fans sold were X-1,500, Z-1,050

| Particulars           | Model X (Rs.) | Model Z (Rs.) |
|-----------------------|---------------|---------------|
| Materials per fan     | 100           | 80            |
| Wages per fan         | 80            | 60            |
| Selling price per fan | 300           | 250           |

Prepare the relevant statements showing the actual profits for the year if the works indirect expenses were Rs.82,000 and Office on cost Rs.75,000.

**Q.12.** A Factory turns out two products A & B. The cost of materials & labour is as follows:

|                      | A(Rs.) | B(Rs.) |
|----------------------|--------|--------|
| Materials (per unit) | 12.50  | 7.50   |
| Wages Direct         | 10.00  | 6.00   |

Works overheads are charged at 100% of wages and office overheads at 25% of works cost. 200 units of A and 500 units of B were produced and sold at Rs.50 and Rs.30 per unit respectively. There being no opening and closing stocks. If actually, the works expenses amounted to Rs.4,800 and office expenses to Rs.4,200 reconcile the results shown by cost accounts and financial accounts.

**Q.13.** The Financial Profit and Loss Account of Seema Manufacturing Company for the year ended 31st March, 2005, is given below:

| Particulars                        | Rs.              | Particulars              | Rs.              |
|------------------------------------|------------------|--------------------------|------------------|
| To <u>Opening Stock:</u>           |                  | By Sales                 | 9,20,000         |
| Raw Materials                      | 60,000           | By <u>Closing Stock:</u> |                  |
| Finished Stock                     | 80,000           | Raw Materials            | 60,000           |
| Work-in-progress                   | 35,000           | Finished Stock           | 30,000           |
| To Purchases                       | 2,40,000         | Work-in-progress         | 41,000           |
| To Factory Wages                   | 60,000           |                          |                  |
| To Factory Electric Power          | 66,000           |                          |                  |
| To Factory Overheads               | 90,000           |                          |                  |
| To Gross Profit c/d                | <u>4,20,000</u>  |                          |                  |
|                                    | <u>10,51,000</u> |                          | <u>10,51,000</u> |
| To Administration Expenses         | 25,000           | By Gross Profit b/f      | 4,20,000         |
| To Selling & distribution Expenses | 1,15,000         | By Miscellaneous Income  | 20,000           |
| To Bad debts                       | 30,000           |                          |                  |
| To Net Profit                      | <u>2,70,000</u>  |                          |                  |
|                                    | <u>4,40,000</u>  |                          | <u>4,40,000</u>  |

The Cost Accounts of the Company showed a profit of Rs.2,81,750. It is observed that the Costing Profit & Loss Accounts are prepared on the basis of figures furnished below:

Opening Stock:

|                  |        |
|------------------|--------|
| Raw Materials    | 80,000 |
| Finished Stock   | 60,000 |
| Work-in-progress | 40,000 |

Closing Stock:

|                                   |          |
|-----------------------------------|----------|
| Raw Materials                     | 70,000   |
| Finished Stock                    | 20,000   |
| Work-in-progress                  | 44,000   |
| Selling and Distribution Expenses | 1,27,000 |
| Administrative Expenses           | 18,000   |

A plant is purchased on 1st April, 2002 for Rs.80,000. Rate of Depreciation is 25% p.a. Financial Accounts charge depreciation according to straight line method & it is included in factory overheads of Rs.90,000, whereas Cost Accounts charge depreciation according to written down value method. Prepare a statement reconciling the differences in the Profit and Loss Accounts.

**Q.14.** Enthusiasts Ltd. commenced business on 1<sup>st</sup> April, 2006. Cost and Financial records are maintained for the year ended 31<sup>st</sup> March, 2007. From the following information prepare statements: (a) Showing the result as per costing records. (b) Showing result as per financial records and (c) Reconciling these results. **(October 1997 & April 2004)**

| Particulars                                          | As per costing Records            | As per Financial Records |
|------------------------------------------------------|-----------------------------------|--------------------------|
| Material consumed (20,000 Kgs.)                      | Rs. 28.50 per Kg.                 | Rs. 26 per Kg.           |
| Direct Wages (3000 man days)                         | Rs. 80 per man day                | Rs. 85 per man day       |
| Factory Overheads                                    | 20% of the Prime Cost             | Rs. 3,60,000             |
| Administrative Overheads                             | Rs. 30 per Kg. of output produced | Rs. 4,00,000             |
| Sales Overheads                                      | Rs. 50 per Kg. of output sold     | Rs. 9,60,000             |
| Stock (of output produced) as on 31-03-97 2,000 Kgs. | At cost of production             | Rs. 1,50,000             |
| Work in Progress as on 31-03-1997                    | Rs. 1,62,000                      | Rs. 1,62,000             |
| Sales (16,000 Kgs.)                                  | Rs. 130 per kg.                   | Rs. 129.50 per Kg.       |
| Rent Income                                          | -                                 | Rs. 1,20,000             |
| Preliminary expenses written off.                    | -                                 | Rs. 30,000               |

**Q.15.** From the following details of KT & Co. compute profit as per Profit and Loss Account as well as per Cost Sheet and reconcile profit between cost sheet and profit and loss account showing clearly the reasons for the variations of the two profit figures:

| Particulars                | Rs.    |
|----------------------------|--------|
| Sales                      | 20,000 |
| Purchase of materials      | 3,000  |
| Closing stock of materials | 500    |
| Direct wages               | 1,000  |
| Indirect wages             | 500    |
| Indirect Factory expenses  | 2,000  |
| Bad Debts                  | 100    |
| Interest on Overdraft      | 50     |
| Profit on sale of assets   | 1,000  |
| Selling expenses           | 2,000  |
| Distribution Expenses      | 1,000  |

In cost sheet manufacturing overheads are recovered at 300% of Direct wages. Selling overheads are recovered Rs.1,500 and distribution overheads recovered Rs.700.

(October 2003, 15 Marks)

**Q.16.** Profit & loss Account of M/s Tirupati Traders for the year ended 31<sup>st</sup> March 2009.

| Particulars                                  | Rs.      | Particulars                                  | Rs.       |
|----------------------------------------------|----------|----------------------------------------------|-----------|
| To Opening Stock<br>(Finished – 6,000 units) | 59,760   | By Sales (90,000 units)                      | 11,70,000 |
| To Raw Materials Consumed                    | 5,19,400 | By Closing Stock<br>(Finished – 4,500 units) | 52,776    |
| To Carriage Inwards                          | 5,100    | By Bank Interest                             | 410       |
| To Direct Wages                              | 72,872   | By Dividend                                  | 6,900     |
| To Salesmen Commission                       | 38,520   |                                              |           |
| To Office Salaries                           | 25,368   |                                              |           |
| To Motor Car Expenses                        | 18,384   |                                              |           |
| To Advertisement                             | 61,920   |                                              |           |
| <u>To Director's Remuneration:</u>           |          |                                              |           |
| Office                                       | 12,000   |                                              |           |
| Works                                        | 12,000   |                                              |           |
| Sales                                        | 14,400   |                                              |           |
|                                              | 38,400   |                                              |           |
| To Indirect Wages                            | 20,268   |                                              |           |
| To Plant Depreciation                        | 11,472   |                                              |           |
| To Workmen Compensation Reserve              | 13,275   |                                              |           |
| To Office Rent                               | 6,900    |                                              |           |
| To After Sales Service Expenses              | 4,476    |                                              |           |
| To Interest                                  | 6,000    |                                              |           |
| To Showroom Rent                             | 9,000    |                                              |           |
| To Carriage Outward                          | 6,240    |                                              |           |
| To Depreciation on Delivery Van              | 5,040    |                                              |           |
| To Factory Fuel                              | 4,248    |                                              |           |
| To Packing and Forwarding                    | 3,270    |                                              |           |
| To Miscellaneous Factory Expenses            | 3,270    |                                              |           |
| To Preliminary Expenses w/off                | 4,200    |                                              |           |
| To Audit Fees                                | 2,520    |                                              |           |
| To General Office Expenses                   | 1,500    |                                              |           |
| To Factory Rent                              | 18,720   |                                              |           |
| To Loss on Sales of Investments              | 4,017    |                                              |           |
| <u>To Insurance:</u>                         |          |                                              |           |
| Office                                       | 300      |                                              |           |
| Sales                                        | 720      |                                              |           |
| Factory                                      | 1,800    |                                              |           |
|                                              | 2,820    |                                              |           |
| To Printing and Stationery                   | 720      |                                              |           |
| <u>To Depreciation:</u>                      |          |                                              |           |
| Factory Furniture                            | 600      |                                              |           |
| Office Furniture                             | 900      |                                              |           |
| Showroom Furniture                           | 420      |                                              |           |
|                                              | 1,920    |                                              |           |

|                              |            |           |           |
|------------------------------|------------|-----------|-----------|
| <u>To Telephone Charges:</u> |            |           |           |
| Office                       | 129        |           |           |
| Sales                        | <u>627</u> | 756       |           |
| To Legal Fees                |            | 504       |           |
| To Net Profit c/d to B/s     |            | 2,59,226  |           |
|                              |            | 12,30,086 | 12,30,086 |

Closing Stock in Cost Accounts is valued at Cost of Production, However, Opening Stock in cost records in same as per financial records. Prepare: a) Detailed cost statement showing total cost and profit. (excluding per unit) (b) Reconciliation statement showing reconciliation of Profits. **(April 2008, 20 Marks)**

**Q.17.** The following figures have been extracted from the financial accounts of Bawa Manufacturing Company for the first year of its operation:

|                                    |             |
|------------------------------------|-------------|
| Direct Material Consumption        | 50,00,000   |
| Direct wages                       | 30,00,000   |
| Factory Overheads                  | 16,00,000   |
| Administrative Overheads           | 7,00,000    |
| Selling and Distribution Overheads | 9,60,000    |
| Provision for Bad Debts            | 80,000      |
| Preliminary Expenses written off   | 40,000      |
| Dividend Received                  | 1,00,000    |
| Interest Received on Deposits      | 20,000      |
| Sales (1,20,000 units)             | 1,20,00,000 |
| Closing Stock:                     |             |
| Finished Stock (4000 units)        | 3,20,000    |
| Work in Progress                   | 2,40,000    |

The cost accounts for the same period reveal that the Direct material consumption was Rs.56,00,000. Factory overheads are recovered @ 20% on Prime Cost. Administrative overheads are recovered at Rs.6 per unit of production. Selling and Distribution overheads are recovered at Rs.8 per unit sold. Prepare the profit and loss account as per financial records and cost sheet as per cost records. Reconcile the profits as per the two records. The cost accounts value closing stock of finished goods at cost of production.

**(October 2004, 20 Marks)**

**Q.18.** From the following particulars, prepare Reconciliation Statement and ascertain Costing Profit/Loss. Net Profit as per financial accounts is Rs.50,000. Opening stock was overvalued by Rs.2000 in costing as compared to financial accounting. Administrative overheads charged in financial books Rs.20,000 but recovered in Costing Rs.40,000. Income tax provision Rs.1,200 was provided in financial accounting. Notional salary of Proprietor in cost Rs.20,000. Interest received Rs.12,000. Closing stock as per financial books Rs.16,200. Whereas in cost books it was Rs.19,000. **(April 2005, 8 Marks)**

**Q.19.** Following is the trading and profit and loss account of M/s Vishal enterprises for the year ended 31.3.2006:

| Particulars                      | Rs.      | Particulars                         | Rs.      |
|----------------------------------|----------|-------------------------------------|----------|
| To Opening stock (500 units)     | 17,500   | By Sales (10250 units)              | 7,17,500 |
| To Materials                     | 2,60,000 | By Closing Stock (250 units)        | 12,500   |
| To wages                         | 1,50,000 |                                     |          |
| To factory overheads             | 94,750   |                                     |          |
| To Gross Profit                  | 2,07,750 |                                     |          |
|                                  | 7,30,000 |                                     | 7,30,000 |
| To Administrative Overheads      | 1,06,000 | By Gross Profit b/f                 | 2,07,750 |
| To Selling overheads             | 55,000   | By Dividend Received on investments | 10,250   |
| To loss on revaluation of assets | 9,000    |                                     |          |
| To Net Profit c/f                | 48,000   |                                     |          |
|                                  | 2,18,000 |                                     | 2,18,000 |

In Cost Accounts, materials charged @ Rs.25 per unit and wages @ Rs.15 per unit. Factory overheads taken @ 60% of wages. Administrative overheads applied @ 20% of works cost. Selling overheads taken @ Rs.6 per unit sold. You are required to prepare:

(1) Statement of cost showing total cost and cost per unit

(2) Statement of reconciliation of profit/loss.

**(October 2007, 20 Marks)**

**Q.20.** Following is the summarised trading and profit and loss account of sheetal industries for the year ended 31.3.2006:

| Particulars                   | Rs.      | Particulars                 | Rs.      |
|-------------------------------|----------|-----------------------------|----------|
| To Opening stock of R.M       | 9,000    | By Sales (12000 units)      | 4,80,000 |
| To Purchases of R.M.          | 2,10,000 | By Closing Stock:           |          |
| To Carriage Inwards           | 5,000    | Finished Goods (3000 units) | 66,000   |
| To Wages                      | 75,400   | Raw Materials               | 24,000   |
| To Factory Expenses           |          | By interest on securities   | 17,000   |
| Paid 52,400                   |          | By Profit on sale of assets | 1,20,000 |
| Outstanding 2,200             | 54,600   |                             |          |
| To Administration Overhead    | 52,500   |                             |          |
| To Selling & Distribution O/h | 96,000   |                             |          |
| To Goodwill w/off             | 12,500   |                             |          |
| To Interest on Loans          | 1,500    |                             |          |
| To Dividend                   | 2,500    |                             |          |
| To Income Tax                 | 5,000    |                             |          |
| To Net Profit                 | 1,83,000 |                             |          |
|                               | 7,07,000 |                             | 7,07,000 |

A standard unit was manufactured during the year. The cost accounting records showed the following: (a) Materials consumed @ Rs.10 per unit produced.

(b) Direct Wages @ Rs.6 per unit produced.

(b) Factory Overheads were absorbed @ 25% of Prime Cost.

(c) Administration Overheads were absorbed @ Rs.5 per unit produced

(d) Selling and Distribution Overheads were absorbed @ Rs.7 per unit sold.

You are required to prepare the detailed cost statement for the year ended 31.3.2006 and a statement of reconciliation.  
(October 2008, 15 Marks)

**Q.21.** From the following information find out profit or loss as per Cost Records:

| Particulars                                                        | Rs.      |
|--------------------------------------------------------------------|----------|
| Profit as Per Financial Records                                    | 1,45,000 |
| Over Absorption of Indirect Wages                                  | 12,000   |
| Over Valuation of Opening Stock of Finished goods in Cost Accounts | 5,000    |
| Excess of depreciation charged in financial accounts               | 3,500    |
| Under absorption of selling overheads                              | 7,500    |

(October 2010, 5 Marks)

**Q.22.** From the following details find out Profit and Loss as per Financial Accounts.

| Particulars                                                      | Rs.      |
|------------------------------------------------------------------|----------|
| Under absorption of factory overheads                            | 12,500   |
| Overvaluation of closing stock of Raw Materials in Cost Accounts | 8,600    |
| Profit as per cost accounts                                      | 2,70,000 |
| Depreciation Under Recovered in Cost Accounts                    | 3,700    |
| Over absorption of Administrative Overheads                      | 9,800    |

(April 2010, 5 Marks)

**CHAPTER 3: MATERIAL COST CONTROL**

**Q.1.** From the following particulars, prepare stores ledger by weighted average method.

| Date       | Particulars                       |
|------------|-----------------------------------|
| 04.01.2002 | Purchased 40 units at Rs.30 p.u   |
| 17.01.2002 | Purchased 60 units at Rs.28 p.u   |
| 20.01.2002 | Sale of 50 units                  |
| 22.01.2002 | Purchased 80 units at Rs.29 p.u.  |
| 25.01.2002 | Sale 80 units                     |
| 28.01.2002 | Sale 20 units                     |
| 30.01.2002 | Purchased 100 units at Rs.26 p.u. |
| 31.01.2002 | Sale 90 units.                    |

The stock on 01.01.2002 was 50 units valued at Rs.25 each.

**Q.2.** Following are the purchases and sales of sugar in the month of March, 2003. Prepare a statement showing issue prices and valuation of stock on the basis of 'FIFO' method and Weighted Average method.

| Date      | Purchases | Rate Per Kg. | Sales (Kgs.) |
|-----------|-----------|--------------|--------------|
| 1.3.2003  | 600       | 4            | ---          |
| 4.3.2003  | ---       | ---          | 300          |
| 5.3.2003  | 300       | 3.80         | ---          |
| 10.3.2003 | ---       | ---          | 200          |
| 18.3.2003 | 200       | 4.10         | ---          |
| 22.3.2003 | ---       | ---          | 500          |
| 30.3.2003 | 300       | 4.30         | ---          |
| 31.3.2003 | ----      | ----         | 200          |

**Q.3.** Find out value of stock on 30<sup>th</sup> June, 1999 for Final accounts under FIFO method:

| Date    | Purchases/Sales | Units | Price in Rs. per unit |
|---------|-----------------|-------|-----------------------|
| June 1  | Opening Stock   | 600   | 6                     |
| June 2  | Sales           | 250   | ---                   |
| June 5  | Purchases       | 900   | 5.75                  |
| June 10 | Sales           | 500   | ---                   |
| June 12 | Sales           | 150   | ---                   |
| June 18 | Purchases       | 550   | 6.50                  |
| June 21 | Sales           | 250   | ---                   |
| June 24 | Purchases       | 400   | 7.00                  |
| June 26 | Purchases       | 500   | 7.20                  |
| June 29 | Sales           | 700   | ---                   |

**Q.4.** Ashoka Limited has purchased and issued the materials in the following order:

| Month   | Date | Particulars | Units | Cost Per Unit |
|---------|------|-------------|-------|---------------|
| January | 1    | Purchases   | 300   | 3             |
| January | 4    | Purchases   | 600   | 4             |
| January | 6    | Issues      | 500   | ---           |
| January | 10   | Purchases   | 700   | 4             |
| January | 15   | Issues      | 800   | ---           |
| January | 20   | Purchases   | 300   | 5             |
| January | 23   | Issues      | 100   | ---           |

Ascertain the quantity of closing stock as on 31st January and state what will be the value under FIFO

**Q.5.** The stock on hand of a material as on 1.9.2002 was 500 units at Re.1 per unit. The following purchases and issues were subsequently made. Value stock under FIFO method.

| Date       | Purchases             | Date       | Issues    |
|------------|-----------------------|------------|-----------|
| 06.09.2002 | 100 units @ Re.1.10   | 09.9.2002  | 500 units |
| 20.09.2002 | 700 units @ Re.1.20   | 22.9.2002  | 500 units |
| 27.09.2002 | 400 units @ Re.1.30   | 30.9.2002  | 500 units |
| 13.10.2002 | 1,000 units @ Re.1.40 | 15.10.2002 | 500 units |
| 20.10.2002 | 500 units @ Re.1.50   | 22.10.2002 | 500 units |
| 17.11.2002 | 400 units @ Re.1.60   | 11.11.2002 | 500 units |

**Q.6.** The following particulars have been extracted in respect of material X. Prepare a stores ledger account on the basis of (a) Weighted Average and (b) FIFO Method

| Receipts   |               |                          |
|------------|---------------|--------------------------|
| 01.08.2004 | Opening Stock | 200 units @ Rs.3.50 each |
| 03.08.2004 | Purchases     | 300 units @ Rs.4.00 each |
| 13.08.2004 | Purchases     | 900 units @ Rs.4.30 each |
| 23.08.2004 | Purchases     | 600 units @ Rs.3.80 each |
| Issues     |               |                          |
| 05.08.2004 | Issued        | 400 units                |
| 15.08.2004 | Issued        | 600 units                |
| 25.08.2004 | Issued        | 600 units                |

**Q.7.** From the following details available, prepare Stores Ledger Account pricing the materials issued under FIFO & Weighted Average Method.

| Date      | Particulars         | Rate           |
|-----------|---------------------|----------------|
| 1/1/2003  | Balance 600 Kgs.    | @ Rs.4 per Kg. |
| 2/1/2003  | Received 200 Kgs.   | @ Rs.4 per Kg. |
| 5/1/2003  | Received 800 Kgs.   | @ Rs.5 per Kg. |
| 8/1/2003  | Received 400 Kgs.   | @ Rs.6 per Kg. |
| 9/1/2003  | Issued 1,000 Kgs.   |                |
| 10/1/2003 | Received 1,200 Kgs. | @ Rs.7 per Kg. |
| 11/1/2003 | Issued 400 Kgs.     |                |
| 14/1/2003 | Issued 1,200 Kgs.   |                |

**Q.8.** Given below are the particulars of purchases, sales and opening stock of Item A, Item B and Item C of Stock of M/s Girish Traders for the month ending 30/4/1999.

| Particulars              | A     |      | B     |      | C     |      |
|--------------------------|-------|------|-------|------|-------|------|
|                          | Units | Rate | Units | Rate | Units | Rate |
| Opening Stock            | 400   | 4    | 1200  | 6    | 1500  | 2    |
| <b><u>Purchases:</u></b> |       |      |       |      |       |      |
| Apr-05                   | 500   | 3    | 600   | 7    | 500   | 2.5  |
| Apr-20                   | 400   | 5    | 800   | 7.5  | 1000  | 3    |
| Apr-26                   | 300   | 5    | 500   | 8    | 400   | 2.5  |
| <b><u>Sales:</u></b>     |       |      |       |      |       |      |
| Apr-04                   | 200   |      | 600   |      | 800   |      |
| Apr-10                   | 400   |      | 1000  |      | 750   |      |
| Apr-18                   | 100   |      | 100   |      | 300   |      |
| Apr-25                   | 250   |      | 500   |      | 400   |      |
| Apr-29                   | 400   |      | 300   |      | 500   |      |

Value closing stock applying FIFO to A & B & Weighted Average to C.

**Q.9.** The stock on hand as on 1-8-2000 was 500 units @ Rs.100 per 100 units. Prepare necessary statement to calculate the value under Weighted average method if:

a) Perpetual Inventory System is followed b) Periodic Inventory system is followed.

| Purchase   |             |             | Issued     |             |
|------------|-------------|-------------|------------|-------------|
| Date       | Units       | Rate        | Date       | Units       |
| 06-08-2000 | 100 units   | @ 1.10 p.u. | 08-08-2000 | 500 units   |
| 20-08-2000 | 700 units   | @ 1.20 p.u. | 22-08-2000 | 400 units   |
| 27-08-2000 | 400 units   | @ 1.30 p.u. | 30-08-2000 | 250 units   |
| 13-09-2000 | 1,000 units | @ 1.40 p.u. | 15-09-2000 | 1,350 units |
| 20-09-2000 | 500 units   | @ 1.50 p.u. | 21-09-2000 | 600 units   |
| 22-09-2000 | 400 units   | @ 1.60 p.u. | 24-09-2000 | 200 units   |

**Q.10.** The following is the record of receipts & sales of certain goods during April, 2001:

| Date     | Receipts                                |
|----------|-----------------------------------------|
| 1.4.2001 | Opening Stock 500 units @ Rs.8 per unit |
| 2.4.2001 | Purchased 600 units @ Rs.10 per unit    |
| 4.4.2001 | Purchased 100 units @ Rs.10.20 per unit |
| 6.4.2001 | Purchased 200 units @ Rs.10.50 per unit |
| Date     | Sales                                   |
| 3.4.2001 | 300 units                               |
| 5.4.2001 | 400 units                               |
| 7.4.2001 | 400 units                               |

Stock verification on 3rd April revealed loss of 10 units. Show the cost of goods sold and the valuation of stock on 7th April,2001 under FIFO and Weighted Average methods.

**Q.11.** The stock on hand as on 1-8-2000 was 500 units @ Rs.100 per 100 units. Prepare necessary statement to calculate the value under Weighted average method if:

a) Perpetual Inventory System is followed b) Periodic Inventory system is followed.

| Purchase   |             |             | Issued     |             |
|------------|-------------|-------------|------------|-------------|
| Date       | Units       | Rate        | Date       | Units       |
| 06-08-2000 | 100 units   | @ 1.10 p.u. | 08-08-2000 | 500 units   |
| 20-08-2000 | 700 units   | @ 1.20 p.u. | 22-08-2000 | 400 units   |
| 27-08-2000 | 400 units   | @ 1.30 p.u. | 30-08-2000 | 250 units   |
| 13-09-2000 | 1,000 units | @ 1.40 p.u. | 15-09-2000 | 1,350 units |
| 20-09-2000 | 500 units   | @ 1.50 p.u. | 21-09-2000 | 600 units   |
| 22-09-2000 | 400 units   | @ 1.60 p.u. | 24-09-2000 | 200 units   |

**Q.12.** The following is the summary of the receipts and issue of materials in a factory during January:

January

- 1 Opening stock 500 units at Rs 25 per unit
- 2 Issued 100 units
- 3 Issued 70 units
- 9 Issued 80 units
- 13 Received from suppliers 200 units at Rs 24.50 per unit
- 14 Returned to stores 15 units at Rs 24 per unit
- 16 Issued 180 units
- 20 Received from suppliers 240 units at Rs 24.75 per unit
- 24 Issued 304 units
- 25 Received from suppliers 320 units at Rs 24.50 per unit
- 26 Issued 112 units
- 27 Returned to stores 12 units out of the issue date 16<sup>th</sup>
- 28 Received from suppliers 100 units Rs 25 per unit

You are required to prepare the stores ledger on the basis of FIFO. The physical verification revealed that on the 15, there was a shortage of five units and another on the 27<sup>th</sup> of 8 units.

### **MATERIAL COST (ON EOQ BASIS)**

**Ex.: 1** The following information in respect a component is extracted from the books of M/S perfect computers Ltd., Pune, for the year ending 31<sup>st</sup> March, 2014.

Maximum usage in a month : 600 Nos.

Minimum usage in a month : 400 Nos.

Normal usage in a month : 450 Nos.

Time lag in procurement of materials : Maximum 6 months, Minimum 2 months.

Recorder Quantity 1500 Nos.

You are required to calculate :

1. Recorder Level
2. Minimum Level
3. Maximum Level
4. Average Stock Level

**Ex.: 2** M/s Air Cool Services Ltd., Jalgaon manufactures of Air Coolers give the following information in respect of 2 components namely A & B used in the manufacturing process.

Normal usage : 200 units per week each  
 Maximum usage : 300 units per week each  
 Minimum usage : 100 units per week each  
 Recorder quantity : A : 1600 units. B : 2400 units  
 Recorder period for : A : 2 to 4 weeks. B : 1 to 2 weeks

Calculate for each component :

1. Recorder Level
2. Minimum Level
3. Maximum Level
4. Average Stock Level

**Ex.: 3:** Voltas Ltd., Mumbai manufactures of Air conditioner give the following information in respect of 2 components namely Copper & Aluminum used in the manufacturing process.

Normal usage : 500 units per week each  
 Maximum usage : 750 units per week each  
 Minimum usage : 250 units per week each  
 Re-order quantity : Copper : 3000 units, Aluminum : 5000 units  
 Re-order period for : Copper : 4 to 6 weeks, Aluminum : 2 to 4 weeks

Calculate for each component :

1. Recorder Level
2. Minimum Level
3. Maximum Level
4. Average Stock Level

**Ex.: 4** From the following information, calculate Economic Order Quantity by using Formula and Tabulation Method stated as follows :

|                            |         |
|----------------------------|---------|
| Annual requirement (units) | 6,400   |
| Ordering cost (per order)  | Rs. 100 |
| Inventory carrying costs   | Rs. 8.  |
| Per unit price             | Rs. 80  |

The delivery cost per order is Rs. 12.

The firm can procure inventories in various lots such as (i) 6400 units (ii) 3200 units (iii) 1600 units (iv) 800 units (v) 400 units (vi) 200 units and (vii) 100 units **(Nov 2014)**

**Ex.: 5** M/s Quantity Products Ltd., Nasik, is offered discounts on its order in the manner stated as follows :

| Price per Tonne | Order (in Tonnes)         |
|-----------------|---------------------------|
| Rs. 12.00       | Less than 500             |
| Rs. 11.80       | 500 but less than 1,600   |
| Rs. 11.60       | 1,600 but less than 4,000 |
| Rs. 11.40       | 4,000 but less than 8,000 |
| Rs. 11.20       | 8,000 and over            |

The annual demand for the material is 8,000 tonnes. Inventory carrying costs are 20% of material cost per annum. The delivery cost per order is Rs. 12.

Calculate the Best Quantity Order for M/s Quantity Products Ltd.

**Ex. 6:** Calculate Economic Order Quantity from the following :

1. Quantity 60,000 units
2. Ordering cost Rs. 1,200 per order.
3. Carrying Cost 20%
4. Price per units Rs. 2,000.

**Ex. 7:** From the following particulars, calculate the Economic Order Quantity (EOQ).

1. Annual requirements = 1,600 units.
2. Cost of placing and receiving per purchase order = Rs. 50.
3. Annual carrying cost of Inventory = 10% of Inventory value.

**Ex. 8:** From the following information, calculate Economic Order Quantity and number of orders to be placed each year.

- Annual Consumption of Material : 4,000 kg  
Cost of buying per order : Rs. 5  
Cost per unit : Rs. 2  
Storage and carrying cost : 8% of Inventory value

**Ex. 9:** A Factory requires 20,000 kgs of certain materials for the year. Cost of carrying one kg. of material is calculated to be Rs. 20 per annum, and it is estimated that expenses of placing an order and receiving would amount to Rs. 500  
Calculate EOQ and number of orders to be placed each year.

**Ex.10:** A Manufacturer buys certain equipment from outside suppliers at Rs. 30 per unit. Total Annual needs are 1,600 units.

- The following further data are available :  
Annual return on investment 10%  
Rent, Insurance, tax, per year, Rs. 1.  
Cost of placing an order Rs. 50.  
Determine the Economic Order Quantity.

**Ex. 11:** Given the annual consumption of material is 1,800 units, ordering costs are Rs. 2 per order, price per unit of material is 32 paise and storage costs are 25% per annum of stock value, find the Economic order Quantity.

**Ex. 12:** Calculate the EOQ from the following information. Also state the number of orders to be placed in a year.

- Consumption of material p.a. 10,000 kg. Order placing cost per order Rs. 50.  
Storage cost 8% on average inventory. Cost per kg. of Raw materials Rs. 2

**Ex.13 :** Determine the EOQ from the following particulars.

- Annual consumption : 675 units  
Cost of material : Rs. 30 per unit  
Cost of placing an order : Rs. 18  
Annual carrying cost of one unit : 10% of Inventory value

**Ex. 14:** Find the Economic Order Quantity from the following information.

Annual Demand : 20,000 units  
Cost per article : Rs. 1  
Inventory carrying cost : 15%  
Cost per order : Rs. 15

**Ex. 15:** Find out the EOQ and order schedule for raw material and packaging materials with the following data given to you.

1. Cost of ordering : Raw materials Rs. 1,000 per order, Packaging materials Rs. 5,000 per order.
2. Cost of holding inventory : Raw material 1 ps. Per unit p.m. packaging materials 5 ps. Per unit p.m.
3. Production rate : 2,00,000 units per month.

**Ex. 16:** Find out E.O.Q from the following information :

Annual usage : 6000 units  
Cost of placing and receiving one order : Rs. 60  
Annual carrying cost of one unit : 10% of Inventory value

**Ex. 17:** M/s Sandhu Brothers Dhulia supplies you the following information.

Annual Consumption : 15,000 kg.  
Cost of placing an order : Rs. 48  
Cost of raw materials : Rs. 2 per kg.  
Strong cost : 8% of Average Inventory  
You are required to ascertain Economic Order Quantity.

**Ex. 18:** A company uses 10,000 units per year of an item costing Rs. 5 each. The cost of processing a purchase order is Rs. 100 and the stock holding cost amounts to 20% per year of the money value of inventory. Calculate Economic Order Quantity.

**Ex. 19 :** A Manufacture buys certain essential spares from outside suppliers at Rs. 40 per set. Total annual requirement are 45,000 sets. The annual cost of investment in inventory is 10 % and cost like rent, stationery, insurance, taxes etc. per unit per year work out to Rs. 1  
Cost of placing an order is Rs. 5.

Calculate : (1) The EOQ ( by formula)      (2) No. of Orders to be placed. **( Nov. 2014)**

**Ex. 20 :** M/s Reliance Industries Ltd., Dhulia supplies you the following information :

Consumption of materials per annum : 15,000 kg.  
Cost of placing an order : Rs. 48  
Cost of Raw materials : Rs. 2 per kg  
Storage cost is 8% of average inventory

You are required to ascertain the economic order quantity and also stage the number of orders to be placed in the year.

**Q.21.** X Ltd requires 36,000 units per annum. The purchase price per unit is Rs 10 and the cost of placing an order with the supplier is Rs 100. The firm finances its working capital

with bank overdraft at 15% per annum. Find the quantity that the firm should buy every time to minimize the inventory associated cost. Also find the relevant inventory cost.

**Q.22.** X Ltd requires 2,500 units of Y per month. The cost per order is Rs 150 and each unit costs Rs 200. The cost of capital is 18% per annum. You are required to calculate EOQ

**Q.23.** About 50 items are required every day for a machine. A fixed cost of Rs 50 per order is incurred for placing an order. The inventory carrying cost per item amounts to Rs 0.02 per day. The lead period is 32 days.  
Compute: (1) Economic Order Quantity.

**Q.24.** G Ltd produces a product which has a monthly demand of 4,000 units. The product requires a component X which is purchased at Rs 20. For every finished product, one unit of component is required. The ordering cost is Rs 120 per order and the holding cost is 10% p.a. You are required to calculate:

(i) Economic order quantity

(ii) If the minimum lot size to be supplied is 4,000 units, what is the extra cost, the company has to incur?

**Q.25.** The complete Gardener is deciding on the economic order quantity for two brands of lawn fertilizer: Super grow and Nature's Own. The following information is collected:

|                                           | Super Grow | Nature's Own |
|-------------------------------------------|------------|--------------|
| Annual Demand                             | 2,000 bags | 1,280 bags   |
| Relevant ordering cost per purchase order | Rs 1,200   | Rs 1,400     |
| Annual relevant carrying cost per bag     | Rs 480     | Rs 560       |

(i) Compute EOQ for Super Grow and Nature's Own

(ii) For the EOQ, what is the sum of the total annual relevant ordering costs and total annual relevant carrying costs for Super Grow and Nature's Own?

(iii) For the EOQ, Compute the number of deliveries per year for Super Grow and Nature's Own.

**Q.26.** A company manufactures a product from a raw material, which is purchased at Rs 60 per kg. The company incurs a handling cost of Rs 360 plus freight of Rs 390 per order. The incremental carrying cost of inventory of raw material is Re. 0.50 per kg per month. In addition, the cost of working capital finance on the investment in inventory of raw material is Rs 9 per kg. per annum. The annual production of the product is 1,00,000 units and 2.5 units are obtained from one kg. of raw material.

(i) Calculate the economic order quantity of raw materials.

**Q.27.** PQR Ltd produces a product which has a monthly demand of 52,000 units. The product requires a component X which is purchased at Rs 15 per unit. For every finished product, 2 units of component X are required. The ordering cost is Rs 350 per order and the carrying cost is 12% p.a.

(i) Calculate the economic order quantity for Component X

(ii) If the minimum lot size to be supplied is 52,000 units. Calculate the extra cost.

(iii) Minimum carrying cost, the company has to incur?

**CHAPTER 4: LABOUR COST CONTROL**

**Q. 1.** The following information relates to a week ending 31<sup>st</sup> March, 2017 for two workers viz. Abhiman and Tapasya:

|                               | Abhay  | Tapasya |
|-------------------------------|--------|---------|
| Hours worked                  | 48     | 54      |
| Daily working hours           | 8      | 8       |
| No. of working days in a week | 6      | 6       |
| Flat time rate per hour       | Rs. 10 |         |
| Overtime rate per hour        | Rs. 20 |         |

Calculate the wages of the two workers for the week.

**Q.2.** from the following information calculate the earning of Mr. Sachin and Mr. Nitin for the month of January, 2016. The wages are paid on the basis of straight piece rate method.

Output during the month:

Mr. Sachin : 1,200 Units.

Mr. Nitin : 1,150 Units.

Straight piece rate Rs. 3 per unit.

**Q. 3.** Calculate the wages of Mr. Karthik for the month of January 2017 in the following cases:

1. He is paid Rs. 5 per unit on the basis of actual units produced by him or Rs. 4,500 per month whichever is higher.
  - (a) If his production during the month is 1,200 units.
  - (b) If his production during the month is 800 units.
2. He is paid guaranteed wages according to time rate which is Rs. 3,000 p.m. plus Rs. 3 per unit piece rate for units produced above the required minimum output of Rs. 20,000. His actual production during the month is 22,000 units.
3. He is paid Rs. 5 per unit plus fixed dearness allowances of Rs. 500 per month. He has produced 1,200 units during the month.

**Q. 4.** During one week of workman, X manufactured 200 articles. He received wages for guaranteed 44 hours week at the rate of Rs. 1.50 per hour. The estimated time to produced one article is 15 minutes and under incentive scheme the time allowed is increased by 20%.

Calculate his gross wages his under each of the following methods of remunerations:

1. Time rate.
2. Piece work with a guaranteed weekly wages.
3. Rowan premium bonus.
4. Halsey premium bonus, 50% to workman.

**Q.5.** In an engineering company, standard time set for a job is 20 hours and the wage rate is Rs.4 per hour. The worker is to get his normal rate for hours worked and half the normal rate for hours saved. Material required for the job costs Rs.88 and the work overheads are charged on the basis of Rs.6 per labour hour.

Calculate the wages and effective rate of earning per hour if the job is completed in (1) 16 hours and (2) 12 hours. Also calculate the job cost in both the cases.

**Q.6.** In the engineering concern, the standard time allowed to manufacture an article is fixed at 10 hours and the wage rate is Rs.20 per hour. An operator completes 10 articles in 80 hours.

Calculate his total wages under:

1. Halsey premium plan.
2. Rowan premium plan.

Also calculate cost if material cost of the article is Rs.240 and the factory overheads are 400% of direct wages.

**Q.7.** Engineers India ltd. has fixed the standard time to produce one unit of product X at 20 hours. Standard wages rate fixed is Rs.25 per hour .A worker produces 20 units of product X in 260 hours.

Calculate his total wages under Halsay premium plan and Rowan premium plan.

Also calculate work cost under both the plans if direct materials cost of one unit of product X is Rs.2400 and a factory overheads are 250% of prime cost.

**Q.8.** Calculate the total earning of two workers under Halsey premium plan and Rowan premium plan from the following particulars.

Standard time allowed: 50 hours

Rate of wages: Rs. 1 per hour

Actual time taken: Workers A-45 hours. Workers B-30 hours.

**Q.9.** A worker takes 9 hours to complete a job on daily wages and 6 hours on a scheme of payments by results. His day rate is 75 paise an hour the material cost of the product is Rs.4 and the overheads are recovered at 150% of the total direct wages .Calculate the factory cost of the products under Piece work plan, Rowan plan and Halsey plan.

**Q.10.** Calculate the total earnings and effective rate of earning per hours of the two operators, Gopal and Hassan under Halsey plan and Rowan plan.

The standards time fixed for producing 100 articles is 50 hours.

The rate of wages is Rs.1.50 per hour.

The actual time taken for producing 100 articles is as under:

Gopal : 42 hours Hassan: 38 hours.

**Q.11.** Following are the particular for April 2015 relating to four employees working in department M of a factory exclusively for job no.120.

| Name of Employee | Wages ( Rs) | Per   |
|------------------|-------------|-------|
| A                | 10,000      | Month |
| B                | 150         | Day   |
| C                | 120         | Day   |
| D                | 100         | Day   |

The normal working hours per week of six day are 48 or 8 hours per day. Sundays are paid holidays. (There were no other holidays during the month)

Provident fund contribution was 8% of monthly wages by Employee.

Provident contribution was 8% of monthly wages by Employer.

Employees state insurance contributions was 3% of monthly wages by employee and 5% of monthly wages by employer.

From the following data, calculate:

- Net wages payable by the employer for the month.
- The total amount of provident fund contribution to be deposited by employer.
- Employees state Insurance contribution to be deposited by employer.
- Total labor cost to the employer for the month of april , chargeable to the job and
- The total cost of the job requiring materials is valued at Rs. 60,000 and overheads at 50% of prime cost.

**Q. 12** From the following information ,you are required to prepare calculate net wage bill and labour cost

|                                                |            |
|------------------------------------------------|------------|
| Gross earning of the workers as per time cards | Rs. 30,000 |
| Employees contribution to PF                   | Rs. 2,500  |
| Employees contribution to ESI                  | Rs.400     |
| Advance against wages                          | Rs.800     |
| Cooperative dues                               | Rs.600     |
| Income tax                                     | Rs.500     |
| Canteen charges                                | Rs.100     |

Company contribution to PF and ESI are Rs 2,500 and Rs 800 respectively.

**Q.13** The standard time fixed for a job is 40 hours and the wage rate is Rs 40 per hour .The worker is to get his normal rate for hours worked and half the normal rate for hours saved material required for the job cost Rs 800 and the works overhead are charged on the basis of Rs 60 per labour hour.

Calculate the wages and effective rate of earning of earning per hour if the job is completed in 32 hours and 24 hours.

Also calculate the job cost in both the cases.

**Q.14** 'A' an employee of XYZ co. Gets the following emoluments and benefits:

|                                           |                      |
|-------------------------------------------|----------------------|
| 1.Salary basic                            | Rs 25,000 per month  |
| 2.Dearness Allowances                     | 100% of basic        |
| 3.Employers contribution to provided fund | 12% of basic & D.A   |
| 4.E.S.I                                   | 4.75% of basic & D.A |
| 5.Bonus                                   | 20% of salary & D.A  |
| 6.Other Allowances                        | Rs 27,250 per annum  |

A works for 2,400 hours per annum out of which 400 hours are non-productive but treated.

A worked for 18 effective hours on job no. 13, where the cost of direct material equal A's earnings applied is 100% of prime cost. The sale value of the job is quoted to earn a profit of 10% on such sales.

You are required to find out :(1) Effective Hourly of 'A' and (2) The expected sale value of job no.13.

**Q.15** From the following particulars, find over cash required for payment of wages in a factory for April 2015.

|                               |           |
|-------------------------------|-----------|
| Wages for normal hours worked | Rs 20,500 |
| Wages for overtime            | Rs 2,200  |

|                                                                      |          |
|----------------------------------------------------------------------|----------|
| Leave wages                                                          | Rs 1,700 |
| Employees contribution to :                                          |          |
| PF                                                                   | Rs 1,700 |
| ESI                                                                  | Rs 500   |
| House rent to be recovered from 3 employees<br>@ Rs. 1,000 per month | Rs 3,000 |

**Q.16** Calculate normal and overtime wages payable to a workman:

| Days       | Mon | Tues | Wed | Thurs | Fri | Sat | Total |
|------------|-----|------|-----|-------|-----|-----|-------|
| Hrs Worked | 7   | 8    | 10  | 9     | 8   | 5   | =47   |

Normal working hours 7 hrs per day

Normal wage rate Rs 10 per hr

Over time wage rate upto 8 hrs in a day at single rate and over 8 hrs in a day at double rate.

OR

Upto 42 hrs in a week at single rate and over 42 hrs at double rate whichever is more Beneficial to the workman.

**Q.17** Calculate the earning of sanjay and sangeeta from the following particulars for the month of April,2015 and allocate the labour cost of each job X,Y and Z.

|                                 | sanjay | Sangeeta |
|---------------------------------|--------|----------|
| Basic wages                     | 10,000 | 16,000   |
| D.A                             | 100%   | 100%     |
| Contribution to P.F ( On basic) | 12%    | 12%      |
| Contribution to ESI (On basic)  | 1.75%  | 1.75%    |
| Over time                       | 10 hrs |          |

The normal working hours for the month are 200. Overtime is paid at double the total of normal wages and D.A

Employers contribution to P.F is 12% and to E.S.I 4.75%.

The two workers were employed on jobs X.Y and Z in the following proportion:

|          | X   | Y   | Z   |
|----------|-----|-----|-----|
| Sanjay   | 40% | 30% | 30% |
| Sangeeta | 50% | 20% | 30% |

Overtime was done job Y.

**Q.18.** On the basis of the following information, calculate the earnings of ganesh and dinesh on the straight piece rate basis and Taylors Differential piece rate system.

Standard production : 8 units per system

Normal time rate: Rs.4 per hour

Differential to be applied : 80% of piece rate below Standard.

120% of piece rate at or Above standard.

In a 9 hour day ,Ganesh produces 54 units and dinesh produces produces 75 units.

**Q.19** Using Taylors differential piece rate plan find the earnings of A from the following:  
Standard time per piece 12 minutes, normal rate per hour (8 hours a day) Rs.20.A  
produced 37 units.

**Q.20.** Calculate earnings of workers Nilesh and Nilu under Taylor's differential piece rate plan from the following particulars:

Standard time : one hour 100 units

Normal rate : Rs 10 per hour

Differential piece rate :

1. 80% of piece rate below standard.
2. 120% of piece rate at or above standard.

In a day of 8 hours Nilesh produced 750 units and Nilu produced 950 units.

**Q.21.** From the following particulars calculate the earning of X and Y on the straight piece rate basis and Taylor's differential piece rate plan. Standard production 8 units per hour, normal time rate Rs. 40 per hour.

Differential to be applied:

1. 80% of piece rate below standard.
2. 120% of piece rate at or above standard.

In a 9 hour day X produced 50 units and Y produced 70 units.

**Q.22.** From the following particulars calculate earning of X and Y who paid wages under Merrick's differential plan. Normal piece rate (upto 83% of high task output) Rs 10 per unit. High task rate = 40 units per week.

Output of the workers per week.

X 32 Units

Y 42 Units

**Q.23** Calculate earning of workers A, B and C under straight piece rate system and Merrick's multiple price rate system from the following particulars:

Normal rate per hour Rs. 5.40

Standard Time per unit 1 minute

Output per day is as follows:

A 390 units

B 450 units

C 600 units

Working hours per day 8 hours.

**Q.24.**

Standard output 120 units

Time rate Rs. 5 per hour

Normal piece rate Rs. 50 per units

Production details of different workers is given below:

X 100 units

Y 120 units

Z 140 units

Guaranteed day wages Rs. 40.

Calculate earnings of 3 workers under Gantt's task bonus plan.

**Q.25.** From the following particulars you are required to work out the earnings of a worker for a week under :

1. Straight piece rate
2. Differential piece rate
3. Halsey premium scheme ( 50% sharing )
4. Rowan premium scheme

Weekly working hours : 48

Hourly wage rate : Rs. 7.50

Piece rate per unit : Rs.3.00

Normal time taken per piece : 20 minutes

Normal output per week : 120 pieces

Actual output for the week : 150 pieces

Differential piece rate 80% of piece rate when output below normal and 120% of piece rate when output above normal.

**Q.26.** From the following particulars workout earnings for the week of a worker under :

1. Straight piece rate system.
2. Differential piece rate system.
3. Halsey premium system.
4. Rowan system .

Number of Working per week : 48

Wages per hour : Rs. 3.75

Rate per piece : Rs. 1.50

Normal Time per piece : 20 minutes

Normal output per week : 120 pieces

Actual output for the week : 150 pieces

Differential piece rate : 80% of piece rate when output is below standard and 120% when above standard.

**Q.27** From the following information calculate the earnings of a worker under time rate method, piece rate method, Halsey plan and Rowan plan.

Information given :

Standard time : 30 hours

Time taken : 20 hours. Hourly rate of wages is Rs. 1 per hour plus a dearness allowance @ 50 paise per hour work.

**Q.28.** Compute the earning of a worker under time rate method, piece rate method, Halsey plan and Rowan plan.

Information given :

Wages rate : Rs.2 per hour.

Dearness allowance : Rs. 1 per hour.

Standard hours : 80.

Actual hours : 50.ss

**CHAPTER 5: OVERHEADS COSTING**

**Q.1.** The modern company is having four departments A, B & C are the producing departments and D is a servicing department.

The actual cost for a period are as follows:

|                      | Rs.   |
|----------------------|-------|
| Rent                 | 2,000 |
| Repairs              | 1,200 |
| Depreciation         | 900   |
| Light                | 200   |
| Supervision          | 3,000 |
| Insurance            | 1,000 |
| Employee's Insurance | 300   |
| Power                | 2,400 |

The following data are also available in respect of our departments

|                   | Dept. A    | Dept. B    | Dept. C    | Dept. D   |
|-------------------|------------|------------|------------|-----------|
| Area in sq. feet  | 150        | 110        | 90         | 50        |
| Number of workers | 24         | 16         | 12         | 8         |
| Total wages       | Rs. 8,000  | Rs. 6,000  | Rs. 4,000  | Rs. 2,000 |
| Value of plant    | Rs. 24,000 | Rs. 18,000 | Rs. 12,000 | Rs. 2,000 |
| Value of stock    | Rs. 15,000 | Rs. 9,000  | Rs. 6,000  | Rs. ----  |

Apportion the costs to various departments on the equitable basis.

**Q. 2 :** A factory has 3 departments (P1,P2,P3) and 2 service departments (S1 & S2). The following overheads and other information are extracted from the books for the month of January 2014.

| Expense                  | Amount Rs |
|--------------------------|-----------|
| Rent                     | 6000      |
| Repair                   | 3600      |
| Depreciation             | 2700      |
| Lighting                 | 600       |
| Supervision              | 9000      |
| Fire Insurance for stock | 3000      |
| ESI contribution         | 900       |
| Power                    | 5400      |

| Particular           | P1    | P2    | P3    | S1   | S2   |
|----------------------|-------|-------|-------|------|------|
| Area sq.ft.          | 400   | 300   | 270   | 150  | 80   |
| No. of workers       | 54    | 48    | 36    | 24   | 18   |
| Wages                | 18000 | 15000 | 12000 | 9000 | 6000 |
| Value of plant       | 72000 | 54000 | 48000 | 6000 | -    |
| Stock value          | 45000 | 27000 | 18000 | -    | -    |
| Horse power of plant | 600   | 400   | 300   | 150  | 50   |

Allocate or apportion the overhead among the various departments on suitable basis.

**Q. 3.** The following information is supplied from the costing record of a company:

| Particular                      | Rs   |
|---------------------------------|------|
| Rent                            | 2000 |
| Maintenance                     | 1200 |
| Depreciation                    | 900  |
| Lighting                        | 200  |
| Insurance (Stock)               | 1000 |
| Employer's contribution to P.F. | 300  |
| Energy                          | 1800 |
| Supervision                     | 3000 |

| Particulars            | A     | B     | C     | D    |
|------------------------|-------|-------|-------|------|
| Floor space (sq.ft.)   | 150   | 110   | 90    | 50   |
| Number of workers      | 24    | 16    | 12    | 8    |
| Total direct wages(Rs) | 8000  | 6000  | 4000  | 2000 |
| Cost of machinery(Rs)  | 24000 | 18000 | 12000 | 6000 |
| Stock of goods(Rs)     | 15000 | 9000  | 6000  | -    |

Prepare a statement showing apportionment of costs to value departments.

**Q. 4:** The Modern Company is divided into four departments : A, B and C are production departments and D is a service department. The actual costs for a period are as follow:

| Particulars                    | Rs    |
|--------------------------------|-------|
| Rent                           | 10000 |
| Repairs to plant               | 6000  |
| Depreciation of plant          | 4500  |
| Supervision                    | 15000 |
| Fire Insurance (Stock)         | 5000  |
| Power                          | 9000  |
| Light                          | 1000  |
| Employer's Insurance Liability | 1500  |

The following information are available in respect of the departments:

| Particular             | A        | B        | C        | D     |
|------------------------|----------|----------|----------|-------|
| Area (sq. Ft.)         | 1500     | 1100     | 900      | 500   |
| Number of employees    | 20       | 15       | 10       | 15    |
| Horsepower of machines | 800      | 500      | 200      | -     |
| Total wages (Rs)       | 60000    | 40000    | 30000    | 20000 |
| Value of plant(Rs)     | 2,40,000 | 1,80,000 | 1,20,000 | 60000 |
| Value of stock(Rs)     | 1,50,000 | 90,000   | 60,000   | -     |
| Light Point (Nos.)     | 40       | 30       | 20       | 10    |

Apportion the costs of the various departments by the most equitable method.

**Q. 5** MM Ltd. has three production departments X, Y, Z and two service departments S and C. The following details are extracted from the books of accounts in respect of indirect expenses incurred during April 2014:

| Particulars           | Amount (Rs)   |
|-----------------------|---------------|
| <b>Indirect Cost:</b> |               |
| Indirect Wages        | 9000          |
| Lighting              | 1200          |
| Rent and Rates        | 12000         |
| Electric Power        | 6000          |
| Depreciation          | 24000         |
| Sundry Expenses       | 7800          |
|                       | <b>60,000</b> |

Following further details are collected for distribution of the above costs:

| Particulars                   | X    | Y    | Z     | S   | C  |
|-------------------------------|------|------|-------|-----|----|
| Value of machinery(in Rs 000) | 60   | 50   | 80    | 10  | -  |
| Horse power of machinery      | 40   | 45   | 60    | 5   | -  |
| Light points (Nos.)           | 20   | 30   | 40    | 20  | 10 |
| Floor space (sq.metres)       | 150  | 200  | 250   | 100 | 50 |
| Direct wages (in Rs 000)      | 30   | 20   | 40    | 4   | 6  |
| Machine hours worked          | 4250 | 3380 | 71200 | -   | -  |

Prepare Primary Overhead Distribution Summary.

**Q. 6.** The following account balances and distribution of indirect charges are taken from the accounts of a manufacturing concern for the year ending on 31<sup>st</sup> march, 2014:

| Items                   | Total Rs | X Rs   | Y Rs   | Z Rs   | A Rs   | B Rs  |
|-------------------------|----------|--------|--------|--------|--------|-------|
| Indirect Material       | 1,25,000 | 20,000 | 30,000 | 45,000 | 25,000 | 5000  |
| Indirect Labour         | 2,60,000 | 45000  | 50000  | 70000  | 60000  | 35000 |
| Superintendent's salary | 96,000   | -      | -      | 96,000 | -      | -     |
| Fuel and Heat           | 15,000   | -      | -      | -      | -      | -     |
| Power                   | 1,80,000 | -      | -      | -      | -      | -     |
| Rent and Rates          | 1,50,000 | -      | -      | -      | -      | -     |
| Insurance               | 18000    | -      | -      | -      | -      | -     |
| Meal Charges            | 60,000   | -      | -      | -      | -      | -     |
| Depreciation            | 2,70,000 | -      | -      | -      | -      | -     |

The following departmental data are also available:

| Particulars                  | X        | Y        | Z        | A        | B        |
|------------------------------|----------|----------|----------|----------|----------|
| Area (sq.ft.)                | 4,400    | 4000     | 3000     | 2400     | 1200     |
| Capital value of Assets (Rs) | 4,00,000 | 6,00,000 | 5,00,000 | 1,00,000 | 2,00,000 |
| Kilowatt Hours               | 3,500    | 4000     | 3000     | 1500     | -        |
| Radiator Sections            | 20       | 40       | 60       | 50       | 30       |
| No . of Employees            | 60       | 70       | 120      | 30       | 20       |

Prepare a Statements of Primary Distribution of Overhead.

Q. 7. The following cost information for a period is available for a small engineering unit:

(a) Allocated expenditure

|                      | Total Rs | Machine Shop | Assembly | General Plant Services | Stores |
|----------------------|----------|--------------|----------|------------------------|--------|
| Indirect Wages       | 29,300   | 8000         | 6000     | 4000                   | 11,300 |
| Stores consumed      | 6,700    | 2,200        | 1,700    | 1,100                  | 1700   |
| Supervisory Salaries | 14,000   | -            | -        | 14,000                 | -      |
| Other Salaries       | 10,000   | -            | -        | 10,000                 | -      |

(b) Expenditure to be apportioned

|              |          |
|--------------|----------|
| Power Shop   | 15,000   |
| Rent         | 15,000   |
| Insurance    | 3,000    |
| Depreciation | 1,00,000 |

(c) Additional information available

|               | Floor Area (sq.ft) | H.P. hrs. | No. Of Employees | Investment(Rs) |
|---------------|--------------------|-----------|------------------|----------------|
| Machine Shop  | 2000               | 3,500     | 30               | 6,40,000       |
| Assembly      | 1000               | 500       | 15               | 2,00,000       |
| General Plant | 500                | -         | 5                | 10,000         |
| Stores        | 1,500              | 1000      | 10               | 1,50,000       |

You are required to prepare an overhead primary distribution statement in detail.

Q. 8. The Modern Company has four departments. A, B and C are the production departments and D is a servicing departments. The actual costs for a period are as follows:

| Particulars                                | Rs(000) |
|--------------------------------------------|---------|
| <b>Indirect Materials</b>                  |         |
| Production Department: A                   | 950     |
| B                                          | 1,200   |
| C                                          | 200     |
| Servicing Department: D                    | 1,500   |
| <b>Indirect Wages</b>                      |         |
| Production Department: A                   | 900     |
| B                                          | 1,100   |
| C                                          | 300     |
| Servicing Department: D                    | 1000    |
| Rent                                       | 2000    |
| Repairs                                    | 1200    |
| Depreciation                               | 900     |
| Light                                      | 200     |
| Supervision                                | 3000    |
| Insurance                                  | 1000    |
| Employee's Insurance(Employer's Liability) | 300     |
| Power                                      | 1800    |

The following data are also available in respect of four departments:

| Particulars          | A Rs  | B Rs  | C Rs  | D Rs |
|----------------------|-------|-------|-------|------|
| Area (sq.ft.)        | 150   | 110   | 90    | 50   |
| No. Of workers(Nos.) | 24    | 16    | 12    | 8    |
| Total wages          | 8000  | 6000  | 4000  | 2000 |
| Value of plant(000)  | 24000 | 18000 | 12000 | 6000 |
| Value of stock(000)  | 15000 | 9000  | 6000  | -    |

Apportion the above costs to the various departments on the most equitable method.

**Q. 9.** Small Company Ltd. has three production departments and four service departments. The expenses for these departments as per Primary Distribution Summary were.

| Particulars                    | Rs    | Rs     |
|--------------------------------|-------|--------|
| <b>Production Departments:</b> |       |        |
| A                              | 15000 |        |
| B                              | 13000 |        |
| C                              | 12000 | 40,000 |
| <b>Service Departments:</b>    |       |        |
| Stores                         | 2000  |        |
| Time-keeping                   | 1500  |        |
| Canteen                        | 500   |        |
| Power                          | 800   | 4800   |
| <b>Total</b>                   |       | 44,800 |

The following information are also available in respect of the production departments:

| Particular                        | Dept. A | Dept. B | Dept. C |
|-----------------------------------|---------|---------|---------|
| Horsepower of machines            | 300     | 300     | 200     |
| Number of workers                 | 20      | 15      | 15      |
| Value of stores requisitioned(Rs) | 2500    | 1500    | 1000    |

Apportion the costs of the various service departments to the production departments.

**Q.10.** M & Co. Has 3 production departments and 2 service departments. The expenses are as given below:

| Expenses          | Total(Rs) |
|-------------------|-----------|
| Consumable Stores | 15,400    |
| Supervision       | 22,800    |
| Rent & Rates      | 10,000    |
| Insurance         | 2000      |
| Depreciation      | 30,000    |
| Power             | 9000      |
| Light & Heat      | 4000      |
| <b>Total</b>      | 93,200    |

The following information is available:

| Bases            | Machine Shop | Assembly Shop | Finishing Dept. | Stores | Repairs & Maint. |
|------------------|--------------|---------------|-----------------|--------|------------------|
| Direct Materials | 34%          | 39%           | 13%             | 4%     | 10%              |
| Direct Wages     | 35%          | 22%           | 27%             | 10%    | 7%               |

|                   |          |          |        |        |        |
|-------------------|----------|----------|--------|--------|--------|
| Area (sq. ft.)    | 5,250    | 3,500    | 4,375  | 1,750  | 2,625  |
| Asset Value       | 2,00,000 | 2,25,000 | 50,000 | 12,500 | 12,500 |
| H.P. x Hours x LF | 10,800   | 7,200    |        |        |        |

- (a) Prepare the Primary Distribution Statement using the most appropriate basis for apportionment.
- (b) The machine Shop, Assembly Shop and Finishing Departments have issued stores requisitions in the ratio of 9:6:5, and repairs requests in the ratio of 2:3:1. Prepare the Secondary Distribution Statements on non-reciprocal (direct distribution) basis.

**Q.11.** In an engineering factory, the following particulars have been extracted for the year ended 31-12-2013:

| Particulars           | A      | B      | C      | X      | Y      |
|-----------------------|--------|--------|--------|--------|--------|
| Direct wages(Rs)      | 30,000 | 45,000 | 60,000 | 15,000 | 30,000 |
| Direct Materials (Rs) | 15,000 | 30,000 | 30,000 | 22,500 | 22,500 |
| Staff number          | 1,500  | 2,250  | 2,250  | 750    | 750    |
| Electricity (Kwh)     | 6000   | 4500   | 3000   | 1500   | 1500   |
| Asset value(Rs)       | 60,000 | 40,000 | 30,000 | 10,000 | 10,000 |
| Light Points          | 10     | 16     | 4      | 6      | 4      |
| Area (sq.mtr.)        | 150    | 250    | 50     | 50     | 50     |

The expenses for the period were as follows:

| Particulars      | Rs     |
|------------------|--------|
| Power            | 1,100  |
| Lighting         | 200    |
| Stores Overhead  | 800    |
| Welfare to staff | 3000   |
| Depreciation     | 30,000 |
| Repairs          | 6000   |
| General overhead | 12,000 |
| Rent and taxes   | 550    |

Apportion the expense of service department Y according to direct wages and those of service department X in the ratio 5:3:2 to the production departments. You are required to prepare an Overhead distribution Summary.

**Q.12.** Calculate the machine hour rate from the following details.

|                           |                                     |
|---------------------------|-------------------------------------|
| Bought machinery          | Rs. 45,000                          |
| Installation charges      | Rs. 5,000                           |
| Life of machines          | 5 years                             |
| Working hours per year    | 2,500                               |
| Repair charges            | 75% of depreciation                 |
| Electric power consumed   | 10 units per hr @ 15 paise per unit |
| Lubricant oil             | Rs. 4 per day of 8 hrs              |
| Consumable stores         | @ Rs. 10 per day of 8 hrs           |
| Wages of machine operator | @ Rs. 8 per day of 8 Hrs            |

**Q.13.** The following particulars relate to a new machine:

|                                        |                  |
|----------------------------------------|------------------|
| Purchase price                         | 4,00,000         |
| Installation expenses                  | 1,00,000         |
| Rent per quarter                       | 3,750            |
| General lighting for the total area    | 1,000 per month  |
| Foremen's salary                       | 30,000 per annum |
| Insurance premium for the machine      | 3,000 per annum  |
| Departmental overheads for the machine | 5,000 per annum  |
| Consumable stores                      | 4,000 per annum  |

Power – units per hour at 50 paise per unit.

The estimated life of the machines is 10 years and scrap value at the end of 10<sup>th</sup> year is Rs. 1,00,000. The machine is expected to run 20,000 hours in its life time. The machine occupies 25% of total area. The foreman devotes 1/6<sup>th</sup> of his time for the machine.

**Q.14.** From the following information, compute machine hours rate.

|                                                      |                              |
|------------------------------------------------------|------------------------------|
| Cost of machines                                     | Rs. 44,000                   |
| Scrap value                                          | Rs. 4,000                    |
| Rent for the workshop                                | Rs. 25,000 per annum         |
| General lighting for the workshop                    | Rs. 160 per month            |
| Power consumption 20 units per hour                  | @ Rs. 20 per every 100 units |
| Administrative expenses allocated to the machine     | Rs. 4,000 per annum          |
| Repairs and maintenance                              | 75% of depreciation          |
| Workshops supervisors salary                         | Rs. 3,000 per month          |
| Estimated working time per year                      | 50 weeks of 40 hours each    |
| Setting up time which is regarded as productive time | 200 hours per year           |
| Effective life of the machine                        | 10 years                     |

The machine occupies 1/4<sup>th</sup> area of the workshop. The supervisor is expected to devote 1/3<sup>rd</sup> of his time in supervising the machine.

**Illustration 15.** Compute the machine hour rate from the following data:

|                                                               |          |
|---------------------------------------------------------------|----------|
| Cost of machine                                               | 1,00,000 |
| Installation charges                                          | 10,000   |
| Estimated scrap value after the expiry of its life (15 years) | 5,000    |
| Rent and rates for the shop per month                         | 200      |
| General lighting for the shop per month                       | 300      |
| Insurance premium for the machine per annum                   | 960      |
| Repairs and maintenance expenses per annum                    | 1,000    |
| Power consumption – 10 units per hour                         |          |
| Rate of power per 100 units                                   | 20       |
| Estimated working hours per annum – 2,220                     |          |

(This includes non-productive setting up time of 200 hrs)

Shop supervisor's salary per month

The machine occupies 1/4<sup>th</sup> of the total area of the shop. The supervisor is expected to devote 1/5<sup>th</sup> of his time for supervising the machine.

**Q.16.** From the following particulars, calculate machine hour rate:

- |                     |              |
|---------------------|--------------|
| (i) Cost of machine | Rs. 1,00,000 |
| Estimated life      | 10 years     |
| Scrap value         | Rs. 10,000   |
- (ii) Estimated working time – 50 weeks of 44 hours each. It includes the following:
- |                                 |         |
|---------------------------------|---------|
| a. Time taken up in maintenance | 200 hrs |
| b. Setting up time              | 100 hrs |
- However, setting up time is regarded as productive time.
- (iii) Power used during production is 16 units per hour @ 9 paise per unit. No current is taken during maintenance or setting up time.
- (iv) The machine requires a chemical solution which is replaced at the end of each week at a cost of Rs. 20 each time.
- (v) Cost of maintenance – Rs. 1,200 per annum
- (vi) A supervisors oversees the operation of this machine together with five other identical machines. His weekly salary amounts to Rs. 120.
- (vii) General work overheads allocated to this machine for the year amount to Rs. 2,000.

**Q. 17.** Compute a comprehensive machines hour rate for a machine in Production department 'A' of factory from the following details:

**Machine :**

|                                     |               |
|-------------------------------------|---------------|
| Cost including installation charges | Rs. 20,00,000 |
| Estimated useful life               | 10 years      |
| Estimated salvage value             | 10%           |

**Working hours:**

|                                       |         |
|---------------------------------------|---------|
| Number of working days                | 300     |
| Number of shift per day               | 2       |
| Effective working hours per shift     | 7       |
| Stoppages for repairs and maintenance | 200 hrs |

**Operating & Other cost:**

1. Wages of two operators (one for each shift) @ Rs. 5,000 per month
2. Salary of supervisor (one for each shift) @ Rs. 7,500. ( only one-fifth of the supervisor's time devoted to this machine)
3. Electric power : 20 units per hour, each unit costing Rs. 3.20
4. Insurance charges : Rs. 5,000 per annum
5. Repairs and maintenance (estimated): Rs. 12,500 p.m.
6. Rent rates and taxes (allocated): Rs. 10,000 p.a.
7. General lighting etc (allocated): Rs.750 p.m.
8. Other factory overheads (allocated): Rs. 1,40,000..

**Q.18** from the following data of textile factory machine room, compute an hourly machine rate, assuming that the machine room will work on 90% capacity throughout the year and that a breakdown of 10% is reasonable. There are three days holiday at deepawali, 2 days at Holi and 2 days at Christmas exclusive of Sundays. The factory work 8 hours a day and four hours on Saturday. Number of machines (each of the same type) – 40

Expensive per annum:

|       |          |
|-------|----------|
| Power | 3,12,000 |
| Light | 64,000   |

|                     |          |
|---------------------|----------|
| Salaries to foremen | 1,20,000 |
| Lubricating oil     | 6,600    |
| Repairs to machine  | 1,44,600 |
| Depreciation        | 78,560   |

**Q.19.** In a machine department of a factory there are five identical machines. From the particulars given below; prepare the machine hour rate for one of the machines.

|                                                                              |                |
|------------------------------------------------------------------------------|----------------|
| Space of the department                                                      | 10,000 sq.mts. |
| Space occupied by the machines                                               | 2,000 sq.mts.  |
| Cost of the machines                                                         | Rs. 20,300     |
| Scrap value of the machines                                                  | Rs. 300        |
| Estimated life of machines                                                   | 13 years       |
| Depreciation charged at                                                      | 7.5% p.a.      |
| Normal running of the machine                                                | 2,000 hours    |
| Power consumed by the machine as shown by the meter                          | 3,600 p.a.     |
| Estimated repairs and maintenance throughout the Working life of the machine | Rs. 5,200      |

**Other expenses of the department are:**

|                                                            |           |
|------------------------------------------------------------|-----------|
| Rent and rates                                             | Rs. 9,000 |
| Lighting (to be apportioned according to workers employed) | 400       |
| Supervision                                                | 1,250     |
| Other charges                                              | 5,000     |

It is ascertained that the degree of supervision required by the machine is  $\frac{2}{5}$ <sup>th</sup> and  $\frac{3}{5}$ <sup>th</sup> being devoted to other machines. There are 16 workers in the department of whom 4 attended to the machine and the remaining to the other machines.

**Q.20.** Particulars of three machines used in a factory are as under (six week period, 160 hours working)

| Particulars     | Machine X Rs. | Machine Y Rs. | Machine Z Rs. |
|-----------------|---------------|---------------|---------------|
| Cost of machine | 10,000        | 15,000        | 20,000        |
| No. of working  | 2             | 5             | 10            |
| Direct wages    | 300           | 800           | 1,200         |
| Power           | 45            | 80            | 150           |
| Light points    | 2             | 4             | 6             |
| Area occupied   | 100 sq.ft.    | 250 sq.ft.    | 400 sq.ft.    |

The expenses incurred during the period were as follow:

|                  |              |
|------------------|--------------|
|                  | Rs.          |
| Power            | 275          |
| Lighting         | 48           |
| Rent and taxes   | 450          |
| Depreciation     | 1,350        |
| Repairs          | 1,800        |
| Indirect wages   | 460          |
| Canteen expenses | 51           |
| Sundries         | <u>300</u>   |
| Total            | <u>4,734</u> |

Compute the machine hour rate for each machine.



9] Cost Accounting covers

**(a) the preparation of statistical data**

(b) the application of cost control methods

(c) the ascertainment of the probability of activities carried out or planned

(d) all the above

10] Which of the following statements is true?

(a) The word "cost" has the same meaning in all situations in which it is used

(b) Different cost concepts and classifications are used for different purposes

**(c) All organizations incur the same types of costs**

(d) Costs incurred in one year are always meaningful in the following year

11] Costs behavior refers to

(a) how costs react to a change in the level of activity

(b) whether a cost is incurred in a manufacturing, trading, or service company

(c) Classifying costs as either product or period costs

**(d) whether a particular expense has been incurred honestly**

12] An example of fixed cost is:

(a) Materials consumed

(c) Factory power

**(b) Depreciation**

(d) Packing material

13] A cost per unit which increases or decreases when volume of output increases or decreases is known as

**(a) Fixed cost**

(b) Variable cost

(c) Semi-variable cost

(d) None of the above

14] Which of the following would not be considered a fixed cost?

(a) Rent

(b) Depreciation

**(c) Cost of bottles used in the production of soft drinks**

(d) Property taxes

15] An example of variable cost is

(a) Property taxes

(b) Interest on capital

**(c) Direct material cost**

(d) Depreciation of machinery

16] Variable cost per unit

(a) Varies when output varies

**(b) Remains constant**

(c) Increases when output increases

(d) decreases when output decreases

17] Which of the following is not an example of a variable cost?

**(a) Straight-line depreciation on a machine expected to last five years**

(b) Piece-rate wages paid to manufacturing workers

(c) Wood used to make furniture

(d) Commissions paid to sales personnel

18] Which of the following costs will vary directly with the level of production?

- (a) Total manufacturing costs (b) total cost of sales  
(c) Variable selling costs (d) **Variable product costs**

19] If the level of activity increases

- (a) Variable cost per unit and total fixed costs increase  
(b) fixed cost per unit and total variable cost increase  
(c) **total cost will increase and fixed cost per unit will in decrease**  
(d) variable cost per unit and total cost increase

20] When 10,000 units are produced, variable costs are Rs. 6 per unit. Therefore, when 20,000 units are produced

- (a) **Variable costs will total Rs. 1,20,000**  
(b) variable costs will total Rs. 60,000  
(c) variable unit costs will increase to Rs. 12 per unit  
(d) variable units costs will decrease to Ts. 3 per unit

21] Costs which are ascertained after they have been incurred are know as

- (a) Imputed costs (b) Sunk costs  
(c) **Historical costs** (d) Opportunity costs

22] Prime costs plus variable overhead is known as

- (a) Production cost (b) **Marginal costs**  
(c) Total cost (d) Cost of sales

23] When premises are owned, a charge in lieu of rent is

- (a) an opportunity cost (b) **an imputed cost**  
(c) a sunk cost (d) an avoidable cost

24] Costs which are not relevant for decision-making and are not affected by increase or decrease in volume are

- (a) Imputed costs (b) **Suck costs**  
(c) Historical costs (d) Opportunity costs

25] When amount deposited in a bank is withdrawn for financing a project, the loss of interest on bank deposit will be referred to as

- (a) Sunk costs (b) Pre-production cost  
(c) **Opportunity costs** (d) Replacement cost

26] The cost of a special device that is necessary if a special order is accepted is a

- (a) **Relevant cost** (b) Suck costs  
(c) Historical costs (d) Opportunity costs

27] A cost centre is

- (a) A unit of product or service in relation to which costs are ascertained  
(b) An amount of expenditure attributable to an activity

(c) A production or service location, function, activity or item of equipment for which costs are accumulated

(d) A centre for which an individual budget is drawn up

28] A cost unit is

(a) the cost per hour of operating a machine

(b) the cost per unit of electricity consumed

(c) a unit of product or service in relation to which costs are ascertained

(d) a measure of work output in a standard hour

29] Costs that can be easily traced to a specific department are called

(a) Direct costs (b) indirect costs

(c) Overheads (d) Processing costs

30] The three major elements of product costs are all except

(a) Direct materials (b) Factory overhead

(c) Direct labour (d) Indirect labour

31] Indirect costs

(a) can be traced to a cost object

(b) cannot be traced to a particular cost object

(c) are not Important

(d) are always variable costs

32] Indirect costs are known as

(a) Variable costs (b) Fixed costs

(c) Overheads (d) None of the above

33] A functional classification of costs would classify 'depreciation on office equipment' as a

(a) Product cost (b) Administrative cost

(c) selling expenses (d) Variable cost

34] Direct material is a

(a) Manufacturing cost (b) Administrative cost

(c) Selling and distribution cost (d) Any of the above

35] A particular cost is classified as being semi-variable. What is the effect on the TOTAL COST if activity increases by 20%?

(a) Stays the same (b) Decreases by less than 20%

(c) Increases by 20% (d) Increases by less than 20%

36] Costs that change in response to alternative courses of action are called

(a) Relevant costs (b) Differential costs

(c) Target costs (d) Sunk costs

37] A production worker paid salary of Rs. 700 per month plus an extra Rs. 5 for each unit produced during the month. This labour cost is best described as

- (a) A fixed cost (b) A variable cost  
(c) A semi-variable cost (d) A step fixed cost

**38] The functional classification of cost include the following except**

- (a) Prime cost (b) Production cost  
(c) Administration cost (d) Marketing cost

**39] Which of the following is not included in the administration cost?**

- (a) Salaries of general office staff (b) Salaries of foremen  
(c) Office supplies and expenses (d) Postage, stationery, telephone, etc.

**40] You are given the cost and volume information below:**

| Volume    | Cost      |
|-----------|-----------|
| 1 unit    | Rs. 15    |
| 10 units  | Rs. 150   |
| 100 units | Rs. 1,500 |

What type of a cost is given?

- (a) Fixed cost (b) Variable cost  
(c) Step cost (d) Mixed cost

**41] Which of the following statements regarding graphs of fixed and variable costs is true?**

- (a) Variable costs can be represented by a straight line where costs are the same for each data point  
(b) Fixed costs can be represented by a straight line starting at the origin and continuing through each data point  
(c) Fixed cost are zero when production is equal to zero  
(d) Variable costs are zero when production is equal to zero

**42] The following data relate to two output levels of a department:**

|                 |          |          |
|-----------------|----------|----------|
| Machine Hours   | 17,000   | 18,500   |
| Overheads (Rs.) | 2,46,500 | 2,51,750 |

The variable overhead rate per hour is Rs. 3.50. The amount of fixed overheads is

- (a) Rs. 5,250 (b) Rs. 59,500  
(c) Rs. 1,87,000 (d) Rs. 2,46,500

**B] FILL IN THE BLANKS:**

- \_\_\_\_\_ is a measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering services.
- \_\_\_\_\_ means the process of ascertainment of costs.
- \_\_\_\_\_ is the guidance and regulation by executive action of the costs of operating an undertaking.
- \_\_\_\_\_ is the process of accounting for the costs from the point at which expenditure is incurred, to the establishment of its ultimate relationship with costs centre's and cost units.
- \_\_\_\_\_ of costs is the arrangement of items of costs in logical groups having regard to their nature or purpose.

- 6] \_\_\_\_ (Subjective/Objective) Classification of costs is the arrangement of items of costs in logical groups having regard to their nature.
- 7] \_\_\_\_ (Subjective/Objective) Classification of costs is the arrangement of items of costs in logical groups having regard to their purpose.
- 8] Costs are classified, on the basis of \_\_\_\_, into Fixed Cost, Variable Cost and Semi-fixed or Semi-variable cost.
- 9] Costs are classified, on the basis of behavior, into Fixed Cost, Variable Cost and Semi-fixed or Semi-variable cost, depending upon the response to the changes in \_\_\_\_ level.
- 10] Costs are classified, on the basis of behavior, into Fixed Cost, Variable Cost and \_\_\_\_ cost.
- 11] \_\_\_\_ Cost is the cost which does not vary with the change in the volume of activity in the short run.
- 12] Fixed Cost is the cost which does not vary with the change in the volume of \_\_\_\_ in the short run.
- 13] Fixed Cost is the cost which does not vary with the change in the volume of activity in the \_\_\_\_ (long/short) run.
- 14] \_\_\_\_ Cost is the cost of elements which tends to directly vary with the volume of activity.
- 15] Variable Cost is the cost of elements which tends to directly vary with the \_\_\_\_ of activity.
- 16] Variable cost has two parts- (a) Variable \_\_\_\_ cost; and (b) Variable \_\_\_\_ costs.
- 17] \_\_\_\_ Costs contain both fixed and variable elements.
- 18] \_\_\_\_ Costs are the actual costs of acquiring assets or producing goods or services.
- 19] \_\_\_\_ costs for a product are computed in advance of production, on the basis of a specification of all the factors affecting cost and cost data.
- 20] \_\_\_\_ costs are costs calculated in advance of production or even before accepting sales order.
- 21] \_\_\_\_ Cost is the aggregate of variable costs.
- 22] \_\_\_\_ Cost is the aggregate of prime cost plus variable overhead.
- 23] \_\_\_\_ Cost is hypothetical or notional cost not involving any actual cash payment computed only for the purpose of decision-making.
- 24] \_\_\_\_ Cost is historical cost which is incurred in the past, and not relevant to the decision required to be made by the management at present.
- 25] \_\_\_\_ Cost is an unusual or atypical cost whose occurrence is usually irregular and unexpected and due to some abnormal situation of the production.
- 26] \_\_\_\_ Costs are inescapable costs which are essentially to be incurred, within the limits or norms provided for.
- 27] \_\_\_\_ Cost is the change in cost due to change in activity from one level to another.
- 28] If an expenditure can be allocated to a cost centre or a cost unit then it is called \_\_\_\_.
- 29] Indirect cost is also known as \_\_\_\_.
- 30] Cost \_\_\_\_ is any unit of cost selected with a view of accumulating all costs under that unit.
- 31] Cost \_\_\_\_ is a form of measurement of volume of production or service.
- 32] \_\_\_\_ (Direct/Indirect) Material Cost is the cost of material which can be readily allocated to a cost centre or a cost object in an economically feasible way.
- 33] \_\_\_\_ (Direct/Indirect) Labour Cost is the cost of wages of those workers whose are readily identified or linked with a cost centre or cost object.

- 34] Direct Expenses are the expenses \_\_\_\_\_ (such as/ other than) direct material or direct labour which can be identified or linked with the cost centre or cost object.
- 35] \_\_\_\_\_ is "a system of symbols designed to be applied to a classified set of items to give a brief account reference, facilitating entry collection and analysis".
- 36] A \_\_\_\_\_ is a unit of product or service in relation to which costs are ascertained.
- 37] A \_\_\_\_\_ cost is an expenditure which can be economically identified with and specifically measured in respect to a relevant cost object.
- 38] \_\_\_\_\_ cost is the total cost of direct material, direct labour and direct expenses.
- 39] An \_\_\_\_\_ or \_\_\_\_\_ cost is an expenditure on labour, material or services which cannot be economically identified with a specific saleable cost unit.
- 40] A cost \_\_\_\_\_ is a production or service location, function, activity or item of equipment for which costs are accumulated.
- 41] A \_\_\_\_\_ cost is a cost which is incurred for an accounting period and which tends to be unaffected by fluctuations in the levels of activity.
- 42] A \_\_\_\_\_ cost is a cost which is directly related to output.
- 43] Cost Accounting Standard \_\_\_\_\_ deals with Material Cost.

**Ans:-** (1) Cost (2) Costing (3) Cost control (4) Cost Accounting (5) Classification (6) Subjective (7) Objective (8) behavior (9) activity (10) Semi-variable (11) fixed (12) Activity (13) Short (14) Variable (15) Volume (16) Direct; Indirect (17) Semi Variable (18) Historical (19) Pre-determined (20) Estimated (21) Marginal (22) Marginal (23) Imputed (24) Sunk (25) Abnormal (26) Unavoidable (27) Differential (28) Overhead (29) Overhead (30) Centre (31) Unit (32) Direct (33) Direct (34) Other than (35) Code (36) Cost unit (37) Direct (38) Prime (39) Overhead or Indirect (40) Centre (41) Fixed (42) Variable (43) 6

**C] MATCH THE FOLLOWING**

**A]**

| COLUMN A                        | COLUMN B                 |
|---------------------------------|--------------------------|
| 1. Amount of resources used for | (a) Financial Accounting |
| 2. Production of goods          | (b) Capital expenditure  |
| 3. Used by investors, creditors | (c) Internal records     |
| 4. Cost control                 | (d) Cost Accounting      |
|                                 | (e) Cost                 |
|                                 | (f) Reduction of costs   |
|                                 | (g) Regulation of costs  |

**Ans:-** [1-e], [2-c], [3-a], [4-g]

**[B]**

| COLUMN A               | COLUMN B                             |
|------------------------|--------------------------------------|
| 1. Total fixed costs   | (a) Remains constant per unit        |
| 2. Total variable cost | (b) Cost not assigned to be products |
| 3. Unit variable cost  | (c) What cost should be?             |
| 4. Unit variable cost  | (d) Remain constant in total         |
| 5. Standard cost       | (e) What costs are expected to be    |
| 6. Period cost         | (f) Decreases with rise in output    |
| 7. Actual cost         | (g) Added value of a new product     |
| 8. Labour and overhead | (h) Incurred cost                    |
| 9. Incremental cost    | (i) Cost of conversion               |
| 10. Budgeted cost      | (j) Increase in proportion to output |

**Ans:-** [1-d], [2-j], [3-a], [4-f], [5-c], [6-b], [7-h], [8-i], [9-g], [10-e]

**[C]**

| COLUMN A                                               | COLUMN B                                                       |
|--------------------------------------------------------|----------------------------------------------------------------|
| 1. Costs classified on basis of natural elements       | (a) Relevant, Differential, Opportunity and Sunk Costs         |
| 2. Costs classified on basis of traceability to object | (b) Fixed, Variable and Semi-variable Costs                    |
| 3. Costs classified on basis of Functions              | (c) Material, Labour and Expenses                              |
| 4. Cost classified on basis of variability             | (d) Production, Administration, Selling and Distribution Costs |
| 5. Costs classified for decision-making                | (e) Direct and Indirect Costs                                  |

**Ans:-** [1-c], [2-e], [3-d], [4-b], [5-a]

**[D] STATE WHETHER TRUE OR FALSE**

1. Financial Accounts fail to give a product-wise break-up or profit or loss. **True**
2. Financial Accounts fail to show whether there was any abnormal waste during the process or production. **True**
3. Cost Accounting ascertains the individual costs of each contract. **True**
4. Cost Accounting helps the management to control the cost of Materials, Labour and Expenses. **True**
5. Cost Accounting helps in controlling the leakage and wastage of materials. **True**
6. Cost Accounting is used by investors, creditors etc. **False**
7. Costing is a comprehensive term which includes Cost Accounting. **False**
8. Periodical Matching of income and expenses is one of the fundamental assumptions of cost accounting. **False**
9. Cost Accounting provides data for managerial decision-making. **True**
10. Cost Accounting gets its basic data for estimates from the financial accounting system. **True**
11. Cost accounting can be used only in manufacturing concerns. **False**
12. Costing, cost accounting and cost accountancy mean one and the same thing. **False**
13. Cost accounting is a branch of financial accounting. **False**

14. Cost accounting provides cost information not only-to management but also to shareholders. **False**
15. Cost accounting information focuses on external reporting. **False**
16. A profitable business concerns does not need costing system. **False**
17. Cost accounting is not needed by a non-profit organization such as a hospital. **False**
18. Cost accounting is not needed if the price is beyond the control of the firm. **False**
19. Cost accounting assists financial accounting with regard to the valuation of inventory. **True**
20. The scope of cost accounting includes cost ascertainment, cost presentation and cost control. **True**
21. Since pricing is a matter of managerial policy, cost information is useless for price fixation. **False**
22. Cost accounting provides information for ascertaining the financial position as on a particular data. **False**
23. Cost accounting helps in controlling cost. **True**
24. Costing and cost accounting are the same. **False**
25. Cost Control means a lower amount of profit to the company. **False**
26. Cost reduction is the payment for which is not actually made, is an example of imputed cost. **False**
27. All costs are controllable. **False**
28. Interest on capital, payment for which is not actually made, is an example of imputed cost. **True**
29. An item of cost which is uncontrollable by one Manager may be controllable by another. **True**
30. Only variable costs are controllable. **False**
31. Variable cost remains constant per unit within a range of activity. **True**
32. Sunk costs are relevant to present decisions. **False**
33. Imputed costs are a type of opportunity costs. **True**
34. Variable overheads vary with time. **False**
35. Fixed costs vary with the level of production or sales volume. **False**
36. Marginal costs are not at all helpful to management for decision-making. **False**
37. Cost Accounting Standard 2 deals with Classification of Cost. **False**

## 2. Material Cost

### MULTIPLE CHOICE QUESTIONS

#### **A] Conceptual**

1. In most of the manufacturing industries, the most important element of cost is  
**(a) Material**            (b) Labour            (c) Overheads            (d) None of the above
  
2. Continuous stock taking is part of  
(a) Annual stock taking            **(b) Perpetual inventory**  
(c) ABC analysis            (d) None of the above
  
3. Which of the following is considered to be a normal loss of material?  
(a) Loss due to accidents            **(b) Pilferage**  
(c) Loss due to careless handling of material            (d) Loss due to breaking the bulk
  
4. Bin card is maintained by the  
(a) Accounts department            (b) Costing department            **(c) Stores**            (d) None of the above
  
5. Bin card contains  
(a) Details of the price of raw material lying in the Bin  
(b) Details of the price and quantity of raw material lying in the Bin  
**(c) Details of quantity of material lying in the Bin**  
(d) None of the above
  
6. Which of the following assumptions are made for the calculation of Economic Order Quantity?  
(a) Anticipated usage of material in units is known  
(b) Cost per unit of material is constant and known  
(c) Ordering cost per order is fixed  
**(d) All the above**
  
7. Which of the following is an accounting record?  
(a) Bill of Materials            (b) Bin card            **(c) Stores ledger**            (d) All of these
  
8. Which of the following methods of stock control aims at concentrating efforts on selected items of materials?  
(a) Perpetual inventory system  
(b) Material turnover  
(c) Maximum, minimum and re-order level setting  
**(d) ABC analysis**
  
9. The classification of items in ABC analysis is made on the basis of  
(a) investment value of materials            (b) Consumption value of materials  
(c) Quantity of material consumed            **(d) All of these**
  
10. Which of the following documents is used for issuing materials to production departments?

- (a) Purchase Requisition Note  
(c) Goods Received Note

- (b) Stores requisition Note  
**(d) Stores Credit Note**

11. The storekeeper should initiate a purchase requisition when stock reaches

- (a) Minimum level  
**(c) Re-order level**  
(b) Maximum level  
(d) Average level

12. Which of the following material losses should be transferred to Costing Profit and Loss Account?

- (a) Loss by evaporation  
**(b) Loss due to improper storage of materials**  
(c) Loss due to breaking the bulk  
(d) All of these

13. A written request to a supplier for specified goods at an agreed upon price is called a:

- (a) Purchase order**  
(b) Receiving report  
(c) Purchase requisition  
(d) Materials requisition form

14. Which of the following documents in a cost accounting system is designed to exercise control over the delivery of and accurate recording of the receipt of goods?

- (a) Goods received note**  
(b) Material requisition  
(c) Order to the supplier  
(d) Purchase requisition

15. A purchase requisition is raised

- (a) to intimate to the supplier the quantity and quality of new material required  
**(b) when the stock of raw material has fallen to the recorder level**  
(c) when goods are received from a supplier  
(d) to let the accounts department know that an invoice should be expected from a supplier

16. The reorder level is

- (a) the number of units that should be ordered  
**(b) the level of inventory when next order should be placed**  
(c) the economic order quantity  
(d) both (b) and (c)

17. The costs of goods acquired from suppliers including incoming freight or transportation costs are:

- (a) Purchasing costs**  
(b) Ordering costs  
(c) Stockout costs  
(d) Carrying costs

18. The costs of preparing, issuing, and placing purchase orders, plus receiving and inspecting the items included in orders is:

- (a) Purchasing costs  
**(b) Ordering costs**  
(c) Stockout costs  
(d) Carrying costs

19. The costs that result when a company holds an inventory of goods for sale:

- (a) Purchasing costs  
**(b) Carrying costs**

- (c) Opportunity costs (d) Interest costs
20. The costs associated with storage are an example of which cost category?  
(a) Quality costs (b) Labour costs  
(c) Ordering costs (d) **Carrying costs**
21. If there is increase in the size of inventory orders, Number of orders per year will  
(a) **Increase** (b) decrease  
(c) remain same (d) change depending on other factors
22. If there is increase in the size of inventory orders, Total annual carrying costs will  
(a) **Increase** (b) decrease  
(c) remain same (d) change depending on other factors
23. If there is increase in the size of inventory orders, Total annual ordering costs will  
(a) increase (b) **Perpetual inventory**  
(c) remain same (d) change depending on other factors
24. Continuous stock taking is a part of  
(a) Annual stock taking (b) **Perpetual inventory**  
(c) ABC analysis (d) Inventory Turnover Ratio analysis
25. Material control involves control over  
(a) Consumption of material  
(b) Issue of material  
(c) Purchase of material  
(d) **Purchase, storage and issue of material**
26. Material requisition is meant for  
(a) Purchase of material (b) **Supply of material from stores**  
(c) Sale of material (d) Storage of material
27. Perpetual inventory system involves  
(a) **Bin card and Stores ledger**  
(b) Bill of material and Material requisition  
(c) Purchase requisition and purchase order  
(d) Inward and Outward invoices
28. FIFO is  
(a) Fast Investment in Future Order (b) **First in First Out**  
(c) Fast in Fast Out (d) Fast issue of Fast Order
29. Material is issued by store keeper against  
(a) **Material requisition** (b) Material order  
(c) Goods received note (d) Purchase requisition
30. EOQ stands for

- (a) Economic Order Quantity (b) Essential Order Quantity  
(c) Economic Output Quantity (d) Essential Output Quantity

31. The document which is prepared after receiving and inspecting material

- (a) Material record note (b) Goods received note  
(c) Bill of material (d) Inventory record

### B. Numerical

32. Price per unit Rs. 150, annual consumption 2,000 units, ordering cost Rs. 300 per order and other charges 20% of cost. What should be the quantity of each order?

- (a) 150 units (b) 200 units (c) 225 units (d) None of the above

33. If the annual demand is equal to 500 units, ordering cost is equal to 40 and carrying cost is equal to Rs. 4 per unit, the EOQ is

- (a) 10 (b) 31.62 (c) 100 (d) 37.5

34. If the EOQ is 400 units, the ordering cost is Rs. 0.20, the carrying cost Rs. 20, how many orders are placed per year?

- (a) 1 (b) 5 (c) 2 (d) 4

35. A factory requires 8,000 units of a component every year. The cost of placing and following up an order is Rs. 100 and the storage cost per annum is Rs. 40. The Economic order quantity (EOQ) is \_\_\_\_\_ units.

- (a) 1,00,000 units (b) 5,000 units  
(c) 10,000 units (d) 7,500 units

36-37. Expected annual usage of a particular raw material is 2,00,000 units and the economic order quantity is Rs.10,000 units. The invoice cost of each units is Rs.500 and the cost to place are order is RS.80.

The average inventory is

- (a) Rs. 1,600 (b) Rs. 10,000 (c) Rs. 3,200 (d) Rs. 5,000

37. The estimated annual order cost is

- (a) Rs.1,600 (b) Rs.10,000 (c) Rs.3,200 (d)Rs.5,000

38. O Ltd. Maintains the inventory records under perpetual system of inventory .Consider the following data pertaining to inventory to O Ltd. Held for the month of March 2014.

| Date  | particulars       | Quantity | cost per unit (Rs.) |
|-------|-------------------|----------|---------------------|
| Mar.1 | Opening inventory | 15,400   |                     |
| Mar.4 | Purchases         | 20,450   |                     |
| Mar.6 | Purchases         | 10,460   |                     |

If the company sold 32 units on March 24,2014, closing inventory under FIFO method is

- (a)Rs.5,200 (b) Rs.5,681 (c) Rs.5,800 (d) Rs.5,950

39. The following are the details regarding purchases of a certain item during the month of January .

|            |                             |            |
|------------|-----------------------------|------------|
| January 1  | purchases 200 units @ Rs.7  | Rs.1,400   |
| January 8  | Purchases 900 units @ Rs.8  | Rs. 7,200  |
| January 25 | Purchases 300 units @ Rs.9  | Rs. 2,700  |
| January 30 | Purchases 400 units @ Rs.10 | Rs. 4,000  |
|            |                             | Rs. 15,000 |

A physical inventory of the items taken on January 31 shows that there are 700 units in hand. The valuation of inventory as per FIFO method is:

(a) Rs. 5,400      **(b) 6,700**      (c) Rs. 8,600      (d) 5,000

40. The annual demand of a certain component bought from the market is 1,000 units. The cost of placing an order is Rs. 60 and the carrying cost per unit is Rs. 3 p.a. The Economic Order Quantity for the item is \_\_\_\_\_.

**(a) 200**      (b) 400      (c) 600      (d) 300

41. A firm requires 16,000 Nos. of certain component, which it buys at Rs. 60 each. The cost of placing an order and following it up is Rs. 120 and the annual storage charges works out to 10% of the cost of the item. To get maximum benefit the firm should place order for \_\_\_\_\_ units at a time.

(a) 1,000      (b) 900      **(c) 800**      (d) 600

42. A manufacture used 400 units of component every month and he buys them entirely from an outside supplier @ Rs. 40 per unit. The order placing and receiving cost is Rs. 100 and storage and carrying cost is 15% of the value of stock. To get maximum benefit, he should place an order for \_\_\_\_\_ units at a time.

(a) 300 units      **(b) 400 units**      (c) 450 units      (d) 500 units

43. The average annual consumption of material is 20,000 kgs. at a price of Rs. 2 per kg. The storage cost is 16% on average inventory and the cost of placing one order is Rs. 50. How much is to be purchase at a time?

(a) 2,000 kgs.      **(b) 2,500 kgs.**      (c) 1,800 kgs.      (d) 3,000 kgs.

**Hints:**

38.  $(10 \times 460) + (3 \times 450)$

39.  $(400 \times 10) + (300 \times 9)$

$$40. \frac{\sqrt{2 \times 1,000 \times 60}}{3} = 200$$

$$41. \frac{\sqrt{2 \times 16,000 \times 120}}{60 \times 10 / 100} = 800$$

$$42. \frac{\sqrt{2 \times 4,800 \times 100}}{40 \times 15 / 100} = 400$$

$$43. \frac{\sqrt{2 \times 20,000 \times 50}}{2 \times 16 / 100} = 2,500$$

## Q.2: FILL IN THE BLANKS

1 A request for a specific item made in writing to the Purchase Department is called a Purchase \_\_\_\_\_.

2 Purchase \_\_\_\_\_ is a contract between the purchaser and the supplier for the supply of material on agreed items.

- 3 Once \_\_\_\_\_ is issued by the Store the material becomes the property of the purchasing company and the responsibility of the Stores.
- 4 The initial sanction of the total quantity in respect of a job or contract is made through a document known as \_\_\_\_\_.
- 5 Abnormal losses in stock \_\_\_\_\_ (are/are not) charged to cost of production.
- 6 Loss due to evaporation is a \_\_\_\_\_ (normal avoidable/normal unavoidable/ abnormal) loss of materials.
- 7 The formula for calculating economic order quantity is \_\_\_\_\_.
- 8 In ABC analysis, \_\_\_\_\_ (A/B/C) Category of items are about 10% of items having 70% of value.
- 9 Under the \_\_\_\_\_ (Perpetual/ Periodical) inventory system, closing stock is ascertained from the stock ledger itself, after each receipt or issue.
- 10 Bin card is maintained by the \_\_\_\_\_.
- 11 Abnormal losses of materials at which a new order for material is to be placed.
- 12 \_\_\_\_\_ is that level of materials at which a new order for material is to be placed.
13. \_\_\_\_\_ represents that quantity of material which is normally ordered when the material reach ordering level.
14. Under the ABC technique 'A' stands for \_\_\_\_\_ value items .
15. Goods received Note is prepared by the \_\_\_\_\_.
16. Quantities of material on hand as shown by the bin cards should agree with quantities on the \_\_\_\_\_.
17. Under the \_\_\_\_\_ method, a new issue price is determined after each purchase .
18. The formula for fixing minimum stock level is \_\_\_\_\_.
19. The two perpetual inventory records are \_\_\_\_\_ and \_\_\_\_\_.
20. A method of recording balances after every receipt and issue to facilitates regular checking and to obviate closing down for stock taking is known as \_\_\_\_\_.
21. Two important opposing factor in fixing the economic order quantity are cost of \_\_\_\_\_ and cost of stock .
22. The method of regular physical verification of material throughout the year is known as \_\_\_\_\_ stock-taking.
23. \_\_\_\_\_ discount is a special type of discount allowed for bulk purchases.
24. \_\_\_\_\_ is a document on which is recorded the transfer of material from one job or department to another .
25. \_\_\_\_\_ is document which authorizes and record the issue of material for use.
26. In \_\_\_\_\_ method stock is valued at the latest price paid .
27. \_\_\_\_\_ is a document which records the return of unused material.

**Ans:-** (1) Requisition (2) Order (3) Goods received Note (4) Bill of Materials (5) are not (6) normal avoidable

(7)  $EOQ = \sqrt{\frac{2AO}{C}}$  A (9) Perpetual (10) storekeeper (11) Costing Profit and

Loss A/c (12) Re-order level (13) Re-order quantity (14) High (15) Receiving department (16) Stores ledger account (17) Weighted average (18) Re-order level-(Normal consumption x Normal re-order period) (19) Bin card; stores ledger (20) Perpetual inventory system (21) ordering; carrying stock (22) Continuous (23) Quantity or Volume

(24) Material transfer note (26) Material Requisition Note (26) FIFO (27) Materials return note

**Q.3: Match the following.**

**A]**

| COLUMN A                                 | COLUMN B                     |
|------------------------------------------|------------------------------|
| a) ABC analysis                          | 1. Purchase requisition note |
| b) Perpetual inventory                   | 2. Selective control         |
| c) Abnormal material losses              | 3. Stores requisition note   |
| d) Master requisition                    | 4. Costing P&L A/C           |
| e) Issuing a material item to production | 5. Continuous stock-taking   |
| f) First step in purchase                | 6. Bill of material          |

Ans:- (A)-(2), (B)-(5), (C)-(4), (D)-(6), (E)-(3), (F)-(1)

**B] Match the terms in Column A with statement in Column B**

| Column A (terms)              | Column B (Statement)                                                                  |
|-------------------------------|---------------------------------------------------------------------------------------|
| A. Material                   | K. $\text{Maximum consumption} \times \text{Maximum re-order period}$                 |
| B. Finished product           | L. All the material required for a particular job listed by the production department |
| C. Purchase requisition       | M. Consumed in the process of manufacture                                             |
| D. The maximum stock level    | N. Supplies do not become a part of                                                   |
| E. Economic order quantity    | O. The first step in the purchase procedure                                           |
| F. Material return note       | P. Maintain material at the optimum level at of its requirement returned to stores    |
| G. Bill of material           | Q. Method of knowing the stock level of every, item of material at all times          |
| H. Perpetual inventory system | R. Re-order level- $(\text{Normal Consumption} \times \text{Normal re-order period})$ |
| I. Minimum stock level        | S. Materials issued to a department in excess of its requirement returned to stores   |
| J. Re-order levels            | T. Above which the stock of that material should not generally be allowed to go.      |

Ans:- (A)-(3), (B)-(4), (C)-(5), (D)-(10), (E)-(6), (F)-(9), (G)-(2), (H)-(7), (I)-(8), (J)-(1)

**Q.4: STATE WHETHER TRUE OR FALSE**

- Stores ledger is maintained in the stores department. **False**
- Purchase requisition Note is prepared by the purchasing department. **False**
- Perpetual inventory system enables management to ascertain stock at any time without the expense of physical stock-taking. **True**
- Annual stock-taking confirms that the perpetual inventory is functioning properly. **False**
- Weighted average method of pricing stores involves adding all the different prices and dividing by the number of such prices. **False**
- Bin card shows the quantity and value of a material at any moment of time. **False**

7. Material losses due to careless handling resulting in breakage should be transferred to costing profit and loss a/c. **True**
8. Bill of Material is a cash memo sent by the supplier along with the materials. **False**
9. Bin cards are not a part of accounting records. **True**
10. Stores Requisition Note is not a perpetual inventory record. **True**
11. When maximum stock level is fixed, somewhere between maximum and minimum stock levels. **False**
12. Re-ordering level is always fixed somewhere between maximum and minimum stock levels. **True**
13. The economic order quantity is the re-order quantity. **True**
14. In FIFO method, closing stock is valued at oldest prices of materials. **False**
15. A list of all materials and parts required for a particular job is called production order. **False**
16. The bin card and stores ledger are written up with the same basic documents. **True**
17. ABC analysis is based on the principle of 'management by exception'. **True**
18. Purchase control is exercised by the store-keeper. **False**
19. Purchase requisition Note is prepared by the purchasing department. **False**
20. Purchase order is prepared by the stores department. **False**
21. Purchase order is an order to purchase department. **False**
22. Purchase order is an order to stores department to purchase materials. **False**
23. Material requisition note is prepared by the stores department. **False**
24. FIFO method of pricing results in higher profits during the period of falling prices. **False**
25. Weighted average method of pricing stores involves adding all the different prices and dividing by the number of such prices. **False**
26. Material losses due to fire should be transferred to Costing Profit and Loss A/c. **True**
27. Loss due to evaporation are charged to Costing Profit & Loss Account. **False**
28. Re-order level means the quantity to be ordered. **False**
29. Economic order quantity is that order size at which each of the Ordering Cost and Carrying Cost is minimum. **False**
30. Under the ABC analysis of material control 'A' stands for the highest number of items. **False**
31. The perpetual inventory system enables management to ascertain stock without physical verification. **True**
32. Bin card is the same as stores ledger. **False**
33. Bin card is maintained by Accounts departments. **False**
34. Perpetual inventory system and continuous stock taking are synonymous. **False**
35. Bin card shows the money value of material received issued and the balance at any point of time. **False**
36. Tender form is issued by the purchasing department. **True**
37. Purchase order is prepared by the purchasing department. **True**
38. Orders should automatically be placed with the supplier quoting the lower price. **False**
39. Lack of efficient material control system increases the material cost of the finished product. **True**
40. A bill of material gives a complete list of all materials required with quantities for a particular job. **True**

**Ans:**

- (1) **False;** Stores ledger is maintained in the cost accounting department and not in the stores department.
- (2) **False;** Purchase requisition note is prepared by the requisitioning department, e.g., stores department.
- (3) **True;** Perpetual inventory system keeps the stock balance up to date.
- (4) **False;** Annual stock-taking has nothing to do with perpetual inventory system, rather it is the continuous stock-taking that confirms the proper functioning of the perpetual inventory system.
- (5) **False;** The weighted average method of pricing averages prices after weighting (i.e., multiplying) by their quantities.
- (6) **False;** Bin card shows only the quantity of material and not its value.
- (7) **True;** Breakage of materials due to careless handling is an abnormal loss.
- (8) **False;** Bill of materials is a master requisition listing all the materials required for a given job.
- (10) **True;** Perpetual inventory records are bin card and stores ledger.
- (11) **False;** Under certain special circumstances, the maximum level may be exceeded.
- (14) **False;** Closing stock is valued at the latest prices paid.
- (15) **False;** It is known as Bill of materials.

### 3.Labour Cost

#### **(A)Conceptual**

1. In which of the following incentive plans of wage payment, wages on time basis are NOT guaranteed?

- (a) Halsey plan
- (b) Rowan plan
- (c) **Taylor's differential piece rate system**
- (d) Gantt's task and bonus system

2. Under the high wage plan, a worker is paid

- (a) **at a time rate higher than the usual rate**
- (b) according to his efficiency
- (c) at a double rate for overtime
- (d) normal wages plus bonus

3. Which of the following methods of wage payment is most suitable where quality and accuracy of work is of primary importance?

- (a) Piece rate system
- (b) **Time rate system**
- (c) Differential piece work system
- (d) Halsey premium system

4. Cost of idle time arising due to non-availability of raw materials is

- (a) **charged to Costing profit and loss a/c**
- (b) charged to factory overheads
- (c) recovered by inflating the wage rate
- (d) ignored

5. When overtime is required for meeting urgent orders, overtime premium should be

- (a) Charged to Costing Profit and Loss A/c
- (b) **Charged to overhead cost**
- (c) Charged to respective jobs
- (d) ignored

6. Wage sheet is prepared by

- (a) time-keeping department
- (b) personnel department
- (c) **payroll department**
- (d) cost accounting department

7. Time and motion study is conducted by the

- (a) time-keeping department
- (b) personnel department
- (c) payroll department
- (d) **engineering department**

8. Labour productivity is measured by comparing

- (a) Actual time with standard time
- (b) Total output with total man hours
- (c) Added value for the product with total wage cost
- (d) **All of the above**

9. Labour turnover is measured by

- (a) **Number of workers replaced average number of workers**
- (b) Number of workers left/number in the beginning plus number at the end

- (c) Number of workers joining/number in the beginning of the period.  
(d) All of these

10. Labour turnover is

- (a) Productivity of labour (b) Efficiency of the labour  
(c) **Change in labour force** (d) Total cost of the labour

11. Time study is for

- (a) Measurement of work (b) **Fixation of standard time**  
(c) Ascertainment of actual hours (d) Ascertainment of labour cost

12. 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

13. Over time is

- (a) **actual hours being more than normal time**  
(b) actual hours being more than standard time  
(c) standard hours being more than actual hours  
(d) actual hours being less than standard time

14. Time keeping refers to

- (a) time spent by workers on their job  
(b) **time spent by workers in the factory**  
(c) time spent by workers without work  
(d) time spent by workers off their job

15. Time booking refers to

- (a) **time spent by worker on their job** (b) time spent by workers in the factory  
(c) time spent by workers without work (d) time spent by workers off their job

16. Difference between attendance time and job time is

- (a) Standard Time (b) Overtime (c) Actual Time (d) **Idle time**

17. Piece workers are paid on the basis of

- (a) Output sold (b) **Output produced**  
(c) Output in stock (d) Input received

18. Time wages are paid on the basis of

- (a) **Actual time** (b) Standard time (c) Time saved (d) Overtime

19. Differential piece wages means

- (a) **different wages for different level of performance**  
(b) different wages for different time consumed  
(c) different wages for different types of workers

(d) different wages for different types of industries

20. For calculation of labour turnover under separation method

**(a) only the number of employees left from the organization is considered**

(b) only the number of employees replaced are considered

(c) only the number of employees retrenched are considered

(d) only the number of employees who are new to the organization is considered

21. The cost which is incurred to prevent the labour turnover

(a) Management Cost

(b) Replacement Cost

**(c) Preventive cost**

(d) Compensation Cost

22. Normal idle time

(a) can be avoided

(b) can be minimized

**(c) cannot be avoided**

(d) can be controlled

23. An employee is eligible for getting overtime wage if/she works for more than

(a) 6 hours a day

(b) 8 hours a day

**(c) 9 hours a day**

(d) 12 hours a day

24. Labour productivity cannot be measured by comparing

(a) actual time with standard time

(b) total output with total man hours

(c) added value for the product with total wage cost

**(d) total wage and total output**

25. Wage sheet is prepared by

(a) Time keeping department

(b) Personnel department

**(c) Payroll department**

(d) Cost accounting department

26. Time and motion study is conducted by

(a) Time keeping department

(b) Personnel department

(c) Payroll department

**(d) Engineering department**

27. Comparing Rowan plan and Halsey plan, it is seen that when the time saved is less than 50% of the standard time

**(a) Rowan plan allows more wages to a worker than Halsey plan**

(b) Rowan plan allows less wages to a worker than Halsey plan

(c) Rowan and Halsey plan allow equal wages to a worker

(d) Rowan plan and Halsey plan are equal to ordinary time wage

28. Halsey premium plan is

**(a) Individual incentive scheme**

(b) Group incentive scheme

(c) Time and piece wage system

(d) Differential piece wage system

29. 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) as a proportion of standard time to time saved

30. Number of methods available for calculation of labour turnover is

(a) Two

**(b) Three**

(c) Four

(d) Five

31. Merricks multiple piece rate system has

(a) Two rates

**(b) Three rates**

(c) Four rates

(d) Five rates

32. How many rates are used to calculate wages under Taylor's differential piece rate system?

(a) Two

**(b) Three**

(c) Four

(d) Five

33. When time saved is more than 40% of the standard time, Halsey plan allows

**(a) more wages than Rowan plan**

(b) less wages than Rowan plan

(c) equal wages as compared to Rowan plan

(d) None of the above

34. Wages under Rowan and Halsey plan are exactly when time saved is

(a) nil

**(b) 50% of the standard time**

(c) both (a) and (b)

(d) None of the above

35. Under Gantt's task and bonus plan no bonus is payable to a worker if his efficiency is less than

(a) 50%

(b) 60%

(c) 83.5%

**(d) 100%**

36. Bonus under Halsey plan is paid

**(a) at 50% of time saved**

(b) at 75% of time saved

(c) at 80% of time saved

(d) at 90% of the time saved

37. Overtime premium is paid

**(a) at normal rate**

(b) below the normal rate

(c) at 50% of the normal rate

(d) at double normal rate

38. Under Emerson's efficiency System, no bonus is payable when efficiency is upto

(a) 50%

**(b) 66 2/3%**

(c) 83 1/3%

(d) 100%

**(B) Numerical**

39. When standard output is 10 units per hour and actual output is 12 units per hour, the efficiency is

(a) 80%

(b) 100%

**(c) 120%**

(d) 12%

40-41. Standard output is 100 units per per day of hours, and the piece rates are 20 paise per unit and 15 paise per unit under Taylor's differential piece rate system.

40. What will be amount of wages if a worker produces 95 units in a day?

(a) Rs.14.00

**(b) Rs.14.25**

(c) Rs.18.50

(d) 19.00

41. what will be the amount of wages under Taylor's differential piece rate system. If a worker produces 101 units in a day ?

- (a) 15.15      (b) 20.00      (c) 20.15      **(d) 20.20**

42. Standard time is 60 hours and guaranteed time rate is 30 paise per hour. what is the amount of wages if job is completed in 48 hours ? Rowan plan is in use .

- (a)Rs.24.00      (b)Rs.26.00      **(c)Rs.28.80**      (d)30.00

43. A worker has a time rate of Rs.15/hr. He makes 720 units of a components (standard time : 5 minutes /Unit ) in a week of 48 hours .His total wages including Rowan bonus for the week is

- (a) Rs.792      (b) Rs.820      (c)Rs. 840      **(d)Rs.864**

44. The standard time required per unit of a product is 20 minutes. In a day of 8 Working hours a worker gives an output of 30 Units .IF he gets a time rate of Rs.20/ hr., his total earning under Halsey bonus scheme was:

- (a)Rs.200      (b) Rs.192      **(c) Rs.180**      (d) Rs.160

45. In a company ,the hourly rate of wages guaranteed is 0.50 paise per hours. The standard time for producing 1 dozen articles is 3 hours. The actual time taken by the worker to produced 20 dozen articles is 48 hours .The earning of a worker under Rowan plan is:

- (a) Rs.27      (b) Rs.28      **(c)Rs.28.80**      (d) Rs.30

46. A firm employs 5 worker at an hourly rate of Rs.2.00. during the week ,they worked for four days for a total period of 40 hours each and completed the job for which the standard time was 48 hours for each worker .The labour cost under Halsey bonus plan is:

- (a)Rs.440**      (b)Rs.467      (c) Rs.480      (d)Rs. 420

47. A worker is allowed 10 hours to complete a job on daily wages .He takes 6 Hours to complete the job under a scheme of payment by results .His day rate is Rs.6 per hours and piece rate is Rs.36. The material cost of the product is Rs. 40 and overheads are charged at 150% of the total direct wages the factory the cost of the product under Rowan plan is :

- (a)Rs.130      **(b) 166**      (c) 160      (d)170

#### Hints:

43.  $(48 \times 15) + (12 \div 60 \times 48 \times 15) = 864$

44.  $(8 \times 20) + (2 \times 20 \times 50 \div 100) = 180$

45.  $(48 \times 0.50) + (12 \div 60 \times 48 \times 0.50) = 28.80$

46.  $(200 \times 2) + (50 \div 100 \times 40 \times 2) = 440$

47. i] wages :  $(6 \times 6) + 4 \div 10 \times 6 \times 6 = 50.40,$

ii] Factory cost =  $40 + 50.40 + 150\% \text{ of } 50.40 = 166$

#### Q. 2) FILL IN THE BLANKS

1. ' \_\_\_\_\_ ' means keeping a record of the attendance of the workers and the time spent by them in actual work, idle time , overtime , etc.

2. '\_\_\_\_' means the recording of the spent by a worker on different jobs during his attendance at the factory.
3. The booking is basically performed by preparing a \_\_\_\_ card.
4. '\_\_\_\_' Card is a record of the work done by a worker, indicating the jobs done by him and the time spent against each job .
5. If the Overtime is \_\_\_\_ (normal / abnormal ),it debited to costing Profit & Loss Account.
6. '\_\_\_\_' is the time spent beyond the normal working hours which is usually paid at a higher rate than the normal time rate.
7. \_\_\_\_ time is the difference between the time for which the employees are paid and the employees' time booked against the cost object.
8. Labour efficiency (%) = ( Time allowed as per standard /time \_\_\_\_ ) x 100.
9. Time rate system \_\_\_\_ (is /is not ) suitable in case of quality control .
10. Piece rate system \_\_\_\_ (is/ is not) suitable if the output depends on team work.
11. Under \_\_\_\_ (Time /Piece ) rate system ,worker assured of a steady and regular income.
12. \_\_\_\_ (Time/Piece) rate System treats both efficient and inefficient workers equally.

**Ans:-** 1] Time keeping 2] time booking 3] Job 4] Job 5] Abnormal  
6] Overtime 7] Idle 8] taken 9] is 10] is not 11] Time 12] time

**Q. 3) MATCH THE FOLLOWING COLUMNS .**

Match the terms in A with the statement in B

| <b>COLUMN A (terms)</b>                    | <b>COLUMN B (statement)</b>                                                                                                                                                           |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. High wage plan                          | a] Bonus equal to 30 percent of the wages of time saved .                                                                                                                             |
| 2. Measured day work                       | b] A worker is paid a wage rate which is much higher than the rate prevailing in the area or in the industry. In return he is expected to maintain a very high level of performance . |
| 3. Different time rate                     | c] Bonus equal to 50 percent of the wages of time saved .                                                                                                                             |
| 4. Taylor's differential piece work system | d] Worker are paid bonus @ 75% of the time saved .                                                                                                                                    |
| 5. Gantt task and Bonus system             | e] In the case of repetitive work the time saved is shared between the worker and the foreman in the ratio 5:1.                                                                       |
| 6. Emerson's efficiency system             | f] The hourly rate of the time worker is made up of two parts viz, fixed and variable.                                                                                                |
| 7. Points scheme or Bedeaux system         | g] Minimum time wages are guaranteed .But beyond a certain efficiency level, Bonus in addition to minimum day wages is given.                                                         |
| 8. Hayne's system                          | h] Rewarding efficient worker by providing increased piece rate beyond certain level of output.                                                                                       |
| 9. Accelerated premium system              | i] Combination of time and piece work system .                                                                                                                                        |
| 10. Halsey system                          | j] Earning increase in greater proportion than the increase in production .                                                                                                           |
| 11. Halsey weir system                     | k] Different hourly rates are fixed for different level of efficient .                                                                                                                |

**Ans:-** 1- b, 2-f, 3-k, 4-h, 5-i, 6-g, 7-d, 8- e, 9- i, 10-c, 11-a

**Q.4) STATE WHETHER TRUE OR FALSE.**

1. Payroll department gathers and records each worker's time of arrival and departure for the purpose of attendance. **False**
2. Metal disc method of time-keeping can be profitably used in very large undertaking. **False**
3. In Taylor's differential piece Rate plan, time wages are guaranteed to each worker. **False**
4. Overtime wages are to be paid at double the normal wage rate. **True**
5. Rowan incentive plan distributes the benefit of the saved equally between employees and employer. **False**
6. When wages are paid on piece basis, the quality of work deteriorates. **True**
7. All overtime is not unusual. **True**
8. Cost of idle time due to labour strike should be treated as a factory overheads. **False**
9. Wages of a crane operator in a factory are direct wages. **False**
10. Out-workers are those who are appointed on a temporary basis. **False**
11. When Time-Cum-job card is maintained, there may be no need of keeping a separate Time clock card. **True**
12. Job evaluation is the comparative appraisal of workers on different jobs. **False**
13. Idle time is the difference between time clocked and time booked. **True**
14. Time booking is done by the time-keeper at the factory gate. **False**
15. Time booking is not necessary in the case of piece worker. **False**
16. Direct wage is the fixed cost. **False**
17. In Halsey premium plan, time wages are guaranteed. **True**
18. In Emerson's efficiency System Bonus is paid only when efficiency is 100%. **False**
19. Merrick's Differential piece Rate System is less punitive than Taylor's system. **True**
20. Labour rate is inflated to cover the cost of abnormal idle time. **False**
21. Under the Rowan plan, bonus is a fixed percentage. **False**
22. When the time saved is 50% of the standard time. Both the Rowan and Halsey plan pay the same amount of bonus. **True**
23. The purpose of work measurement is to determine the standard time for doing a task. **True**
24. Clock Card is a useful time booking record. **False**
25. Casual workers are usually indirect workers. **True**
26. Labour productivity automatically increases when production increases. **False**
27. Cost of normal idle time may be treated as production overheads. **True**
28. Overtime premium is always treated as factory overheads. **False**
29. The cost of paid leave to workers is transferred to costing profit & Loss Account. **False**
30. The amount of minimum bonus payable to direct workers should be included in the direct labour cost and that payable to indirect workers should be charged to overheads. **True**
31. Idle time arises when workers are paid on time basis or piece basis. **False**

**Ans:-**

1. **FALSE:** payroll department determines the gross and net amount of earning of each worker.
2. **FALSE:** Metal disc method can be profitably used only in small and medium size concerns.

3. FALSE: Taylor's plan does not guarantee time wages but pays only on the basis of efficiency of workers.
4. TRUE: This is according to Factories Act
5. False: Workers bonus is equal to : Time wages x Time saved
7. TRUE: overtime due to pressure of work or during the seasons in quite usual .
8. FALSE: It should be transferred to costing P & L A/C .
9. FALSE: It is indirect wages as crane helps production only in a general way.
10. FALSE: Out -worker are those who go out of the factory to work.
- 11.TRUE : Time -Cum - Job card shows the attendance records as well as effective time work of each
12. Job evaluation is a comparative appraisal of jobs and not of workers .
14. FALSE: Time booking is done by the supervisor in department .
- 15.FALSE: In addition to calculation of wages of individual workers , time booking is useful in other costing areas .
16. FALSE: Direct wages is a variable cost
18. FALSE: Bonus is payable at efficiency of 66 2/3%.
19. TRUE: Merrick's system has three piece rates and none of the rates is fixed below the normal .
20. FALSE: Cost of abnormal idle time is transferred to costing profit and loss Account .
21. False: Bonus percentages varies according to the time saved .
24. FALSE : Clock card is a time- keeping records.
26. FALSE: Increase in production may or may not be accompanied by increase in labour productivity.
28. FALSE: Treatment of overtime premium depend upon the purpose of overtime.
29. FALSE: Wages for leave period is treated as indirect labour cost and charged to factory overheads.
31. FALSE: Idle time arise only in case of workers paid on the time basis.

#### 4. Overheads

##### **Q.1: Multiple Choice Questions**

1. The allotment whole items of cost to cost centres or cost units is called  
 (a) **Cost allocation** (b) Cost apportionment  
 (c) Overhead absorption (d) None of the above
2. Packaging cost is a  
 (a) Production cost (b) Selling Cost  
 (c) Distribution cost (d) **It may be any of the above**
3. Directors' remuneration and expenses from a part of  
 (a) Production overhead (b) **Administration overhead**  
 (c) Selling overhead (d) Distribution overhead
4. Salary of a foreman should be classified as a  
 (a) Fixed overhead (b) Variable overhead  
 (c) **Semi-fixed or semi-variable overhead**

5. Charging to a cost centre those overheads that result solely from the existence of that cost centre is known as

- (a) **Allocation**      (b) Apportionment      (c) Absorption      (d) Allotment

6. Absorption means

- (a) Charging of overheads to cost centre  
(b) Charging of overheads to cost units  
(c) **Charging of overheads to cost centres or cost unit**

7. Which method of absorption of factory overheads do you suggest in concern which produces only one uniform item of product?

- (a) Percentage of direct wages basis      (b) Direct labour hour rate  
(c) Machine hour rate      (d) **A rate per unit of output**

8. When the amount of under or over-absorption is significant, it should be disposed of by

- (a) Transferring to Costing profit and loss A/c  
(b) **The use of supplementary rates**  
(c) Carrying over as a deferred charge to the next accounting year  
(d) None of the above

9. When the amount of overhead absorbed is less than the amount of overhead incurred, it is called

- (a) **Under-absorption of overhead**      (b) Over-absorption of overhead  
(c) Proper absorption of overhead

10. Bad debts is an example of

- (a) Production overhead      (b) Administration overhead  
(c) **Selling overhead**      (d) Distribution overhead

11. Number of workers employed is used as a basis for this apportionment of

- (a) Time office costs      (b) Canteen expenses  
(c) Personnel department expenses      (d) **Any of these**

12. Which of the following is a scientific and accurate method of absorption of factory overheads

- (a) Percentage on prime cost      (b) Selling overhead  
(c) **Distribution overhead**      (d) None of these

13. Warehouse expenses is an example of

- (a) Production overhead      (b) Selling overhead  
(c) **Distribution overhead**      (d) None of the above

14. selling and distribution overheads are absorbed on the basis of

- (a) Rate per unit      (b) Percentage on work cost  
(c) percentage on selling price of each unit      (d) **any of these**

15. The least suitable basis for applying overheads is

- (a) material consumed (b) direct labour cost  
(c) direct labour hours (d) machine hours

16. which of the following is referred to as primary distribution of overheads –

- (a) reapportioning service dept. overheads to other production dept.  
(b) reapportioning production dept. overheads to other production dept.  
**(c) apportioning and allocating overheads to all department on a suitable basis.**  
(d) reapportioning service dept. overheads to production dept.

17. Expenses such as rent and depreciation of a building shared by several department are .

- (a) Indirect expenses** (b) direct expenses  
(c) joint expenses (d) all of the above

18. Overheads expenses can be classified according to

- (a) functions (b) Elements  
(c) Behaviour **(d) all of the above**

19. The term cost allocation is described as

- (a) The costs that can be identified with specific cost centres**  
(b) The costs that cannot be identified with specific cost centres  
(c) The total cost of factory overheads needed to be distributed among specific cost centres  
(d) None of the given option

20. The distribution of overheads allotted to a particular department or cost centres over the units produced is called

- (a) Allocation (b) Apportionment **(c) absorption** (d) departmentalization

21. If an item of overhead expenditure is charged specifically to a single department this would be an example of

- (a) Apportionment **(b) allocation**  
(c) re-apportionment (d) absorption

22. Which of the following does not match ?

- | <b>Item cost</b>                   | <b>Basis of cost allocation</b>   |
|------------------------------------|-----------------------------------|
| (a) Power                          | H.P of machine                    |
| <b>(b) Supervision of building</b> | <b>Value of material consumed</b> |
| (c) Insurance of building          | Area occupied                     |
| (d) Time-keeping                   | Number of employees               |

23. Which of the following costs is not a factory overheads expense ?

- (a) Depreciation of equipment used in the research department**  
(b) Salary of quality control inspector  
(c) Overtime premium paid to direct labour  
(d) Machine maintenance cost

24. which of the following bases would be most appropriate to apportion the costs of electric power to factory department ?

- (a) Number of outlet points
- (b) amount metered out**
- (c) Cubic capacity of premises
- (d) kilowatt capacity of machine in department

25. Which of the following is not a means whereby factory overheads can be charged out to production ?

- (a) Direct labour rate
- (b) Overtime rate**
- (c) machine hour rate
- (d) Blanket rate

26. Which of the following bases is not appropriate for apportionment of Transport departments cost ?

- (a) Crane hours
- (b) crane value**
- (c) truck mileage
- (d) truck value

27. A typical factory overhead cost is

- (a) Distribution
- (b) Internal audit
- (c) compensation of plant manger**
- (d) Design

28. In which of the following centres factory Oh cost is NOT incurred ?

- (a) Production center
- (b) service center
- (c) General cost center
- (d) Head office**

29. which of the following cannot be used as a base for the determination of overheads absorption rate ?

- (a) Number of units produced
- (b) Prime cost
- (c) conversion cost
- (d) Discount allowed**

30. Production OH absorption rate is calculated by the way of

- (a) estimated production OH cost/direct labour hours.
- (b) Estimated production OH cost/no of units produced
- (c) Estimato production OH cost /prime cost
- (d) All of the given option**

31. If an item of overhead expenditure was not charged specifically to a single department this would be an example of

- (a) **Apportionment**
- (b) Allocation
- (c) Re-apportionment
- (d) Absorption

32. Which of the following is TRUE regarding the use of blanket rate?

- (a) The use of a single blanket rate makes the apportionment of overhead costs unnecessary**
- (b) The use of a single blanket rate makes the apportionment of overhead costs necessary
- (c) The use of a single blanket rate makes the apportionment of overhead costs uniform
- (d) None of the given options

33. Functionally, administration expenses may comprise expenses of the following activities

- (a) Secretarial and board of directors
- (b) Accounting, financing, tax and legal

(c) Audit and personnel (d) All of these

34. Which of the following is not an example of marketing overheads?  
 (a) **Salary of the foreman** (b) publicity expenses  
 (c) Salaries of sales staff (d) Secondary packing charges

35. Analysis of selling and distribution overheads is done by  
 (a) Nature of expenses and functions  
 (b) Areas, products and salesmen  
 (c) Types of customer and channels of distribution  
 (d) **All of the above**

36. Selling and distribution overhead does not include  
 (a) Cost of warehousing (b) Repacking cost  
 (c) Transportation cost (d) **Demurrage charges**

### B] Numerical

37. A business always absorbs its overheads on labour hours. In the current month, 18,000 hours were worked, actual overheads were Rs. 2,79,000 and there was Rs. 36,000 over-absorption. The overhead absorption rate per hour was  
 (a) Rs. 15.50 (b) **Rs. 17.50** (c) Rs. 18.00 (d) Rs. 13.50

38. B Ltd. Estimated that during the year 75,000 machine hours would be used and it has been using an overhead absorption rate of Rs. 6.40 per machine hour in its machining department. During the year overhead expenditure amounted to Rs. 4,72,560 and 72,560 and 72,600 machine hours were used. Which one of the following statements is correct?  
 (a) **Overhead was under-absorbed by Rs. 7,440**  
 (b) Overhead was under-absorbed by Rs. 7,920  
 (c) Overhead was over-absorbed by Rs. 7,440  
 (d) Overhead was under-absorbed by Rs. 7,920

39. J Limited's budgeted overhead in the last period was Rs. 1,70,000. Its overhead absorbed and incurred for the same period were Rs. 1,80,000 and Rs. 1,95,000 respectively. What is its amount of over-or under-absorption of overhead?  
 (a) **Under-absorption of Rs. 15,000** (b) Under-absorption of Rs. 25,000  
 (c) Over-absorption of Rs. 15,000 (d) Over-absorption of Rs. 25,000

### Q.2] MATCH THE FOLLOWING COLUMNS

A]

| COLUMN A                 | COLUMN B                           |
|--------------------------|------------------------------------|
| A. Advertisement         | 1. Value of goods in transit       |
| B. Credit and collection | 2. Floor area occupied             |
| C. Warehouse rent        | 3. A percentage of cash collection |
| D. Royalties             | 4. No. of orders                   |
| E. Bad debts             | 5. Sales value                     |
| F. Transit insurance     | 6. Direct allocation               |

Ans:- A-5; B - 4; C- 2; D- 6; E- 3; F- 1

B]

| COLUMN A                     | COLUMN B                      |
|------------------------------|-------------------------------|
| A. Canteen                   | 1. Value of stock             |
| B. Electric lighting         | 2. Assets value               |
| C. Fire prevention in stores | 3. No. of employees           |
| D. Rent, rates, etc.         | 4. No. of requisition handled |
| E. E .Plant depreciation     | 5. Technical estimate         |
| F. Power                     | 6. Total wages                |
| G. Accident insurance        | 7. No. of light points        |
| H. Storage costs             | 8. Area                       |

Ans:- A- 3; B- 7; C- 1; D-8; E-2; F- 5; G-8; H-4

### Q.3) STATE WHETHER TRUE OR FALSE

1. Factory overhead includes all production costs other than direct materials and salaries. **False**
2. Departments that assist producing departments indirectly are called service departments. **True**
3. Factory overhead cost applied to a job is usually based on a pre-determined rate. **True**
4. Variable overhead vary with time. **False**
5. When actual overheads are more than absorbed overheads, it is known as over-absorption. **False**
6. Carriage inwards is not really an overhead at all, but is a direct cost. **True**
7. Cash discounts are generally excluded completely from the costs. **True**
8. Cost of inwards is not really an overhead at all, but is a direct cost. **False**
9. When the amount of over-or under-absorbed is quite large, it is transferred to Costing profit and Loss Account. **False**
10. A blanket overhead rate is a single overhead rate computed for the entire factory. **True**
11. Wages of delivery van drivers is a selling overhead. **False**
12. Under-absorption of overheads means that actual overheads are more than absorbed overhead. **True**
13. Rent is not included in cost when premises are owned by the company. **False**
14. Where direct labour rates vary widely, direct labour cost would be more suitable than direct labour hours in applying factory overheads. **True**
15. Examples of factory overhead are salary of plant manager and departmental heads, depreciation and wages of foreman. **True**
16. The principle based used for applying factory overhead are; units of production, material cost, direct wages, direct labour hours and machine hours. **True**
17. The application of predetermined overhead rates is a reason for the difference in costing and financial profit or loss. **True**
18. Allocation of overhead implies the identification of overhead cost centres to which they relate. **True**
19. Apportionment of overhead is the allotment of whole items of cost to cost centres or cost units. **False**
20. Overhead absorption is the allotment of overhead to cost units. **True**

21. The word 'allocation' 'apportionment' 'allotment' have exactly the same meaning in costing. **False**
22. It is better to use blanket rate for overhead absorption where several products passing through a number of different producing departments are manufactured. **False**
23. The use of actual overhead absorption rates results in delay in determining cost of products. **True**
24. Blanket rate of overhead absorption may be suitably applied in small firms which are manufacturing a single product. **True**
25. Direct labour cost method of absorption of factory overhead is suitable only in those departments where work is done by manual labour. **False**
26. Rate per unit of production is the easiest and most suitable of all the method of absorption. **False**
27. Percentage on direct materials method of absorption of factory overhead can be suitably used only where one kind of article is produced and material prices remain more or less constant. **True**
28. Machine hour rate is separately computed for each machine. **True**
29. Machine hour methods absorbing overhead can be adopted only for those department in which work is mainly done by machines. **True**
30. Administration overhead results in under-statement of cost. **False**
31. Under-absorption of overhead results in under-statement of cost. **True**
32. Where normal business cycle extends over more than one year the amount of under or over-absorbed overheads may be carried forward to be charged to the next accounting year. **True**
33. When the amount of under or over-absorbed overheads is significant, it is equitably apportioned to work in progress, finished stock and cost of sales. **True**
34. Packing cost is a distribution cost. **False**
1. False; Factory overhead includes all items other than direct materials, direct wages and direct expenses.
  4. False; Variable overheads vary with production.
  5. False; When actual overheads are less than absorbed overheads, it is known as over-absorption.
  6. True; It is a direct cost in the sense that it is added to the purchase price of materials.
  7. True; Cash Discount is a form of interest and as such is a financial item.
  8. False; Cost of indirect materials is allocated and not apportioned.
  9. False; It is disposed of by the use of supplementary rates.
  10. True; It is calculated by factory overheads dividend by total units of base throughout the factory.
  11. False; It is a distribution overhead and not a selling overhead.
  12. True: When actual overheads are more than absorbed overheads or, in other words, when overheads absorbed are less than actual amount of overheads, it is known as under-absorption.
  13. False; When premises are owned by the company, a charge in lieu of rent is made in cost accounts.
  14. False; When labour rates vary widely, direct labour hours may be more suitable than direct cost as a basis of absorption.

17. True; This is because overhead applied at predetermined rate will be different from that of actual amount of overhead.
19. False; Apportionment is the allotment of the proportions of items to cost centres or cost units.
21. False; In the terminology of costing, these terms have different meanings.
22. False; In such a case it is better to use in multiple rates.
25. False; This method is suitably used in any departments.
26. False; This method is suitable only in certain industries like mining, brick laying, shoe industries etc.
30. False; Administration overheads are usually absorbed as a percentage of works cost.
34. False; Packing cost may be a manufacturing cost, selling cost or distribution cost, depending upon the purpose of packing.

**HERAMB**

## 5. Classification of Costs and Cost Sheets

### Q.1. A] Multiple choice Questions

#### a) Conceptual

1. Form of specific order costing where work is undertaken to customer's special requirements and each order is comparatively of short duration.

- (a) **Job Order Costing**            (b) Batch Costing  
(c) Contract Costing            (d) Process Costing

2. Form of specific order costing which consists of a group of similar articles which maintain its identity throughout one or more stages of production.

- (a) Job Order Costing            (b) **Batch Costing**  
(c) Contract Costing            (d) Process Costing

3. Which of the following items is not included in preparation of a cost sheet?

- (a) Carriage inward            (b) Purchase returns  
(c) Sales commission            (d) **Interest paid**

4. Which of the following items is not excluded while preparing a cost sheet?

- (a) Goodwill written off            (b) Provision for taxation  
(c) **Property tax on Factory Building**            (d) Transfer to reserves

5. Which of the following are direct expenses?

- (i) The cost of special designs, drawing or layouts  
(ii) The hire of tools or equipment for a particular job  
(iii) Salesman's wages  
(iv) Rent, rates and insurance of a factory  
(a) **(i) and (ii)**            (b) (i) and (iii)  
(c) (i) and (iv)            (d) (iii) and (iv)

6. A company has to pay Rs. 10,000 per unit royalty to the designer of a product which it manufactures and sells. The royalty charge would be classified as a

- (a) **Direct expense**            (b) Production overhead  
(c) Administrative overhead            (d) Selling overhead

7. Wherever part of the manufacturing operation is subcontracted, the subcontract charges related to materials shall be

- (a) ignored            (b) treated as cost of materials  
(c) treated as works overheads            (d) **treated as direct expenses**

8. Research and development cost relating to an existing product

- (a) shall be treated as Capital Expenditure  
(b) shall be treated as deferred revenue expenditure  
(c) **shall be treated as Direct Expenses**  
(d) shall be ignored



18. In the cost sheet, income from sale of empty containers used for dispatch of the goods produced shall be

- (a) added to cost of production
- (b) deducted from cost of production**
- (c) added to sales
- (d) ignored

19. In the cost sheet, abnormal costs e.g. due to accident shall be

- (a) added to cost of production
- (b) deducted from
- (c) deducted from sales
- (d) ignored**

20. Direct materials + Direct labour + Direct expenses = \_\_\_\_\_

- (a) works cost
- (b) cost of production
- (c) Cost of sales
- (d) Prime cost**

21. Prime cost + Factory overhead + Administration overhead = \_\_\_\_\_

- (a) Works cost
- (b) Cost of production**
- (c) Prime Cost
- (d) Cost of sales

22. Prime cost + Factory overhead = \_\_\_\_\_

- (a) Fixed Cost
- (b) Works cost**
- (c) Cost of production
- (d) Cost of goods sold

23. Total cost – Selling and Distribution overheads = \_\_\_\_\_

- (a) Cost of goods sold
- (b) Closing stock
- (c) Cost of production**
- (d) Net profit

24. Cost of production – Administration overheads = \_\_\_\_\_

- (a) Prime Cost
- (b) Cost of sales
- (c) Works cost**
- (d) Work-in-progress

25. Prime cost + Overheads = \_\_\_\_\_

- (a) Works cost
- (b) Total cost**
- (c) Cost of sales
- (d) Cost of production

26. Total cost + Profit = \_\_\_\_\_

- (a) Selling price**
- (b) Cost of goods sold
- (c) Selling and distribution overheads
- (d) Gross profit

### B Numerical

27. From the following details, compute **cost of goods manufactured**: Cost of goods sold Rs. 2,00,000; Opening stock of finished goods Rs. 50,000; Closing stock of finished goods Rs. 1,00,000 and Closing stock of work-in-progress Rs. 10,000.

- (a) Rs.2,00,000
- (b) Rs. 2,50,000**
- (c) Rs. 2,40,000
- (d) Rs. 3,00,000

28. The opening stock of finished goods is Rs. 50,000; closing stock of finished goods is Rs.1,00,000 and the cost of goods manufactured is Rs. 2,00,000. What is **cost of goods sold**?

- (a) Rs. 2,00,000  
(b) Rs. 2,50,000  
(c) Rs. 1,00,000  
(d) **Rs. 1,50,000**

29. Vinayaka Ltd. Furnishes the following information for a period, pertaining to its product "T":

Cost of production (for 11,000 units) Rs. 44,000

Selling expenses (per unit) Rs. 0.40

Sales (for 9,000 units) Rs. 54,000

The **profit per unit** of the product was

- (a) Rs. 1.15  
(b) Rs. 1.20  
(c) Rs. 2.60  
(d) **Rs. 1.60**

30. For product A of Shilpa Ltd., the prime cost is Rs. 20 per unit, factory overheads are 20% of prime cost and administration overheads are 25% of works cost. If the company desires to earn a profit of 25% on selling price, the selling price per unit of product A would be

- (a) **Rs. 40**  
(b) Rs. 33  
(c) Rs. 90  
(d) Rs. 30

31. M & Co. used in a particular year Rs. 3,00,000 of direct materials. The year-end direct material inventory was Rs. 50,000 more than it was at the beginning of the year. Calculate **direct material purchases**.

- (a) Rs. 3,00,000  
(b) Rs. 2,50,000  
(c) **Rs. 3,50,000**  
(d) Rs. 4,00,000

32. Consider the following:

Raw material used Rs. 1,40,000

Direct labour Rs. 5,00,000

Total manufacturing overhead Rs. 6,00,000

Beginning work-in-progress Rs. 15,000

Cost of goods sold Rs. 12,05,000

What is the value of the closing work-in-progress?

- (a) Rs. 65,000  
(b) Rs. 35,000  
(c) **Rs. 50,000**  
(d) Rs. 70,000

33. R Company manufactures desks. The beginning balance of Raw Material Inventory was Rs. 4,500; raw material purchases of Rs. 29,600 were made during the month. At month end, Rs. 7,700 of raw material was on hand. Raw material used during the month was

- (a) **Rs. 26,400**  
(b) Rs. 34,100  
(c) Rs. 37,300  
(d) Rs. 29,600

34. M company manufactures tables. If raw material used was Rs. 80,000 and Raw Material Inventory at the beginning and end of the period, respectively, was Rs. 17,000 and Rs. 21,000, what was the amount of raw material purchased?

- (a) Rs. 76,000 (b) Rs. 1,18,000  
 (c) Rs. 84,000 (d) Rs. 1,01,000

35. T Company manufactures computer stands. What is the opening stock of Finished Goods if Cost of Goods sold is Rs. 1,07,000; the ending balance of Finished Goods Inventory is Rs. 20,000; and Cost of Goods Manufactured is Rs. 50,000 less than Cost of Goods sold?

- (a) Rs. 70,000 (b) Rs. 77,000  
 (c) Rs. 1,57,000 (d) Rs. 1,27,000

### Q.2] FILL IN THE BLANKS

- 1) The variable production overheads shall be absorbed in production cost based on \_\_\_\_\_ (actual/normal) capacity.
- 2) Any demurrage charges levied by transport \_\_\_\_\_ (shall/shall not) form part of the cost of materials.
- 3) Subsidy receivable with respect to any material shall be \_\_\_\_\_ (added to/ reduced from) cost of materials.
- 4) Cost of primary packing materials \_\_\_\_\_ (shall/shall not) form part of the cost of production.
- 5) Cost of secondary packing materials shall form part of \_\_\_\_\_ (works/distribution) overheads.
- 6) Material Cost \_\_\_\_\_ (includes/excludes) cost of procurement, freight inwards, taxes & duties, insurance etc. directly attributable to the acquisition.
- 7) Trade discounts, rabates, dutydrawbacks, refunds on account of modvat, cenvat, sales tax and other similar items are \_\_\_\_\_ (added/deducted) in determining the costs of material.
- 8) Labour cost \_\_\_\_\_ (includes/excludes) salaries and wages paid to temporary employees.
- 9) Labour cost \_\_\_\_\_ (includes/excludes) salaries and wages paid to temporary employees of the contractor.
- 10) Production 15,000 units, Closing Stock of finished Goods 8,000 units. Opening Stock 3,000 units, Cost of Sales @ Rs. 15 per unit, profit @ 25% on sales. Sales amount to Rs. \_\_\_\_\_.
- 11) Sales Rs. 2,40,000, Opening Stock 200 units, and Closing Stock 2,200 units, Selling Price Rs. 30 per unit. The number of units produced \_\_\_\_\_.
- 12) Prime Cost Rs. 4,77,000, Direct Labour Cost Rs. 2,90,000, Direct Expenses Rs. 7,000; Cost of Raw-materials consumed is Rs. \_\_\_\_\_.
- 13) Prime Cost Rs. 72,000, Direct Material Cost Rs. 45,000, Direct Expenses Rs. 12,000. Direct Labour Cost is Rs. \_\_\_\_\_.
- 14) Work Cost Rs. 80,000, Factory Overheads Rs. 8,000. Prime Cost is Rs. \_\_\_\_\_.
- 15) Direct Labour Cost Rs. 17,500 being 175% of works overheads. Factory overheads are Rs. \_\_\_\_\_.
- 16) Cost of Goods produced Rs. 2,00,000, Office & Administrative Overheads 25% of Works Cost. Works Cost is Rs. \_\_\_\_\_.
- 17) Works Cost Rs. 1,00,000 being 25% of Work Cost. Cost of goods produced is Rs. \_\_\_\_\_.
- 18) Office & Adm. Overheads Rs. 1,00,000 being 25% of Work Cost. Cost of goods produced is Rs. \_\_\_\_\_.
- 19) Sales Rs. 1,20,000 Profit 20% on Sales. Costs of Sales are Rs. \_\_\_\_\_.

- 20) Sales Rs.1,20,000 Profit 20% on cost. Cost of Sales are Rs. \_\_\_\_\_.
- 21) Cost of Sales Rs. 1,20,000, Profit 20% on Sales. Profit is Rs. \_\_\_\_\_.
- 22) Sales Rs. 1,20,000, Profit 20% on cost. Profit is Rs. \_\_\_\_\_.
- 23) Cost of Sales Rs. 1,20,000, Profit 20% on Sales. Sales amount to Rs. \_\_\_\_\_.
- 24) Profit @ 20% on Cost amounted to Rs. 20,000. Sales amount to Rs. \_\_\_\_\_.

**Answers:** [1] actual [2] shall not [3] reduced from [4] shall [5] distribution [6] includes [7] deducted [8] includes [9] includes [10] 2,00,000 [11] 10,000 [[12] 1,80,000 [13] 15,000 [14] 72,000 [15] 10,000 [16] 1,60,000 [17] 1,25,000 [18] 5,00,000 [19] 96,000 [20] 1,00,000 [21] 30,000 [22] 20,000 [23] 1,50,000 [24] 1,20,000

### MATCH THE FOLLOWING

A]

| COLUMN A (Method)                                                                                                                                             | COLUMN B (Applicable)                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Job costing<br>2. Batch Costing<br>3. Contract Costing<br>4. Single or Output Costing<br>5. Process Costing<br>6. Operating Costing<br>7. Multiple Costing | a. Where Job is large and executed on site (not in-house)<br>b. Ascertainment of Costs in cases where services are rendered<br>c. The cost of production at each stage is ascertained separately<br>d. Where all costs can be directly charged to a specific job<br>e. Combination of two or more methods of costing<br>f. Where all costs can be directly charged to a group of products<br>g. Cost ascertainment for a single product |

Ans:- [1-d], [2-f], [3-a], [4-g], [5-c], [6-b], [7-e]

B]

| COLUMN A (Industry)                                                                                         | COLUMN B (Costing Method)                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Transport<br>2. Steel<br>3. Coal<br>4. Toy-making<br>5. T.v.<br>6. Advertising<br>7. Bridge Construction | a. Unit Costing<br>b. Job Costing<br>c. Multiple Costing<br>d. Operating Costing<br>e. Contract Costing<br>f. Process Costing<br>g. Batch Costing |

Ans:- [1-d], [2-f], [3-a], [4-g], [5-c], [6-b], [7-e]

C]

| COLUMN A (Industry)                                  | COLUMN B (Costing Method)                                   |
|------------------------------------------------------|-------------------------------------------------------------|
| 1. Automobile<br>2. Cement<br>3. Petroleum<br>4. Gas | a. Kilometres<br>b. Cubic Metres<br>c. Tonnes<br>d. Numbers |

|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| 5. Electricity<br>6. Transport<br>7. Flour | e. Litres<br>f. Sacks<br>g. Kilowatts |
|--------------------------------------------|---------------------------------------|

Ans:- [1-d], [2-c], [3-e], [4-b], [5-g], [6-a], [7-f]

D]

| COLUMN A<br>(Industry)                                                                                           | COLUMN B<br>(Costing Method)                                                                                              |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1. Liquor<br>2. Bricks<br>3. Colth<br>4. Carpets<br>5. Pencils<br>6. Cotton<br>7. Timber<br>8. Shoes<br>9. Paper | a. Pairs<br>b. Barrels<br>c. Ream<br>d. Bales<br>e. Square feet<br>f. Metres<br>g. 1,000 No.<br>h. Cubic feet<br>i. Gross |

Ans:- [1-b], [2-g], [3-f], [4-e], [5-i], [6-d], [7-h], [8-a], [9-c]

E]

| COLUMN A                                                                                                                                                                                                                                                                                           | COLUMN B                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Temporary labor employed to increase production<br>2. Uniforms of sanitary workers<br>3. Salary of the accountant<br>4. Consultation fee of advertisement designer<br>5. Rent of godown for storing finished goods<br>6. Loss due to accidental falling of the roof of a section of the factory | a. Administration overheads<br>b. Costing Profit & Loss items<br>c. Distribution overheads<br>d. Prime Cost<br>e. Selling overheads<br>f. Factory overheads |

Ans:- [1-d], [2-f], [3-a], [4-e], [5-c], [6-b]

F]

| COLUMN A                                                                                                                                                                                                                                                                                            | COLUMN B                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Freight on purchase of raw material<br>2. Raw Material, Godown, Chowkidar salary<br>3. Remuneration for legal advice<br>4. Secondary packing with the name of the company<br>5. Packing of boxes of finished product in wooden crates for transportation<br>6. Dividends received on investments | a. Selling overheads<br>b. Prime cost<br>c. Factory overheads<br>d. Costing Profit & Loss items<br>e. Administration overheads<br>f. Distribution overheads |

Ans:- [1-b], [2-c], [3-e], [4-a], [5-f], [6-d]

G]

| COLUMN A                                                                                                                                                                                                       | COLUMN B                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1. Income from sale of bags in which raw materials were procured<br>2. Rent of godown for storing raw materials<br>3. Primary packing to keep the product crisp<br>4. Bad debts<br>5. Cost of stolen materials | a. Prime Cost<br>b. Selling overheads<br>c. Factory overheads<br>d. Costing Profit & Loss items<br>e. Administration overheads |

**Ans:- [1-a], [2-c], [3-e], [4-b], [5-d]**

**H]**

| COLUMN A                                                                                                                                                                                                                                            | COLUMN B                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1. Carriage inward<br>2. Depreciation of patterns and dies<br>3. Amount paid to lawyer for appearing before a labour Tribunal<br>4. Commission paid to salesman as a percentage of sale price<br>5. Allowance made to customers for late deliveries | a. Costing Profit & Loss items<br>b. Prime cost<br>c. Selling overheads<br>d. Factory overheads<br>e. Administration overheads |

**Ans:- [1-b], [2-d], [3-e], [4-c], [5-a]**

**I]**

| COLUMN A                                                                                                                                                                                                                                                                                                                                                                                                                           | COLUMN B                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Abnormal Loss of Raw-materials<br>2. Abnormal Loss of Finished Output<br>3. Scrap value of Abnormal Loss of Raw-materials<br>4. Cost of rectification on Normal defective output<br>5. Cost of rectification of Abnormal defective output<br>6. Cost of Normal Idle Time in factory<br>7. Royalty on units produced<br>8. Royalty on units sold<br>9. Insurance of raw-material<br>10. Special Moulds for casting taken on hire | a. Not shown in cost sheet but credited to Profit & Loss Account<br>b. Treated as Direct Expense<br>c. Not shown in cost sheet but debited to Profit & Loss Account<br>d. Deducted from the cost of material purchased<br>e. Treated as Direct expenses<br>f. Treated as part of Selling & Distribution Expenses<br>g. Added to the Cost of Materials purchased<br>h. Added to Factory Cost<br>i. Deducted from the cost of goods produced<br>j. Treated as part of factory expenses |

**Ans:- [1-d], [2-i], [3-a], [4-h], [5-c], [6-j], [7-b], [8-f], [9-g], [10-e]**

**J]**

| COLUMN A                                                                                                                                                                                                                                                                                     | COLUMN B                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Scrap value of Normal Loss of Raw-materials<br>2. Scrap value of Normal Loss of Finished Output<br>3. Cash Discount Received<br>4. Cost Discount Received<br>5. Hire of Special Tools<br>6. Drawing Office Expenses<br>7. Secondary Packing Materials<br>8. Estimating Expenses of Tender | a. Not shown in cost sheet but debited to Profit & Loss Account<br>b. Treated as part of Factory Expenses<br>c. Deducted from the cost of goods produced<br>d. Treated as Direct Expenses<br>e. Not shown in cost sheet but credited to Profit & Loss Account<br>f. Treated as part of Selling Expenses<br>g. Treated as part of Distribution Expenses<br>h. Deducted from the cost of materials purchased |

**Ans:- [1-h], [2-c], [3-e], [4-a], [5-d], [6-b], [7-g], [8-f]**

**K]**

| COLUMN A                                                                 | COLUMN B                                                        |
|--------------------------------------------------------------------------|-----------------------------------------------------------------|
| 1. Primary Packing Materials Consumed<br>2. Captive Power Plant Expenses | a. Not shown in cost sheet but debited to Profit & Loss Account |

|                                                                                                                                                                                       |                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Cash Discount Allowed<br>4. Scrap value of Abnormal Loss of Finished Output<br>5. Cost of Free Samples of Products Distributed<br>6. Depreciation on Computer purchased for Office | b. Forms part of Office & Adm. Expenses<br>c. Forms part of Selling expenses<br>d. Treated as part of Factory Expenses<br>e. Treated as Direct Expenses<br>f. Not shown in cost sheet but credited to Profit & Loss Account |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Ans:- [1-e], [2-d], [3-a], [4-f], [5-c], [6-b]  
L]

| COLUMN A                                                                                                                                                                                                               | COLUMN B                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Direct materials<br>2. Direct labour<br>3. Direct expenses<br>4. Finance cost<br>5. Research and development expenses<br>6. Selling and distribution cost<br>7. Administration cost<br>8. Indirect production costs | a. Interest on bank overdraft<br>b. Maintenance contract for office photo copying machine<br>c. Developing new product in laboratory<br>d. Carriage on purchase of raw materials<br>e. Royalty paid on number of units of a particular product produced<br>f. Road licences for delivery vehicles<br>g. Lubricants for machine<br>h. Wages of machine operators in factory |

Ans:- [1-d], [2-h], [3-e], [4-a], [5-c], [6-f], [7-b], [8-g]

### Q.3.STATE WHETHER TRUE OF FALSE

1. Factory Cost = Prime + All Indirect Costs
2. Prime Cost = Direct Cost **TRUE**
3. Total Cost = Prime Cost + All Indirect Costs **TRUE**
4. Cost of Production = Factory Cost + Selling & Distribution overheads. **FALSE**
5. Cost of Sales = Factory Cost + Selling & Distribution Overheads. **FALSE**
6. Closing stock of work-in-progress should be valued on the basis of cost of sales. **FALSE**
7. Closing stock of finished goods should be valued on the basis of cost of sales. **FALSE**
8. Selling and distribution overheads are incurred on the cost of production of goods produced. **FALSE**
9. Selling and distribution overheads are recovered on the basis of percentage to cost of production. **FALSE**
10. Primary packaging cost is included in distribution cost. **FALSE**
11. Production cost includes only direct costs related to the production. **FALSE**
12. Primary packaging cost is included in distribution cost. **FALSE**
13. Secondary packaging cost is not production but distribution cost. **TRUE**
14. The combined total of labor and overhead is called prime cost. **FALSE**
15. Administration cost is not included in the cost of work-in-progress. **TRUE**
16. Raw material inventory consists of products partially completed at the end of a period. **FALSE**
17. Overheads include only fixed cost. **FALSE**
18. Cost of production is equal to prime cost plus works cost. **FALSE**
19. Abnormal Loss of Material is treated as part of material cost. **FALSE**

20. In cost sheet, Stocks of Work-in-progress are adjusted with Works Cost to arrive at Office Cost. **FALSE**
21. In a Cost Sheet, Stocks of Finished Goods are adjusted with Gross Works Cost to arrive at net Works Cost. **FALSE**
22. In a Cost Sheet, Stocks of Finished Goods are adjusted with Gross Works Cost to arrive at net Works cost. **FALSE**
23. In a Cost Sheet, Selling & Distribution Overheads are added to Factory Cost to arrive at Cost of Sales. **FALSE**
24. In a Cost Sheet total Selling & Distribution Overheads are divided by the total number of units produced to arrive at selling & distribution overheads per unit. **FALSE**
25. Interest is shown in the cost sheet. **FALSE**

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## 6. Reconciliation of cost and Financial Accounts

### Q.1. Multiple Choice Questions

1. In Reconciliation Statement, Expenses shown only in Financial Accounts are  
(a) **added to financial profit** (b) deducted from financial profit  
(c) ignored (d) added to costing profit
2. In Reconciliation Statement, Expenses shown only in Cost Accounts are  
(a) added to financial profit (b) **deducted from financial profit**  
(c) ignored (d) added to costing profit
3. In Reconciliation Statement, transfers to reserves are  
(a) **added to financial profit** (b) deducted from financial profit  
(c) ignored (d) added to costing profit
4. In Reconciliation Statement, Incomes shown only in Financial Accounts are  
(a) added to financial profit (b) **deducted from financial profit**  
(c) ignored (d) added to costing profit
5. In Reconciliation Statement, Closing Stock Undervalued in Financial Accounts is  
(a) **added to financial profit** (b) deducted from financial profit  
(c) ignored (d) added to costing profit
6. In Reconciliation Statement, Closing Stock Overvalued in Financial Accounts is  
(a) added to financial profit (b) **deducted from financial profit**  
(c) ignored (d) deducted from costing profit
7. In Reconciliation Statement, Opening Stock Overvalued in Financial Accounts is  
(a) **added to financial profit** (b) deducted from financial profit  
(c) ignored (d) added to costing profit
8. In Reconciliation Statement, Opening Stock undervalued  
(a) added to financial profit (b) **deducted from financial profit**  
(c) ignored (d) deducted from costing profit
9. In Reconciliation Statement, Depreciation Overcharged in Financial Accounts is  
(a) **added to financial profit** (b) deducted from financial profit  
(c) ignored (d) added to costing profit
10. In Reconciliation Statement, Depreciation Undercharged in Financial Accounts is  
(a) added to financial profit (b) **deducted from financial profit**  
(c) ignored (d) added to costing profit
11. In Reconciliation Statement, Overheads Under-Recovered in Cost Accounts are  
(a) **added to financial profit** (b) deducted from financial profit  
(c) ignored (d) added to costing profit



(c) deducted from financial loss      **(d) added to costing profit**

24. In Reconciliation Statement, Expenses debited only in the Financial Accounts are

(a) added to financial profit      (b) deducted from financial loss

(c) deducted from costing profit      (d) added to costing loss

**(e) any of the above except**

25. In Reconciliation Statement, Closing Stock Undervalued in the Financial Accounts is

(a) added to financial profit      (b) deducted from financial loss

(c) deducted from costing profit      (d) added to costing loss

**(e) any of the above except**

26. In Reconciliation Statement, Opening Stock Undervalued in the Financial Accounts is

(a) deducted from financial profit      (b) added to financial loss

(c) added to costing profit      (d) deducted from costing loss

**(e) any of the above**

27. In Reconciliation Statement, Depreciation Undercharged in the Financial Accounts is

((a) deducted from financial profit      (b) added to financial loss

(c) deducted from costing profit      (d) deducted from costing loss

**(e) any of the above except**

28. In Reconciliation Statement, Overheads Over-recovered in Cost Accounts is

(a) added to financial profit      (b) deducted from financial loss

(c) deducted from costing profit      (d) added to costing loss

**(e) none of the above**

**(B) Numerical**

29. Profit as per Financial Accounts      57,240

Over recovery of works overheads      240

Under recovery of office expenses      240

Reconciliation statement will show

**(a) Profit as per Cost Accounts – Rs.57,240**

(b) Profit as per Cost Accounts – Rs.57,720

(c) Profit as per Cost Accounts – Rs.56,760

(d) Profit as per Cost Accounts – Rs.57,240

30. Profit as per Financial Accounts      68,77,500

Under recovery of FOH      97,500

Over valuation of Closing Stock in Cost accounts      4,53,125

Over recovery of AOH      3,96,875

(a) Profit as per Cost Accounts – Rs.68,36,250

(b) Profit as per Cost Accounts – Rs.61,25,000

(c) Profit as per Cost Accounts – Rs.78,25,000

**(d) Profit as per Cost Accounts – Rs.70,31,250**

31. Profit as per Financial Books      3,28,750

|                                                  |          |
|--------------------------------------------------|----------|
| Factory Overhead in cost accounts                | 2,00,000 |
| Factory Overheads in financial accounts          | 1,93,750 |
| Office overheads under-absorbed in cost accounts | 2,500    |

Reconciliation statement will be show

- (a) Profit as per Cost Accounts – Rs.3,37,500  
 (b) Profit as per Cost Accounts – Rs.3,32,500  
**(c) Profit as per Cost Accounts – Rs.3,25,000**  
 (d) Profit as per Cost Accounts – Rs.5,20,000

|                                |        |
|--------------------------------|--------|
| 32. Profit as per cost records | 43,000 |
| Works overhead less charged    | 1,000  |
| Office expenses overcharged    | 8,000  |

- (a) Profit as per financial books – Rs.52,000  
 (b) Profit as per financial books – Rs.34,000  
**(c) Profit as per financial books – Rs.50,000**  
 (d) Profit as per financial books – Rs.36,000

|                                                              |          |
|--------------------------------------------------------------|----------|
| 33. Profit as per Cost Accounts                              | 1,10,000 |
| Over-absorption of administrative overheads in cost accounts | 30,000   |
| Dividends received recorded in financial accounts only       | 6,000    |
| Over valuation of closing stock                              | 32,400   |
| Under absorption of direct expenses in cost accounts         | 48,000   |

Reconciliation statement will be show

- (a) Profit as per financial accounts – Rs. 66,000**  
 (b) Profit as per financial accounts – Rs. 6,000  
 (c) Profit as per financial accounts – Rs. 54,000  
 (d) Profit as per financial accounts – Rs.1,62,000

|                                                    |        |
|----------------------------------------------------|--------|
| 34. Profit as per Cost Accounts                    | 4,000  |
| Income from investments in financial accounts      | 10,000 |
| Wages underabsorbed in cost accounts               | 5,000  |
| Loss on sale of fixed assets in financial accounts | 20,000 |

Reconciliation statement will be show

- (a) Loss as per financial accounts – Rs.21,000  
 (b) Profit as per financial accounts – Rs.11,000  
**(c) Loss as per financial accounts – Rs.11,000**  
 (d) Profit as per financial accounts – Rs.29,000

|                              |          |
|------------------------------|----------|
| 35. Loss as per cost records | 1,47,440 |
| Loss on sale of Fixed Assets | 8,40,000 |
| Income from Investments      | 4,00,000 |

Reconciliation statement will be show

- (a) Loss as per financial records – Rs.13,87,440  
 (b) Profit as per financial records – Rs. 2,92,560  
 (c) Loss as per financial records – Rs. 5,87,440  
**(d) Profit as per financial records – Rs. 5,87,440**

**Hints:**

29. ( 57,240 + 240 - 240)
30. (68,77,500 +97,500+4,53,125-3,96,875)
31. (3,28,750 +2,500 - (2,00,000-1,93,750))
32. (43,000-1,000+8,000)
33. (1,10,4000+30,000+6,000-32,400-48,000)
34. (10,000+4,000-5,000-20,000)
35. (1,47,440 + 8,40,000-4,00,000)

**Q.2. Fill in the Blanks**

1. Interest paid on loans appears only in \_\_\_\_\_ (**financial/ cost**) accounts.
2. Notional Remuneration to Owner appears only in \_\_\_\_\_ (financial/ **cost**) accounts.
3. Discount on Issue of Debentures appears only in \_\_\_\_\_ (**financial/ cost**) accounts.
4. Notional Interest charges to owner for drawings appears only in \_\_\_\_\_ (financial/ **cost**) accounts.
5. Loss on sale of Investment appears only in \_\_\_\_\_ (**financial/ cost**) accounts.
6. Income Tax appears only in \_\_\_\_\_ (**financial/ cost**) accounts.
7. Dividend received appears only in \_\_\_\_\_ (**financial/ cost**) accounts.
8. Damages awarded by Court appear only in \_\_\_\_\_ (**financial/ cost**) accounts.
9. Expenses which appear only in Cost Accounts and not in Financial Accounts are generally \_\_\_\_\_ (**notional/actual**) items.
10. Under \_\_\_\_\_ system, there is no need of reconciliation of cost and financial accounts. (**integrated/** )

**Q.3. Match the Followings.**

A]

| Column A                                           | Column B                                           |
|----------------------------------------------------|----------------------------------------------------|
| 1. Interest paid on Loan                           | a. Income credited only in Cost Accounts           |
| 2. Donations                                       | b. Expenses debited only in the Financial Accounts |
| 3. Interest Received on Loans                      | c. Debited in both financial and cost accounts     |
| 4. Notional Interest on Owner's Capital            | d. Ignored in both financial and cost accounts     |
| 5. Notional Interest charges to owner for drawings | e. Appropriations only in Financial Accounts       |
|                                                    | f. Income credited only in financial Accounts      |
|                                                    | g. Credited in both financial and cost accounts    |
|                                                    | h. Expenses debited only in Cost Accounts          |

Ans:- 1- b; 2-e; 3-f; 4-h; 5- a

B]

| Column A                               | Column B                                           |
|----------------------------------------|----------------------------------------------------|
| 1. Interest paid on Debentures         | a. Income credited only in Financial Accounts      |
| 2. Writing off Goodwill                | b. Income credited only in Cost Accounts           |
| 3. Interest Received on Fixed Deposits | c. Expenses debited only in the Financial Accounts |
| 4. Notional Remuneration to Owner      | d. Credited in both financial and cost accounts    |
| 5. Notional Rent charges to owner      | e. Ignored in both financial and cost accounts     |
|                                        | f. Expenses debited only in Cost Accounts          |

|  |                                                                                             |
|--|---------------------------------------------------------------------------------------------|
|  | g. Appropriations only in Financial Accounts<br>h. Debited both financial and cost accounts |
|--|---------------------------------------------------------------------------------------------|

Ans:- 1-c; 2-g; 3-a; 4-f; 5-b

C]

| Column A                                                                                                                                                                                                     | Column B                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Interest paid on Fixed Deposits<br>2. Written off Preliminary Expenses<br>3. Dividend Received on Investments made in shares<br>4. Notional Rent charges to Owner<br>5. Costing closing stock over-valued | a. Income credited only in Financial Accounts<br>b. Credited in both financial and cost accounts<br>c. Excess profits as per Cost Accounts<br>d. Expenses debited only in the Financial Accounts<br>e. Expenses debited only in the Cost Accounts<br>f. Debited in both financial and cost accounts<br>g. Ignored in both financial and cost accounts<br>h. Appropriation only in Financial Accounts |

Ans:- 1- d; 2-h; 3- a; 4-e; 5-c

D]

| Column A                                                                                                                                 | Column B                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Expenses on Issue of Shares<br>2. Machinery Scrapped<br>3. Premium on Issue of Shares<br>4. Income Tax<br>5. Overheads over-recovered | a. Income credited only in Cost Accounts<br>b. Debited in both financial and cost accounts<br>c. Credited in both financial and cost accounts<br>d. Losses debited only in the Financial Accounts<br>e. Ignored in both financial and cost accounts<br>f. Appropriations only in Financial Accounts<br>g. Less profits as per cost Accounts<br>h. Expenses debited only in the Financial Accounts<br>i. Income credited only in Financial Accounts |

Ans: 1- h ; 2- d; 3- i ; 4- f ; 5- g

#### Q.4) State whether True or False

- 1) Profit as per cost accounts is the same as profit as per the financial accounts. **False**
- 2) Notional interest on Owner's capital appears only in financial profit and loss a/c. **False**
- 3) Goodwill written off appears only in cost accounts. **False**
- 4) Overheads are taken on estimated basis in Financial Accounts. **False**
- 5) Profit as per cost accounts is the same as profit as per the financial accounts, in case of integrated system of accounts. **True**
- 6) Reconciliation of cost and financial accounts is necessary, in case of non-integrated system of accounts. **True**
- 7) Expenses which appear only in Financial Accounts and not in Cost Accounts are generally notional items. **False**
- 8) Need for Reconciliation arises in case of Integrated system of Accounts. **False**
- 9) Need for Reconciliation does not arise in case of Non-Integral system of accounts. **False**
- 10) Closing stock of finished goods in Cost Books is valued at cost or net realizable value whichever lower. **False**

- 11) Closing Stock of work-in-progress in financial books is generally valued at cost of goods produced. **False**
- 12) The under/over recovery of overheads may result in difference between Financial profit and Cost profit when such under/over recovery is charged to Costing Profit & Loss Account. **False**
- 13) Dividend paid is a financial income. **False**
- 14) Transfer to general reserve is credited to financial profit and loss a/c. **False**

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