

### Estimation of Working Capital

**Q.1** From the following information, you are required to prepare a statement showing estimation of working capital for 2019.

#### Estimated Profit & Loss A/c for 2019

Particular	₹	₹
Sales		3,60,000
Less: <u>Expenses</u>		
Material	1,08,000	
Direct Labour	1,44,000	
Overheads	72,000	3,24,000
<b>Net Profit</b>		<b>36,000</b>

It is estimated that:

- 1 On an average, raw material equal to one month's consumption is carried in stock throughout the year.
- 2 On an average, finished goods equal to two months production is carried in stock throughout the year.
- 3 On an average, half month production remains in process throughout the year. Work-in-progress valuation is to be made at material cost plus 50% of wages and overheads.
- 4 On an average, one month's payment remains outstanding in respect of wages and overheads throughout the year.
- 5 One-month credit is granted to customers for sale of goods on credit.
- 6 Suppliers of materials allows one and half month credit on purchase.
- 7 Cash on hand is estimated at ₹ 25,000.

**Q.2** Estimated cost sheet of a company is as follows:

Elements of Cost	Per unit (₹)
Raw Materials	80
Direct Labour	30
Overheads	60
<b>Total Cost</b>	<b><u>170</u></b>
Profit	<u>30</u>
<b>Selling Price</b>	<b><u>200</u></b>

The following particulars are available:

Raw Materials are in stock on an average for one week. Materials are in process on an average for half month. Finished goods are in stock on an average for one month. Cash balance is to be maintained at ₹ 25,000. Credit

allowed by suppliers is one month. Credit allowed to debtors is two month. Time lag in payment of wages is 1½ weeks. Lag in payment of overheads is one month. One-fourth of the output is sold against cash.

Prepare statement showing working capital needed to finance a level of activity of 1,04,000 units of production.

You may assume that time period of four weeks is equivalent to a month and 52 weeks in year.

**Q.3** From the following information of M/s. Sanjay & Co., prepare statement- showing estimation of working capital.

**Estimated Profit & Loss A/c**

<b>Particulars</b>	₹	₹
Sales		9,00,000
Less: <u>Expenses</u>		
Material	3,60,000	
Direct Labour	2,70,000	
Overheads	<u>90,000</u>	<u>7,20,000</u>
<b>Net Profit</b>		<b><u>1,80,000</u></b>

Additional Information:

- 1 Raw Material is carried in stock for 1½ months & Finished goods for 1¼ months.
- 2 1/4 month's production remains in process.
- 3 Credit period allowed to customers is 1¾ months. Supplier allows ½ months credit.
- 4 Time lag in payment of wages & overheads is one month.
- 5 Cash on hand & at bank estimated at ₹ 20,000.

You are required to estimate the amount of Working capital **after adding 10% for contingencies.**

**Q.4** A factory produces 96,000 units during the year and sells them for Rs. 50 per unit. Cost structure of a product is as follows:

Raw Materials	60%
Labour	15%
Overheads	<u>10%</u>
Total	85%
Profit	<del>15%</del>
Selling price	100%

The following additional information is available:

- 1 Production, purchase and sales takes place evenly throughout the year.

- 2 Raw Materials equivalent to 1-month supply is stored in godown.
  - 3 The production process takes 1 month.
  - 4 Finished goods equal to three month's production are carried in stock.
  - 5 Debtors get 2 month's credit. Debtors are to be valued at cost.
  - 6 Creditor allows 1½ month's credit.
  - 7 Time lag in payment of wages is half month and Time lag in payment of overheads is one month.
  - 8 Cash and Bank balance is to be maintained at 10% of the working capital.
- Draw a forecast of working capital requirements of the factory.

**Q.5** From the following information prepare a statement of working capital of Ajay Ltd.

- 1 Estimated Material cost is ₹ 7,20,000 and Labour cost is ₹ 5,40,000.
- 2 As per credit policy of the company Debtors (at selling price) at three months credit will be ₹ 4,50,000. However for estimation of working capital purpose Debtors are to be taken at cost.
- 3 Raw materials remain in stock for 1 month.
- 4 Finished goods remain in stock for half month.
- 5 Credit allowed by suppliers is two months.
- 6 Materials remains in process on an average for one month.
- 7 Company sells the goods at profit of 25% on cost.
- 8 Time lag in payment of wages and overheads is 1 month.
- 9 Cash Balance to be maintained ₹ 1,10,000.
- 10 Assuming safety margin @ 10%.

**Q.6** From the following figures, prepare an estimate of the working capital :

Production	30,000 Units
Selling Price per unit	₹ 10
Raw Material	60% of selling price
Direct wages	1/6 <sup>th</sup> of Raw material
Overheads	Twice the Direct wages
Material in hand	2 months requirement
Production time	1 month
Finished goods in stores	3 months
Credit for material	2 months
Credit allowed to customers	3 months
Average cash balance	₹ 40,000

Wages and overheads are paid in the beginning of next month. In production all the material are charged in the initial stage and wages and overheads accrue evenly.

**Q.7** Estimate the working capital required by Sycom Co. Ltd., for a production of 2,00,000 units for 2007.

In 2007, other factors are expected to remain same as in 2006. In 2006, Selling price of the product was ₹ 30 per unit and production was 1,00,000 units. The cost ratios to sales were:

Raw materials	50%
Direct wages	20%
Factory overheads	10%
Administration overheads	4%
Selling & Distribution overheads	6%

**Additional information:**

- 1 Company maintains Raw materials in store for two months and finished goods in stock for three months.
- 2 Debtors are allowed a credit of three months, 75% of sales are expected to be on credit.
- 3 Company maintains adequate cash balance to meet three month's overheads.
- 4 Production time is one month.
- 5 Creditors allow two months credit from the date of supply of materials. 20% of purchases are expected to be against cash payment. Time Lag in payment of wages is one month.
- 6 Bank overdraft of ₹ 10,00,000 is available.
- 7 Production, sales, expenses and supplies are all expected to occur evenly throughout the year.

**Q.8** The managing director of Patel Oxygen Corporation Pvt. Ltd. desires to plan the financial requirements for the working capital of the company so as to meet the program just formulated.

The share capital of the company is ₹ 10,00,000. The company also has raised 10% debenture loan of ₹ 1,50,000. The fixed assets of the company are of the value of ₹ 3,75,000.

Production during the year 2018 was 18,000 units. In the coming year 2019, it is expected to be 30,000 units. The estimated (summarised) cost sheet is :

	₹
Raw Materials	60
Direct Wages	10
Overheads (excluding debenture interest )	20
Profit	<u>10</u>
Selling Price	<u>100</u>

It is also estimated that:

- 1 Raw Materials will remain in stock for 1/2 month before issue to production.

- 2 Production cycle will take one month.
  - 3 Finished goods will remain in godown for 1 month before sale.
  - 4 All sales will be on credit.
  - 5 Credit allowed by suppliers will be 3 months and credit allowed to debtors will be 4 months from the date of receipt and dispatch of the goods respectively.
  - 6 The production and sales cycle will be even throughout the year.
  - 7 Time lag in payment of wages and overheads is 1/2 month.
- You are required to prepare:
- a. Estimate of working capital.
  - b. Estimated profit and loss account for the year ended 31st December 2019.