2 WORKING CAPITAL MANAGEMENT

WORKING CAPITAL is that capital which is not fixed. It is the difference between, the book value of the current assets and the current liabilities.

TYPES OF WORKING CAPITAL (OCT. 2012)

Working capital has been classified and distinguished in a number of ways. Some of the important classifications are as follows:

(1) **Gross Working Capital**

Gross working capital is equal to the total current assets only. Items of current assets are like stock of raw materials, work-in-progress, finished goods, spares and consumable stores, sundry debtors, bills receivable, cash and bank balance, prepaid expenses, accrued income, advance payments, short term investments, etc.

(2) **Net Working Capital**

Net working capital is the excess of current assets over current liabilities. Thus,

Net working capital = Current Assets minus Current Liabilities In other words the value of the gross working capital is reduced by current liabilities such as sundry creditors, bills payable, bank overdraft, income received in advance, outstanding liabilities, proposed dividend, provision for tax, etc.

(3) **Positive Working Capital**

When the current assets are more than the current liabilities such a situation is known as positive working capital.

E.g. If the current assets are Rs. 5,00,000 and the current liabilities are Rs. 3,00,000, the working capital is Rs. 2,00,000.

(4) **Negative Working Capital**

When the current liabilities are more than the current assets such a situation is known as negative working capital.

E.g. If the current assets are Rs. 5,00,000 and the current liabilities are Rs. 6,50,000, the working capital is negative to the extent of Rs. 1,50,000. A negative working capital indicates the lack of liquidity and solvency position which is a danger signal for the business.

(5) **Zero Working Capital**

When the investment in current assets is exactly equal to the current liabilities in such a situation it shows zero working capital.

E.g. If the current assets are Rs. 5,00,000 and also the current liabilities are Rs. 5,00,000; then it is a situation of zero working capital.

(6) **Permanent Working Capital/Core Working Capital**

It represents the amount of capital locked up in the business on a continuous basis so long as it continues to exist. Permanent working capital are of two types:

(a) Initial Working Capital: It is the amount of working capital required at the inception of the business. In the initial stages on one hand it may be required to grant credit to customers and on the other hand it may be difficult to get credit from the banks in such a case adequate working capital is required to initiate the circulation of capital and keep it moving till collection from debtors are more than payments.

(b) Regular Working Capital: It refers to the excess of current assets over current liabilities. A business enterprise has to keep a minimum stock of materials, finished goods and cash in order to meet its immediate obligations as well as to ensure its smooth working.

(7) **Variable Working Capital/ Fluctuating Working Capital**

Variable working capital is of three kinds and it is influenced by seasonal fluctuations.

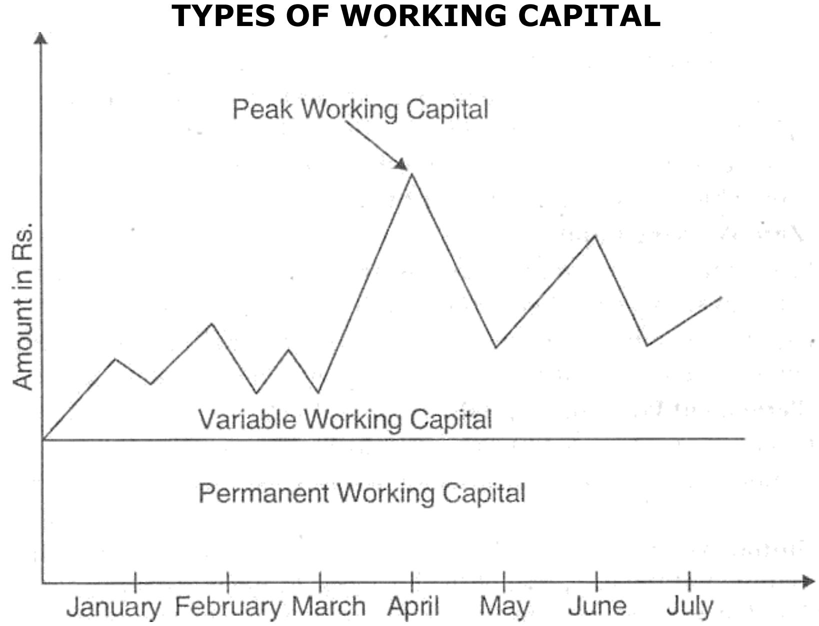
(a) Seasonal Working Capital: It is the amount of working capital to meet the demand of seasonal requirements. During the season more working capital is required and during the off season less amount of working capital is required.

(b) Special Working Capital: In order to meet unforeseen eventualities such as strikes, fire, floods, riots, sudden increase in demand, war contracts, drastic increase in taxes, severe competition, etc. additional funds are required by an organisation. Such amount is termed as special working capital.

(8) **Peak Working Capital**

The variable working capital keeps on fluctuating. Peak working capital is the highest amount of the working capital required by a business organisation during its course of operations.

TYPES OF WORKING CAPITAL



(8) **Balance Sheet Working Capital**

It is the difference between the current assets and current liabilities as per the Balance-sheet prepared at the end of the financial year. The concept of balance-sheet working capital is static in nature as it does not reveal the flow of money occurring between the two balance sheet dates.

(9) **Cash Working Capital**

It refers to the working capital which is available in cash or cash resources. It is reflected by the items contained in the income statement in between the two balance sheet dates. It reveals the operational inflow as well as outflows of cash.

WORKING CAPITAL CYCLE (APRIL 11, NOV. 11)

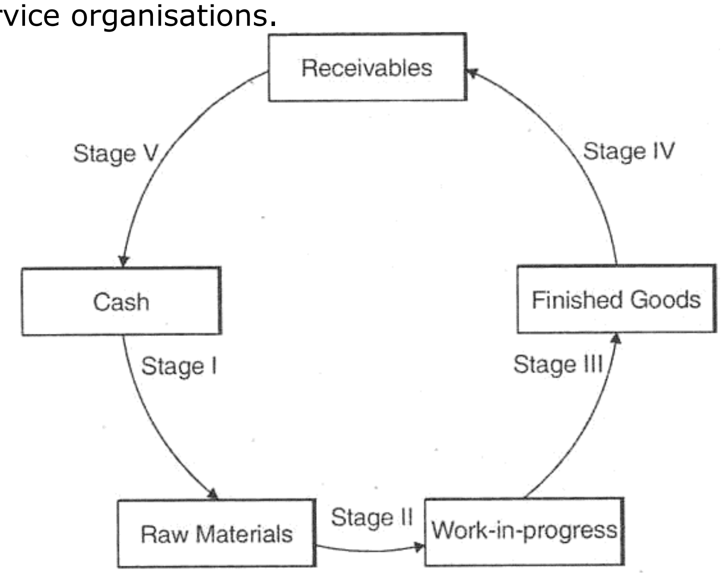
The working capital cycle is also known as operating cycle. It refers to the duration between the firm's payment of cash for raw materials, entering into production and inflow of cash from debtors and realization of receivables.

As there is a time lag between sales and realisation of receivables there is a need for sufficient working capital to deal with the problem which arises due to lack of immediate realisation of cash against goods sold. The operating cycle refers to the time taken for the conversion of cash into raw material, raw material into work-in- progress, work-in-progress into finished goods, finished goods into receivables, receivables into cash and this cycle repeats.

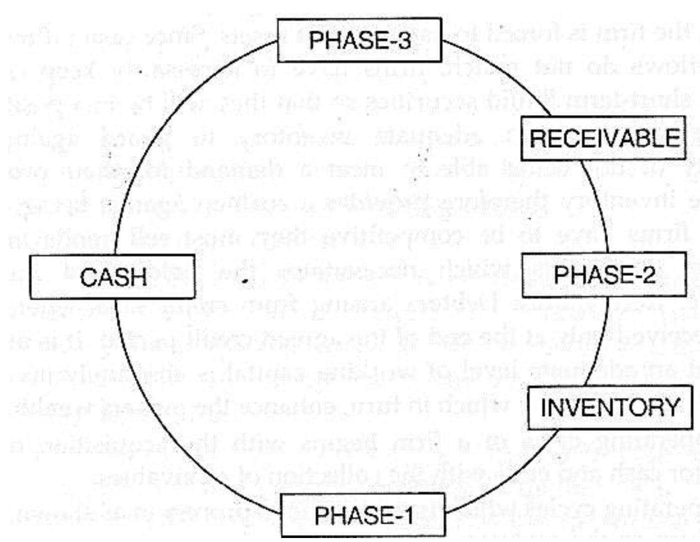
The operating cycle consists of three phases (as shown in the diagram)

PHASE I

In phase 1, cash gets converted into inventory. This would include purchase of raw materials, conversion of raw materials, conversion of raw materials into work-in-progress, finished goods and terminate in the transfer of goods to stock at the end of the manufacturing process, in the case of trading organisations, this phase would be shorter as there would be no manufacturing activity and cash will be converted into inventory directly. The phase will of course be totally absent in the case of service organisations.



OPERATING CYCLE



PHASE II

In phase 2 of the cycle, the inventory is converted into receivable as credit sales are made to customers. Firms, which do not sell on credit, will obviously not have phase 2 of the operating cycle.

PHASE III

The last phase, phase 3, represents the state when receivables are collected. This phase completes the operating cycle. Thus, the firm has moved from cash to inventory, to receivables and to cash again.

The operating cycle consists of the following events which continue throughout the life of a firm remaining engaged in commercial activities:

(I) Conversion of cash into raw materials.
(II) Conversion of raw materials in work-in-progress.
(III) Conversion of work-in-progress into finished goods.
(IV) Conversion of finished goods into account receivable and debtors through sales.
(V) Conversion of accounts receivable into cash.

OPERATING CYCLE CALCULATION

Calculation of Operating Cycle:

STEP I

Advance Money	= (Advance/[Raw Material + Stores]) X 365 Days
Raw Material Stock Holding Period	= (Raw Material/Purchases) X 365 Days
Work in Progress	= (Work in Progress/Cost of Production) X 365 Days
Finished Goods	= (Finished Goods/COGS) X 365 Days
Debtors	= (Debtors/Credit Sales) X 365 Days
Creditors	= (Creditors/Credit Purchases) X 365 Days

STEP II

$$\boxed{OC = A + R + W + F + D - C}$$

OC	= Duration of operating cycle
A	= Amount paid for purchases of raw materials in respect of Government supplies or Quota items
R	= Storage of raw materials period
W	= W-I-P period/duration
F	= Finished goods period
D	= Debtors collection period
C	= Creditors payment period

STEP III

Number of OC in a year = 365 Days/OC

STEP IV

AWCR = Total of Operating Cost/Number of OC in a year = Rs.

FACTORS DETERMINING WORKING CAPITAL REQUIREMENTS (APRIL 12, 14)

A finance manager is required to estimate the working capital requirements. The amount of working capital required by a business firm depends on the following factors

(1) **Nature of Business**

The nature and volume of business is an important factor in deciding the needed working capital. Public utility service (like railway companies) as compared to manufacturing concerns requires a lesser amount of working capital. A larger amount of working capital is required for trading or merchandising institutions as it has to carry large inventories and allow credit to its customers. Similarly, basic and key industries or those engaged in the manufacture of producer's goods, usually have less proportion of working capital to fixed capital than industries producing consumer's goods. A manufacturing concern requires more working capital as compared to a firm engaged in trading activities.

(2) **Size of Business Unit**
It is an important factor for determining the proportion of working capital. The general principal in this connection is that the bigger the size of the unit, the more will be the amount of working capital required. But it is quite likely that the bigger sized business unit, i.e. a consumers' goods industry may require a larger amount of fixed capital than working capital.

(3) **Time Consumed for Manufacture**
The longer the period of manufacture, the larger the inventory required. However, if the flow of product is quite steady, although the value of goods in process is large, the working capital will not vary much from time to time.

(4) **Need to Stock Pile Raw Materials**
Those concerns where there is the need to stock pile raw materials require larger amount of working capital. The necessity for stock piling increases the extent of funds tied up in inventories.

(5) **Need to Store Finished Goods**
In business like retail stores, where unit is required to store finished goods, (because in the absence of adequate stocks, customer may return disappointed) naturally more working capital is required.

(6) **Cost and Time Involved in the Manufacturing Process**
If the manufacturing process in an industry entails high cost because of its complex nature, more working capital will be required to finance that process and also for other expense which vary with the cost of production. Moreover, the longer the period of manufacture, higher the amount of cash needed.

(7) **Turnover of Circulating Capital**
Turnover of circulating capital plays an important and decisive role in judging the adequacy of working capital. The speed with which the circulating capital completes its round, i.e., conversion of cash into book debts or bills receivables, and book debts or bills receivables into cash again plays an important role.

(8) **Terms and Conditions of Purchase and Sale**
The place given to credit by a concern in its dealings with creditors and debtors may also be considered to assess the adequacy of working capital. A business unit, making purchase on credit basis and selling its finished products on cash basis, will require lower amount of working capital than a concern having no credit facilities and which may further be forced to grant credit to its customers.

(9) **Conversions of Current Assets into Cash**
A company having ample stock of liquid current assets will require lesser amount of working capital, because adequate funds can easily be procured by disposal of current assets.

(10) **Impact of Cyclical and Seasonal Variation**
In periods of the boom and depression, more working capital is needed than during the other stages of cyclical fluctuations.

(11) **Production Policies**
The production policies adopted by a business organisation affects the requirements of working capital. The level of production decides the investment in current assets which in turn decides the amount of working capital required.

(12) **Turnover of Inventories**
A business firm having high inventory turnover would require limited working capital whereas, a firm having low inventory turnover would require more amount of working capital.

(13) **Dividend Policies**
A firm following a liberal dividend policy requires high working capital to pay cash dividends, whereas a firm following a conservative dividend policy will require less amount of working capital resources.

(14) **Inflation**
During inflation a business concern requires more working capital to pay for raw materials, ' labour and other expenses. This may be compensated to some extent later due to possible rise in selling price.

(15) **Technology**
A firm using labour oriented technology will require more working capital to pay labour wages regularly.

(16) **Taxation Policies**
Government taxation policy affects the quantum of working capital requirements. High tax rates demands more amount of working capital.

(17) **Expansion**
An expanding business will require increase in working capital proportionate to the rate of expansion.

(18) **Degree of Co-ordination**
In the absence of co-ordination between production and distribution policies more working capital may be needed.

MANAGEMENT OF WORKING CAPITAL

Management of working capital involves managing the four important components. They are:
(1) Cash Management
(2) Receivables Management
(3) Inventory Management
(4) Creditors Management

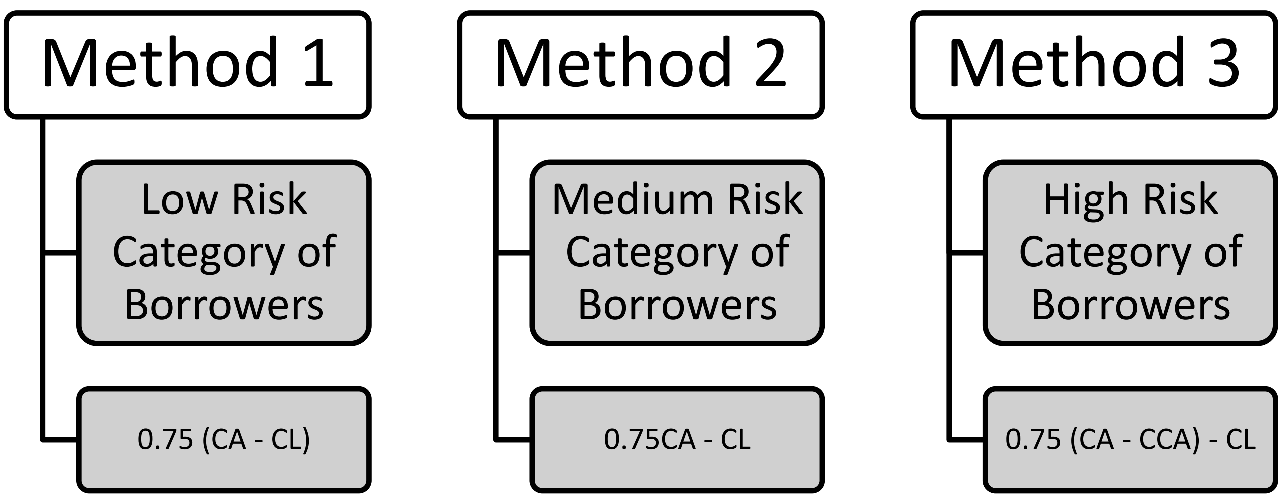
Working Capital Management aims at two things:
(1) Reduce the investment in working capital without adversely affecting the business firms survival and its bottom line (profits).
(2) Reduce the operating cycle duration. Because, Shorter Operating Cycle means more profits.

Working Capital management aims at making an optimum level of investment in working capital. Less investment in working capital is bad and more investment is worst. Working capital management involves managing the firms current assets and current liabilities. All items of current assets and current liabilities are short term in nature and it is likely to get converted into cash within a period of 1 year or less than that. A firm must not keep more investment in its working capital and keep funds locked up unnecessarily since every source has a cost of capital attached with it. Decision regarding incremental investment in working capital must be taken based on the "Cost - Benefit Analysis."

MAXIMUM PERMISSIBLE BANK FINANCE (MPBF)

In 1974, Reserve Bank of India appointed a Study Group with Shri P. L. Tandon, then Chairman, Punjab National Bank as the Chairman for "Framing Guidelines for the follow up of Bank Credit". A "Working Group" to review the system of cash credit was constituted in April 1979 under the chairmanship of Shri K. B. Chore, Chief Office, DBCOD, Reserve Bank of India. Reserve Bank of India (RBI) had appointed Tandon Committee and Chore Committee which recommended that business enterprises should improve their liquidity position and firstly they should try to improve their current ratio to the level of 1.33 : 1 and thereafter should try to achieve a current ratio of 2 :1.

CALCULATION OF MAXIMUM PERMISSIBLE BANK FINANCE (MPBF)



where;

CA = Current Assets

CL = Current Liabilities excluding Bank Overdraft or any Short Term Bank Borrowings

CCA = Core Current Assets

CLASS WORK PROBLEMS

1. Prepare an estimate of working capital requirement from the following details of a company which has a paid up share capital of Rs. 10,00,000, 6% debentures of Rs. 1,00,000 and fixed assets of Rs. 7,50,000.
(a) The monthly production and sales will be 5,000 units to be sold at Rs. 15 each.
(b) The per unit costs will be: Materials Rs. 6.00, Wages Rs. 4.50, and expenses Rs. 1.50.
(c) Raw materials and finished goods will remain in stock for 1.5 month and 2 months respectively.
(d) The process time will be 1 month.
(e) The credit allowed to debtors and received from creditors will be 2 months and 1 month respectively.

2. The cost sheet of PQR Ltd. gives the following data:

Particulars	Cost Per Unit Rs.
Raw Material	50
Direct Labour	20
Overhead (including depreciation of Rs. 10)	40
Total Cost	110
Profit	20
Selling Price	130

Average raw material in stock is for one month. Average material in work in progress is for half month. Credit allowed by suppliers is one month. Debtors are allowed credit of one month. Average time lag in payment of wages is 10 days. Average time lag in payment of overheads is 30 days 25% of the sales are on cash basis. Cash balance is expected to be Rs. 1,00,000. Finished goods lie in the warehouse for one month.
Prepare a statement of working capital needed to finance a level of activity of 54,000 units of output. Production is carried on evenly throughout the year and wages and overhead accrue similarly.

3. The management of Gemini Enterprises has called for a statement showing the working capital required to finance a level of activity of 1,80,000 units of output for the year. The cost structure for the company's product for the above-mentioned level of activity is detailed below:

Particulars	Cost per Unit Rs.
Raw Material	20
Direct Labour	5
Overheads (including depreciation of Rs. 5 per unit)	15
Total Cost	40
Profit	10
Selling Price	50

Additional Information:
(i) Minimum cash balance desired Rs. 20,000.
(ii) Raw materials are held, in stock, on an average, for two months.
(iii) Work in progress (assume 50% completion stage) will approximate to half a month's production.

(iv) Finished goods remain in warehouse, on an average, for one month.
(v) Suppliers of raw materials extend one month's credit and debtors are given two month's credit. Cash sales are 25% of total sales.
(vi) There is a time lag in payment of wages of one month and of half a month in the case of overheads.
Prepare an Estimate of Working Capital requirements.

4.

Details of A Ltd.	Cost Per Unit
Materials	40
Labour	20
Variable selling Expenses	4

Fixed Expenses:
(i) Manufacturing = Rs. 6,000 p.m.
(ii) Administration = Rs. 48,000 p.a.
(iii) Selling = 20% of Administration is Selling Fixed Costs.
(iv) Depreciation = 10% p.a. on Cost of Machine of Rs. 12 lacs.
(v) Selling Price = Rs. 96 per unit.

	Output Units	Sales Units
Year 1	6,000	5,000
Year 2	9,000	8,500

Additional information:
(a) Stock of raw materials = 2.25 months' consumption.
(b) Debtors and creditors time lag = 1 month.
(c) Creditors for expenses = 1 month.
(d) Cash balance of one month's administration and selling expenses will be maintained.
(e) Finished goods will be valued on weighted average office cost basis.
Find the amount of working capital required for both the years.

5. The management of Royal Industries has called for a statement showing the working capital needs to finance a level of activity of 1,80,000 units of output for the year. The cost structure for the company's product for the above mentioned activity level is detailed below:

	Cost Per Unit (Rs.)
Raw Materials	20
Direct Labour	5
Overheads (including depreciation of Rs. 5 per unit)	15
	40
Profit	10
Selling Price	50

Additional Information:
(a) Minimum desired cash balance is Rs. 20,000.
(b) Raw materials are held in stock, on an average for two months.
(c) Work in progress (assume 50% completion stage) will approximate to half month's production.
(d) Finished goods remain in warehouse on an average for a month.
(e) Suppliers of materials extend a month's credit and debtors are provided two month's credit.
Cash sales are 25% of total sales.
(f) There is a time-lag in payment of wages of a month and half a month in case of overheads.
From the above facts, you are required to

(i) Prepare a statement showing working capital needs.
(ii) Determine the maximum working capital finance available under first two methods suggested by Tandon Committee.

6. Given below are the summarised income statements of ACE Ltd. for the year ended 31st March 2001 and the projected year ended 31st March, 2002:

Particulars	31-3-2001 (Rs. lakhs)	31-3-2002 (Rs. lakhs)
Sales	600	720
Less: Consumption of Raw Materials	180	240
Depreciation	12	15
Other Manufacturing Expenses	174	186
Adjustment for Opening and Closing Stock	(6)	(9)
Cost of Goods Sold	360	432
Gross Profit	240	288
Less: Interest	30	40
General Selling Expenses	150	200
Profit Before Tax	60	48

The company's average inventory, debtors and creditors levels for the year 2000-2001 were as follows:

Particulars	Rs. in lakhs
Raw Materials	15
Semi-finished Goods	15
Finished Goods	30
Debtors	100
Creditors	15

Based on the projected income statement estimate the working capital requirement for the year.

7. From the details of E Co. Ltd. calculate MPBF.

Balance Sheet (Rs. in lakhs)

Liabilities	**Rs.**	**Assets**	**Rs.**
Share Capital	600	Fixed Assets	960
Reserves and Surplus	200	Current Assets	600
Debentures	400		
Creditors and Other Current Liabilities	360		
	1,560		1,560

Note: Of the current assets Rs. 80 lakhs is Core Current Assets.

8. Re-write the following statement of changes in working capital by calculating the missing figures:

Statement of Changes in Working Capital

Particulars	31-12-2004	31-12-2005	Working Capital Increase/ (Decrease)
(A) Current Assets			

Stock	1,00,000	?	20,000
Debtors	?	70,000	?
Cash	10,000	15,000	?
Bank	25,000	?	25,000
Bills Receivables	30,000	25,000	?
Prepaid Expenses	5,000	?	1,000
(A)	?	?	-
(B) Current Liabilities:	20,000	?	(10,000)
Bills Payable	10,000	5,000	?
OtStstanding Wages	3,000	?	1,000
Outstanding Salary	?	4,000	?
(B)	40,000	?	-
Working Capital (A-B)	?	?	-
Increase in working capital			35,000 60,000

9. M/s. Jayam Ltd. sells its products on a gross profit of 20% on sales. The following information is extracted from its annual accounts for year ended 31 st March, 2002.

	Rs.
Sales (at three months credit)	40,00,000
Raw material (One month in arrears)	12,00,000
Wages paid (average time lag 15 days)	9,60,000
Manufacturing Expenses paid (One month in arrears)	12,00,000
Administrative Expenses paid (one month in arrears)	4,80,000
Sales Promotion Expenses (Payable half-yearly in advance)	2,00,000
Cash	1,00,000
Stock of:	
(A) Raw Materials (2 months inventory)	
(B) Finished goods (1.5 months inventory)	
(Add 10% Safety Margin)	

10. Ram Ltd. furnishes the following details and requests you to prepare a statement showing the requirements of working capital for the year 2006.

Particulars	Budget for 2006
Production Capacity	30,000 units
Production	80%
Cost Structure:	
Raw Material	Rs. 40 p.u.
Other direct material	Rs. 30 p.u.
Wages	Rs. 20 p.u.
Overheads: Fixed	Rs. 10,000 p.m.
Variable	Rs. 10 p.u.
Profit	20% on sales

(a) Fixed overheads payable quarterly in advance.
(b) Raw material remains in stock for two months.
(c) Other Direct Material in stock for one month.
(d) The production process takes one month. WIP valuation to be made raw material and other direct material at cost and 50% of wages and overheads (variable).

(e) Finished goods remain in stock for two months (to be valued at direct cost).
(f) Raw Material purchased from suppliers against advance payment of three months and other direct material suppliers allow credit of two months.
(g) Time lag in payment of wages two months.
(h) Cash Balance to be maintained at Rs. 75,000.
(i) Credit allowed to customers as under (valued at selling price)
(1) 50% of invoice price against acceptance of Bill for three months.
(2) 25% of invoice price time lag three months.

11. X and Co. is desirous to purchase a business and has consulted you, and one point on which you are asked to advise them is the average amount of working capital, which will be required in the first year's working.

Particulars		Figures for the year Rs.
Average amount backed up for stocks:		
Stocks of finished product		5,000
Stocks of stores, material, etc.		8,000
Average Credit given:		
Inland sales	6 weeks credit	3,12,000
Export Sales	1 ½ weeks credit	78,000
Lag in payment of wages and other overheads:		
Wages	1 ½ weeks	2,60,000
Stocks, Material, etc.	1 ½ weeks	48,000
Rent Royalties, etc.	6 months	10,000
Clerical staff	½ month	62,000
Manager	½ month	4,800
Miscellaneous Expenses	1 ½ months	48,000
Payment in advance:		
Sundry Expenses	Quarterly advance	8,000
Undrawn profit on average		11,000

Set up your calculations for the average amount of working capital required.

12. LAXMAN Ltd. manufactured and sold 1000 D.V.D. sets in the year 2005. The production cost per unit was as under:

Particulars	Rs.
Material	1,500
Labor	750
Overheads	450
Total Cost	2,700
Profit	300
Selling Price	3,000

For the year 2006 it is estimated that:
(a) The output and sales will be 1,500 D.V.D. sets.
(b) Selling price per unit will be Rs. 3,600/-.
(c) Overheads will increase by 20%.
(d) Price of material will rise by 10%.

(e) Labour cost will rise by 20%.
It is also estimated that:
(a) Cash in hand and with bank should always be Rs. 75,000/-.
(b) Customers allowed credit as under:
(i) 50% of sales against acceptance of bill for 2 months.
(ii) 50% of sales on one month credit.
(c) 60% of Raw Material requirements will be obtained from the suppliers from China by making 2 months advance payment and 40% of Raw Materials purchased on 1 month credit.
(d) Finished goods will remain in warehouse for one month.
(e) Raw material remain in stock for a half month before issue to production.
(f) Wages are paid one month in arrears.
(g) Material will be in process for half month. (Valued at cost of material plus 50% of labour and overheads).

13. The Board of Directors of Alka Ltd. require you to prepare a statement showing the working capital requirements forecast for a level of activity of 1,56,000 units of production. The following information is available for your calculation:

Particulars	(Rs. Per Unit)
Raw Materials	90
Direct Labour	40
Overheads	75
	205
Profit	60
Selling Price Per Unit	265

(a) Raw materials are in stock on average one month.
(b) Materials are in process, on average two weeks.
(c) Finished goods are in stock, on average one month.
(d) Credit allowed by suppliers - one month.
(e) Time lag in payment from debtors - two months.
(f) Time lag in payment of wages -1 Vi weeks.
(g) Lag in payment of overheads - one month.
20% of the output is sold against cash. Cash in hand and at Bank is expected to be Rs. 60,000. It is to be assumed that production is carried on evenly throughout the year. Wages and overheads accrue similarly and a time period of 4 weeks is equivalent to a month.

14. From the following information prepare an estimate of working capital required to finance a level of activity of 3,12,000 units p.a. (52 weeks) and how will you finance the working capital.

Particulars	Per unit
Raw Materials	90
Wages	40
Overheads:	
Manufacturing	30
Administrative	40
Selling	10
	210
Profit	40
Selling price	250

Other information:
(a) Raw materials are held in stock for a period of 4 weeks.
(b) Materials remain in process for 2 weeks requiring 50% wages and 40% overheads.
(c) Finished goods remain in stock for a period of 4 weeks.

(d) Credit allowed to customers is 8 weeks but 20% of the invoice price is collected immediately.
(e) Time lag in payment of wages is 1.5 weeks and in overheads is 4 weeks.
(f) Credit available from suppliers is 4 weeks but 20% of the creditors are paid 4 weeks in advance.
(g) Bank balance is to be maintained at Rs. 60,000.

15. The following data is furnished to you regarding two companies A and B operating in the same industry. (MU, BMS, May 2003)

Particulars	A	B
Raw materials stock (in terms of days purchases)	75	72
Work in process stock (in terms of days of cost of goods sold)	36	30
Finished goods stock (in terms of days of cost of goods sold)	54	40
Average collection period (in days)	72	60
Average Payment Period in days	60	48

(i) Calculate the operating cycle in case of each of the two companies.
(ii) Also suggest steps you would take to reduce the operating cycle.
(iii) What will be effect of reducing the operating cycle?

16. (M.U, BMS, May 2004)
Tasty Ltd. is presently operating at 50% level producing 30,000 packets of snack foods and proposes to increase capacity utilization in the coming year by 25% over existing level of production.
The following data has been supplied:

(i) Unit cost structure of the product at current level:	Rs.
Raw Material	4
Wages (Variable)	2
Overheads (Variable)	2
Fixed Overhead	1
Profit	3
Selling Price	12

(ii) Raw materials will remain in stores for 1 month before being issued for production.
Material will remain in process for further 1 month. Suppliers grant 3 months credit to the company.
(iii) Finished goods remain in godown for 1 month.
(iv) Debtors are allowed credit for 2 months.
(v) Lag in wages and overhead payments is 1 month and these expenses accrue evenly throughout the production cycle.
(vi) No increase either in cost of inputs or selling price is envisaged.
Prepare an estimate of working capital requirement at the new level, assuming that a minimum cash balance of Rs. 20,000 has to be maintained.

17. (M.U., BMS, Nov. 2006)
The following is a cost sheet of a Company producing 48,000 similar types of products every year.

Particulars	Amount per unit in (Rs.)
Raw Materials	80
Labour	40
Factory Overheads	30
Selling and Distribution cost	20
Net Profit	30

The following further particulars are given to you:
(a) Raw materials remain in stock for 2 months while finished goods stock in carried for 3 month.

(b) Credit allowed to customers is 3 months while credit allowed by suppliers of materials is 2 months.
(c) Factory Overheads are paid at the end of the month.
(d) Company has a policy to have bank balance of at least Rs. 1,50,000 on any date and cash holding worth 3 months factory overhead.
(e) 20% of the total sale is for cash.
You are required to prepare a statement of working capital requirements.

18. (M.U., BMS, Oct. 2008)
The selling price of a product is Rs. 20/- each and its break up is:

Materials	40%
Labour	20%
Other Direct Cost	10%
General Overheads	10%
Selling and Distribution Cost	10%
Profit @	10%

A company produces 3,60,000 units of a product in a year and the following details for the year are given for consideration:
(a) Raw materials remain in stock for 3 months, and the suppliers of Raw materials extend 2 months credit.
(b) The Work in Progress is to be valued @ 50% of the total direct cost of one months production.
(c) The customers are given three months credit.
(d) The wgges are paid after the end of the month.
(e) 40% of the total sales are for cash and balance on credit.
(f) There is no opening and closing stock of finished goods.
(g) Cash and Bank balance is carried to the extent of 50% of a monthly profit on an average basis.
You are required to compute Working Capital Requirement of the business.

19. (M.U., BMS, April 2011)
From the following information available to you, on 1st January, prepare the working capital requirement forecast for the year.
Production during the previous year was 30,000 units. It is planned that this level of activity should be maintained during the current year. The expected ratios of the cost to selling prices are Raw materials 60%, Direct wages 10% and Overheads 20%. Raw materials are expected to remain in stores for an average of 2 months before issue to production. Each unit of production is expected to be in process for 1 month, the raw materials being fed into the pipeline immediately and the labour and overheads cost accruing evenly during the month. Finished goods will be in the storehouse approximately for 3 months before being dispatched to customer. Creditors allow 2 months credit from the date of delivery of raw materials. Credit allowed to debtors is 3 months from the date of dispatch. Selling price is Rs. 10 per unit. The cycle of production and sales is regular. Wages are paid 15 days in arrears. Cash in hand with the company is normally Rs. 20,000. Assume 30 days to a month.

20. (M.U., BMS, April 2012)
The Board of Directors of Maria Ltd. Requires you to prepare working capital estimation for the coming year. The details of the company are as follows:
The number of units being produced currently are 50,000 units per annum.
The Raw material cost is Rs. 180 per unit.
The Wages are Rs. 40 per unit.

The Fixed Overheads are Rs. 100 per unit.
The Selling Price Per unit is Rs. 680.
Other Details are:
(a) Raw Material are in store on an average for 1 month along with Finished Goods.
(b) Material in Progress is on an average for 15 days.
(c) Credit allowed by suppliers is for 1 month.
(d) Time lag in collection from debtors is 4 months.
(e) Time lag in payment of Wages is 1 month and that of Overheads it is 3 months.
(f) 20% of the output is sold against credit. Cash in hand and in Bank is expected to be Rs. 3,00,000.

21. (M.U., BMS, Oct. 2012)
Amartax Ltd. is going to produce and sell 5,000 units per month in the year 2011. The material required per unit is Rs. 550. The direct labour is Rs. 12,00,000 per month. The other direct expenses are Rs. 1,26,00,000 per annum. The selling price is fixed by calculating profit at 20% on cost price.
Calculate requirement of working capital for 2011 by taking into consideration following information:
(a) Stock of raw material will be for two months.
(b) Process time is one month.
(c) Stock of finished goods will be for 1.5 months.
(d) Credit allowed to customer is two months.
(e) Time lag in payment of wages is one month and the direct expenses in arrear of 15 days.
(f) 20% of material is purchased on cash basis and suppliers of 80% material give 2 months credit.
(g) Cash required is 15% of net working capital.

22. (M.U., BMS, April 2013)
Vineeth & Co. is going to produce and sell 5,000 units per month in the year 2013. The material required per unit is Rs.55. Direct labour cost Rs. 1,20,000 per month. The overhead expenses amounted to Rs. 12,60,000 p.a. The sale price is fixed by calculating profit at 20% on sale price.
Calculate requirement of working capital for 2013 by taking into consideration the following information:
(a) Stock of raw material will be two months.
(b) Process time is one month.
(c) Stock of finished goods will be 1.5 months.
(d) Credit allowed to 50% customers is two months and the balance 50% customers are given one month credit.
(e) 25% of expenses are paid one month in advance and the balance 75% is paid after one month.
(f) Time lag in payment of wages is one month.
(g) 20% material is purchased on cash basis and 80% material on 1.5 month’s credit.
(h) Cash required is 20% of net working capital.

HOME WORK PROBLEMS

1. Y Ltd. furnished the following information and requests you to prepare a statement of showing the requirement of Working Capital. Production capacity 40,000 units per annum. Output and sales for the year 2005-06, 36,000 units.

	Per Unit Rs.
Raw Material	25
Wages	16
Overheads	10
	51
Profit	9
Selling Price	60

Additional information:

(i) Raw materials remain in stock for one month's consumption.
(ii) Process period is one month.
(iii) Finished goods remain in stock for two months.
(iv) Credit period allowed by the suppliers of raw materials is one month.
(v) Credit period allowed to debtors is two months.
(vi) 25% of sales will be for cash.
(vii) Time lag in payment of wages and overheads is one month.
(viii) Cash on hand and at bank should be Rs. 25,000.

[Ans.: CA = Rs. 7,49,500; CL = Rs. 1,53,000; AWCR = Rs. 6,37,000]

2. A company is having its level of activity at 36,000 units perspective year (same as last year) which is evenly spread out during the year. The cost statement of the company is as under:

	Per Unit
Raw	5
Direct	3
Overheads	2
Profit	2
Selling Price	12

Other Information:

(i) Raw materials remain in stock for one month.
(ii) Processing time is nil.
(iii) Finished goods remain in stock for 2 months.
(iv) Credit allowed by suppliers of raw materials is one month.
(v) Credit allowed to debtors is 2 months.
(vi) The company intends to maintain cash on hand and balance at bank equal to one month's raw material cost, two months' labour cost and three months' overhead cost for the contingencies.
(vii) 20% of sales are for cash.

You are required to prepare a statement showing working capital requirements of the company.

[Ans.: AWCR = Rs. 1,68,600]

3. Ace India furnished the following income statement for the year 2004:

	Rs.	Rs.
Sales (credit 2 months) Purchases (credit 1 month) Wages (credit 1/2 month) Factory rent (payable quarterly in advance)' Factory expenses (1 month's credit) Office expenses (1 month's credit) Managing Director's Salary (1 month's credit)	 4,90,000 1,02,000 52,000 96,000 12,000 48,000	12,00,000
		8,00,000
		4,00,000

Additional Information:
(i) Average investment in Stock of raw materials and
Work in progress is expected to be Rs. 90,000 and Rs. 60,000 respectively.
(ii) Average investment in Stock of finished goods is expected to be Rs. 55,000.
(iii) Bank Overdraft limit is Rs. 60,000

[Ans.: AWCR = Rs. 2,99,917; Method -1 = Rs. 2,69,938;
Method - II = Rs. 2,55,417; Method - III = Rs. 1,92,717]

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

Raw Materials	60%
Labour	15%
Overheads	10%
	85%
Profit	15%
Selling Price	100%

The following additional information is available:
(i) The activities of purchasing, producing and selling occur evenly throughout the year.
(ii) Raw Materials equivalent to 1 month's supply is stored in godown.
(iii) The production process takes 1 month.
(iv) Finished goods equal to three months' production are carried in stock.
(v) Debtors get 2 months' credit.
(vi) Creditors allow 1'A month's credit.
(vii) Time lag in payment of wages and overheads is 1/2 month.
(viii) Cash and Bank Balance is to be maintained at 10% of the working capital.
(ix) 10% of the sales are made at 10% above the normal selling price.
Draw a forecast .of working capital requirements of the factory.

[Ans.: AWCR = Rs. 21,64,444; CA = Rs. 25,74,444; CL = Rs. 4,10,000]

5. The projected profit and loss account for the year 2005-06 is as under:

	Rs.

Sales	36,50,000
Consumption of material	20,07,500
Labour	7,30,000
Overheads	5,47,500
Profit	3,65,000

The following additional information is furnished:
(i) Stock of material will be equal to 75 days of consumption.
(ii) Stock of finished goods will be equal to 45 days production.
(iii) Credit period to be allowed to sundry debtors will be on an average 60 days.
(iv) The credit period to be enjoyed from suppliers of materials will be 50 days.
(v) Time lag in payment of labour and overheads will be 15 days.
(vi) The amount of cash on hand and at bank will be on an average Rs. 52,500.
(vii) 30% of sales will be for cash. You are required to estimate the amount of working capital required. State the assumptions you have made.

[Ans.: AWCR = Rs. 9,20,500; CA = Rs. 12,48,000; CL = Rs. 3,27,500]

6. From the following information prepare an estimate of working capital required to finance a level of activity of 3,12,000 units p.a. (52 weeks)

Particulars	**Per Unit Rs.**
Raw materials	90
Wages	40
Overheads:	
Manufacturing	30
Administrative	40
Selling	10
	210
Profit	40
Selling price	250

Other information:
(i) Raw materials are held in stock for a period of 4 weeks.
(ii) Materials remain in process for 2 weeks requiring 50% wages and 40% overheads.
(iii) Finished goods remain in stock for a period of 4 weeks.
(iv) Credit allowed to customers is 8 weeks but 20% of the invoice price is collected immediately.
(v) Time lag in payment of wages is 1.5 weeks and in overheads is 4 weeks.
(vi) Credit available from suppliers is 4 weeks but 20% of the creditors are paid 4 weeks in advance.
(vii) Bank balance is to be maintained at Rs. 60,000.

[Ans.: AWCR = Rs. 1,45,56,000]

7. Infinity Limited is commencing a new project for manufacture of a component. The following cost information has been ascertained for annual production of 18,000 which is the full capacity:

Particulars	Cost per Unit
Materials	60
Direct labour	20
Variable manufacturing overheads	6
Fixed manufacturing overheads	4

Variable administrative overheads	2
Fixed administrative overheads	4
	96

The Selling Price per unit is expected to be Rs. 120. Production and Sales are expected to be as follows:

	(In No. of Units)	
Particulars	Production	Sales
In the first year	18,000	16,000

To assess the working capital requirements, the following additional information is available:

(i)	Stock of materials	2.5 month's average consumption
(ii)	Work in Process	*1/2* month's cycle
(iii	Finished goods	at total cost
(iv	Debtors	1.5 month's average sales
(v	Cash balance	Rs. 25,000
(vi	Creditors for supply of materials	1 month's average purchases during the year
(vi	Credit for direct labour	*1/2* month
(vi	Creditors for other expenses	1 month's average overheads during the year.

Prepare a statement of working capital requirement for the first year of operation.

[Ans.: AWCR = Rs. 21,89,444]

8. Seetal Enterprises sells goods in the local market at a gross profit of 25% on selling price. The following information is given from which you are required to prepare statement of working capital after adding 10% as Safety Margin.

Sales Local (one Month Credit)	Rs. 18,00,000
Sales Export (2 Month Credit 10% Below Local Sales)	Rs. 8,10,000
Materials Consumed (Suppliers Credit 2 Months)	Rs. 6,75,000
Wages (Time lag 1 month)	Rs. 5,40,000
Manufacturing overhead (Time lag 1 month)	Rs. 8,10,000
Administrative Expenses (Time lag 1 month)	Rs. 1,80,000
Sales Promotion Expenses (Payable Quarterly in advance)	Rs. 90,000

The company maintains one month's stock of raw materials and finished goods. It maintain a cash balance of Rs. 80,000.

[Ans.: AWCR = Rs. 4,09,750]

9. 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	10%
Profit	85%
Selling Price	15%
	100%

The following additional information is available:

(1) The activities of purchasing, producing and selling occur 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 months credit.
(6) Creditors allow 1 ½ months credit.
(7) Time lag in payment of wages and overheads is /i month.
(8) Cash & Bank Balance is to be maintained at 10% of the working capital.
(9) 10% of the sales are made at 10% above the normal selling price.
Draw a forecast of working capital requirements of the factory.

[Ans.: AWCR = Rs. 21,64,444.44]

10. Compute for a new company Taba Ltd. the duration of the operation working capital cycle from the following figures of year 2006 assuming 360 days per year comprising age of raw materials, finished goods, debtors and creditors only.

Closing stocks of	Rs.
(i) Raw material	20,000
(ii) Work-in-Progress	14,000
(iii) Finished Goods	21,000
Purchases	96,000
Cost of Goods sold	1,40,00
Sales	1,60,00
Closing Debtors	32,000
Closing Creditors	16,000

[Ans.: RM = 75 days; FG = 54 days; Debtors = 72 days; Creditors = 60 days; OC Duration =141 days; OC p.a. =2.55; AWCR = Rs. 54,833.33 (approx.)]

11. From the following data, prepare a statement showing working capital requirements_ for the year, 2006:
(a) Estimated activity/operations for the year 1,30,000 units [52 weeks].
(b) Stock of raw material 2 weeks and material in process for 2 weeks, 50% of wages and overheads are incurred.
(c) Finished goods 2 weeks storage.
(d) Creditors 2 weeks.
(e) Debtors 4 weeks.
(f) Outstanding wages and Overheads 2 weeks each.
(g) Selling price per unit at Rs. 15.
(h) Analysis of cost per unit is as follows:
(i) Raw material 33'A% of sales.
(ii) Labour and Overheads in the ratio of 6 : 4 per unit.
(iii) Profit is at Rs. 5 per unit.
Assume that operations are evenly spread through the year.

[Ans.: AWCR = Rs. 1,62,500]

12. Bhaskar Ltd. is commencing a new project for manufacture of a plastic component. The following information is available:

	Cost Per Unit Rs.
Materials	40

Direct Labour and Variable Expenses	20
Variable Selling Expenses	4

The fixed expenses are as under:
Manufacturing Rs. 6,000 p.m. (excluding depreciation)
Administration Rs. 48,000 p.a.
Selling 20% of combined administration and selling fixed costs.
Depreciation of Machinery @ 10% p.a. on original cost of Rs. 12,00,000.
The selling price is expected to be Rs. 96.
In the first two years of operations, production and sales are planned as follows:

	Production No. of Units	Sales No. of Units
Year 1	6,000	5,000
Year 2	9,000	8,500

To assess the working capital requirements, the following additional data is furnished:
(a) Stock of Materials - 2.25 months; average consumption.
(b) Work in Progress - Nil.
(c) Debtors -1 month's average sales at book value.
(d) Cash Balance -1 month's administration and selling expenses.
(e) Creditors for supply of materials -1 month's average purchases during the year.
(f) Creditors for expenses -1 month's average of all expenses during the year.
(g) Stock of finished goods is valued on weighted average office cost basis.
Prepare, for the second year (Year 2) -
(i) Statement of Profit/Loss (ignoring taxation) and
(ii) Statement of Working Capital requirements.

13. Computers India Ltd. produced and sold 6,000 Laptops in 2001 and their cost structure was as under:

	Per Unit
Raw Material	Rs. 12,000
Labour	Rs. 9,000
Manufacturing Overheads	Rs. 8,000
Administration and Selling Overheads	Rs. 3,000
Profit	25% of Total Cost

In 2002 they plan to Manufacture 7,800 Laptops and sell 7,280 units. In the mean time, it is estimated that:
(a) Raw material cost will go up by 10% p.a.
(b) Labour will reduce by 5% p.a.
(c) Manufacturing overheads will go up by 10% p.a.
(d) Administration and selling oveTheads per unit will remain unchanged.
(e) Selling price per unit will rise by 10% over last year It is further informed that:
(1) Raw Material will remain in stores for 4 weeks before issue to production.
(2) Process period is 3 weeks.
(3) 25% of sales will be on cash basis, 25% of sale will be against Bills of Exchange maturing in 8 weeks, balance will be sold at 4 weeks credit.
(4) 25% of Purchases are on cash basis. 25% of Purchases are from Japan and suppliers are to be given advance payment of 6 weeks. Balance suppliers allow a credit of 6 weeks.
(5) Wages and Manufacturing Overheads remain outstanding for 2 weeks, whereas Administration and Selling overheads are paid 2 weeks in advance.
(6) Cash and Bank Balance shall be maintained at Rs. 75,000/-.
(7) Company shall get Bank Overdraft equal to 50% of stock of raw material and finished

goods.
Work out working capital requirements for the year 2002.

[Ans.: AWCR = Rs. 36,131.75]

14. A proforma cost sheet of a Shrinath & Co. provides the following particulars:

Element of Cost	Amount per unit (Rs.)
Raw Material	80
Direct Labour	30
Overheads	60
Total Cost	170
Profit	30
Selling price	200

The following further particulars are available:
Raw materials are in stock on average one month. Production period is two week. For estimating work-in-progress consider 100% Material cost and 50% of labour and overheads.
Finished goods are in stock on an average for one month.
Credit allowed by suppliers is one month.
Credit allowed to debtors is two months.
Lag in payment of wages is 1.5 weeks. Lag in payment of overheads expenses is one month.
One-fourth of the output is sold against cash. Cash on hand at bank is expected to be Rs. 10,000.
You are required to prepare a statement showing the Working Capital needed to finance a level of activity of 2,000 units of production per week. Debtors to be considered at selling price.
You may assume that production is carried on evenly throughout the year.
Wages and Overheads accrue similarly and a time period of 4 weeks is equivalent to a month.
(Month to be converted in weeks). All purchases are on credit basis.

15. Aryan ceramics is going to produce and sale 5000 units per month in the year 2004. The material required per unit is Rs. 550/-. The direct labour is Rs. 12,00,000/- per month. The expenses are Rs. 1,26,00,000/- per annum. The sale price is fixed by calculating profit at 20% on sale price.
Calculate requirement of working capital for 2004 by taking into consideration following information:
(1) Stock of raw material will be two months.
(2) Process time is one month.
(3) Stock of finished goods will be 1.5 months.
(4) Credit allowed to 50% customer's two months on acceptance of bill and balance 50% customers given one month credit.
(5) 25% of expenses are paid one month in advance and balance 75% is paid after one month.
(6) Time lag in payment of wages is one month.
(7) 20% of material is purchased on cash basis and suppliers of 80% material give 1.5 months credit.
(8) Cash required is 15% of net working capital.

16. Complete the following statement of changes in working Capital.

				Changes in Working Capital	
Particulars		30-09-2003	30-09-2004	Increase	Decrease
		Rs.	Rs.	Rs.	Rs.

(A) CURRENT ASSETS: Stock in Trade		?	?	3,90,000	?
Cash at Bank		1,50,000	?		50,000
	TOTAL (A)	?	?		
(B) CURRENT LIABILITIES: Sundry Creditors Bills Payable		? 1,00,000	? ?		? 50,000
	TOTAL (B)	?	?		
Working Capital (A - B) Increase in working Capital		? 1,00,000	4,00,000		
		?	?	?	?

Additional Information:
(1) Current Ratio of the Co. on 30th September, 2003 is 2.5:1 and on 30th September, 2004 it is 2:1.
(2) Liquid Ratio of the Co. on 30th September 2004 is 1:5:1.

17. From the following Operating Cycle of Ambica Ltd., examine the short term financing policy of the company and render your comments on the same.

Particulars	Number of Days		
	Year	Year	Industry
Raw Material Holding	30	28	45
Work-in-Process Stock	17	15	20
Finished Goods Inventory	25	20	30
Average Collection Period	55	45	50
Average Payment Period	45	50	40

State assumptions if any, considered.

[Ans.: OC Duration: Year 2003 - 82 days; Year2004 - 58 days; Industry - 105 days;
No. of OC P.a.: Year 2003 - 4.45; Year 2004 - 6.29; Industry - 3.47]

18. Considering the data for Troy Company, calculate the maximum permissible Bank Finance under the three methods suggested by the Tandon Committee? Also calculate the excess or short borrowing, if any; and categorise the borrowers depending upon risk. Assume that the Core Current Assets (CCA) for Troy Company are Rs. 180 lakhs.

	Rs. in Million
Current Assets:	
Raw Material	16
Work-in-Progress	6
Finished Goods	12
Other Current Assets	2
	36
Current Liabilities:	
Trade Creditors	10
Bank Borrowings (Included Bills Discounted)	15
Other Current Liabilities	2
	27

[Ans.: Method - 1 = Rs. 18 mn.; Method - 2 = Rs. 15 mn.; Method - 3 = Rs. 1.5 mn.;

Short-term Borrowings = Rs. 3 mn.; Excess Borrowings = Rs. 13.5 mn]

19. A Ltd. company has Equity share capital Rs. 2,50,000; Preliminary expenses Rs. 5,000; Building Rs. 50,000 and Machinery Rs. 1,50,000.
The per unit figures are Rs. 4 for materials, Rs. 2.50 for wages, Re. 1 for expenses and Rs. 10 for selling price. 18,000 units are produced and sold during the year.
The process time is 1 month, the credit to customers is 3 months, the credit from suppliers is 1 month, the time lags in payment of wages and expenses are 1 month and 1 ½ months respectively, the raw materials remain in stock for 2 months and 2,000 units of finished goods are always retained in stock.

[Ans.: AWCR Rs. 90,000]

20. From the following information, estimate the working capital requirements and prepare a forecast Profit and Loss A/c and Balance Sheet:

	Rs.
Equity Share Capital	1,07,500
12% Debentures (Secured)	65,000
Fixed Assets as on 1st January	60,000

Production during the year was expected to be 60,000 units. Expected ratios of cost to selling prices are:
Raw Material 60%
Direct Wages 10%
Overheads 20% (including 10% Depreciation on Fixed Assets).
Raw materials are expected to remain in stores for an average of 2 months before issue to production. Each unit of production is expected to be in process for 1 month. Finished goods will remain in the warehouse awaiting despatch to customers for approximately 3 months. Credit allowed by creditors is 2 months from the date of delivery of raw materials.
Credit allowed to debtors is 3 months from the date of despatch.
Selling price is Rs. 4 per unit. There is a regular production and sales cycle.

21. From the following information pertaining to Swaraj Ltd., prepare a statement showing the working capital requirements:

Budgeted Sales	Rs. 2,60,000 p.a.
Analysis of Sales (Per Unit):	Rs.
Raw Materials	3
Direct Labour	4
Overhead	2
Total Cost	9
Profit	1
Sale Price	10

It is estimated that:
(1) Raw materials remain in stock for 3 weeks and finished goods for 2 weeks.
(2) Factory processing takes 3 weeks.
(3) Suppliers allow 6 weeks credit.
(4) Customers are allowed 8 weeks credit.
Assume that production and overhead's accrue evenly throughout the year.

[Ans.: AWCR Rs. 53,500]

22.

	Rs.	Rs.
Budgeted Sales		7,20,000

Less:		
Cost of Raw Material	2,16,000	
Direct Labour	2,88,000	
Overheads	1,44,000	6,48,000
Net Profit		72,000

It is estimated that:

(1) Raw materials are carried in stock for one month and finished goods for 15 days only.
(2) The production cycle takes one month.
(3) One month's credit is granted both for purchase of raw materials and sale of finished goods.
(4) Production and overhead's are even throughout the year.

[Ans.: AWCR Rs. 1,23,000]

23. The Board of Directors of New Engineering Company Ltd. requests you to prepare a statement showing the requirement of working capital for a forecast level of activity of 1,56,0 units in the ensuing year (52 weeks) from the following information available:

	Per Unit (Rs.)
Raw Materials	90
Wages	40
Overheads	75
	205
Profit	60
Selling Price	265

Other information:

(1) Raw materials remain in stock for 4 weeks. (2) Materials remain in process for 2 weeks. (3) Finished goods remain in stock on an average for 4 weeks. (4) Credit available from suppliers is for 4 weeks requirement of materials. (5) Time lag in receipts from debtors is 8 weeks. (6) Time lag in payment of wages is one and half week. (7) The time lag in payment of overheads is 4 weeks. (8) Cash in hand and with bank should always be Rs. 60,000. (9) The operations are expected to be distributed evenly throughout the year. (10) Of the total sales, 20% are expected to be for cash.

[Ans.: AWCR Rs. 74,13,000]

24. From the following information available to you on 1st January, prepare the working capital requirement forecast for the year:

Production during the previous year was 30,000 units. It is planned that this level of activity should be maintained during the current year. The expected ratios of the cost to selling prices are: Raw materials 60%, Direct wages 10% and Overheads 20%. Raw materials are expected to remain in stores for an average of 2 months before issue to production. Each unit of production is expected to be in process for 1 month, the raw materials being fed into the pipeline immediately and the labour and overhead's cost accruing evenly during the month. Finished goods will be in the storehouse approximately for 3 months before being despatched to customers. Creditors allow 2 months credit from the date of delivery of raw materials. Credit allowed to debtors is 3 months from the date of despatch. Selling price is Rs. 10 per unit. The cycle of production and sales is regular. Wages are paid on the first of every month for the previous month. Cash in hand with the company is normally Rs. 20,000.

[Ans.: AWCR Rs. 1,80,000]

25. On the basis of the programme formulated by Titanic Industries Ltd., to be implemented with effect from 1st January 2001, the management desires to know the quantum of working capital required to finance the estimated production.

The following cost percentage to sales have been extracted from the proforma cost sheet:

Materials	50%
Labour	20%
Overheads	10%

Production in 2000 was 1,00,000 units and it is proposed to maintain the production level during 2001.

(i) Raw materials are expected to remain in stores for an average period of 1 month before issuing for production.

(ii) Finished goods are to stay in warehouse on an average for 2 months before being sold to customers.

(iii) Each unit of production will be in process for an average period of 1 month.

(iv) Credit allowed by suppliers (from the date of delivery of materials) is 4 weeks.

(v) Debtors are allowed 2 months credit from the date of sales.

(vi) Selling price is Rs. 9 per unit.

(vii) Sales and production follow a consistent pattern throughout the year.

(viii) Other information:

	Rs.
Paid-up Share Capital	10,00,000
6% Debentures	1,00,000
Fixed Assets (1st January, 2000)	7,50,000

Assume that the activities are spread throughout the year.

[Ans.: AWCR Rs. 3,18,750]

26. Forecast the requirement of working capital of a Trading Company from the following particulars:

(1)	Projected Annual Sales (48 weeks)	Rs. 120 Lakhs
(2)	Percentage of Net Profit to Sales	20%
(3)	Average stock holding in terms of sales requirements	8 weeks
(4)	Average credit period allowed to debtors	10 weeks
(5)	Average credit period allowed by creditors	4 weeks

[Ans.: AWCR Rs. 33,00,000]

27. M/s Shailesh Enterprise manufactures and sells household goods to retailers. The following are the budgeted figures, for the year 2001-02.

	Rs.	
Sales		9,42,480
Less: Raw Materials	3,77,040	
Labour	1,85,160	
Overheads	1,38,000	7,00,200
Profit		2,42,280

Additional Information:

(1) Raw materials are carried in stock on an average for 2 months.

(2) Process period is 'A a month.

(3) Finished goods are carried in stock on an average for 1 month.

(4) Normal credit period allowed to customers is 3 months.

(5) Suppliers of raw materials allow 2 months time.

(6) Time lag in payment of labour and overheads is 1 month.

(7) Cash on hand and at bank is estimated at Rs. 20,000 throughout the year.
(8) The activity is spread over evenly during the year.
(9) The working capital is to be increased by 10% for contingencies.

[Ans.: AWCR Rs. 3,40,431.00]

28. Electronic Company Pvt. Ltd. manufactures and sells radio components. From the following particulars you are required to estimate the working capital requirement for the next year (50 weeks).
(1) The selling price per unit will be Rs. 15.
(2) The estimated sales are Rs. 1,50,000 for the year.
(3) The cost per unit is estimated to be:
Materials Rs. 5
Labour Rs. 3
Overheads Rs. 2
(4) Other information:
(a) Raw materials remain in stock for 3 weeks.
(b) Materials remain in process for 2 weeks.
(c) Finished goods remain in warehouse on an average for 2 weeks.
(d) Credit available from the suppliers of materials is 2 weeks.
(e) Credit allowed to customers is 4 weeks.
(f) Time lag in payment of labour and overheads is 2 weeks.
(g) Cash on hand and at bank is estimated at Rs. 20,000.
(h) Operations are expected to be distributed evenly throughout the year.

[Ans.: AWCR Rs. 38,000]

29. From the following details find the working capital requirements:
(1) The per unit costs will be: Material Rs. 7, Wages Rs. 4, and Expenses Rs. 5.
(2) The monthly production will be 1,000 units to be sold at Rs. 20 each.
(3) The raw materials and finished goods will remain in stock for 2 months and 3 months respectively.
(4) The process time will be 2 months.
(5) The customers will enjoy 1 ½ months credit.
(6) The raw materials will be purchased uniformly every day and payment for them will be made at the end of the month of purchase.
(7) Wages will be paid fortnightly in arrears.
(8) Expenses will be paid in advance on the 1st of every month.
(9) 75% of the sales will be for credit.
(10) The cash and bank balances will be equal to 20% of the total working capital.

[Ans.: AWCR Rs. 1,30,625]

30. Patni Co. Ltd. wants to purchase a business and consults you about the working capital which will be required in the first year's working.
You are given the following estimates and instructed to add 15% to your computed figure to allow for contingencies.

		Figures for the year Rs.
(a)	Average amount; locked up in stocks:	
	Stock of finished product	25,000

	Stock of stores, materials, etc.	28,000
(b)	Average credit given:	
	Inland Sales - 6 weeks credit	3,12,000
	Export Sales – *1 ½* weeks credit	78,000
(c)	Lag in payment of wages and other outgoings:	
	Wages *1 ½* weeks	2,60,000
	Rent, Royalties, etc. 6 months	10,000
	Salary clerical staff *1 ½* months	62,400
	Manager salary *½* month	4,800
	Miscellaneous expenses *1 ½* months	48,000
(d)	Payment in advance:	
	Sundry expenses (paid quarterly in advance)	16,000
(e)	Undrawn profits on the average throughout the year	11,000

[Ans.: AWCR Rs. 79,062.50]

31. From the following information prepare a statement in columnar form showing the working capital requirements: (1) in total and (2) as regards each constituent part of the working capital:

Budgeted Sales	Rs. 2,60,000 p.a.
Analysis of one rupee of sales:	Rs.
Raw Materials	0.30
Direct Labour	0.40
Overhead	0.20
Total Cost	0.90
Profit	0.10
Sales	1.00

It is estimated that:
(1) Raw materials are carried in stock for 3 weeks and finished goods for 2 weeks.
(2) Factory processing will take 3 weeks.
(3) Suppliers will give 4 weeks credit.
(4) Customers will require 8 weeks credit.
It may be assumed that production and overhead's accrue evenly throughout the year.

[Ans.: A WCR Rs. 56,500]

32. DNA Ltd. furnishes the following income statement for the year 2005:

	Rs.	Rs.
Sales (Credit 2 months)		12,00,000
Purchases (Credit 1 month)	3,90,000	
Wages (Credit 'A a month)	1,02,000	
Factory rent (Payable quarterly in advance)	72,000	
Factory Expenses (1 month's credit)	96,000	
Office Expenses (1 month's credit)	12,000	
Managing Directors Salary (2 months Credit)	48,000	8,00,000
Profit		4,00,000

Additional information:
Average investment in stock of raw materials and WIP is expected to be Rs. 96,000 and 54,000 respectively. Average investment in stock of finished goods is expected to be Rs. 55,000.
You are required to forecast the working capital requirement of the company.

[Ans.: AWCR Rs. 3,69,250]

33. Hindustan Cables Ltd. sells its goods in domestic as well as in foreign market. Domestic selling prices are at 40% gross profit on sales after considering depreciation and the export prices are 10% below the domestic prices. Following are the estimated annual figures for next year:

	Rs.	Rs.
Sales: Domestic	1,80,000	
Export	36,000	2,16,000
Material Consumption		54,000
Wages (time lag 1 month)		42,000
Manufacturing Expenses (1 month in arrears)		66,000
Depreciation		18,000
Administration Expenses (1 month in arrears)		60,000
Sales Promotion Expenses (Payable quarterly in advance)		30,000

The company maintains stocks of raw materials and of finished goods each for 1 month as also a cash balance of Rs. 25,000.
The domestic and foreign customers get 2 and 3 months credit respectively, while the suppliers give 2 months credit.
Ascertain the working capital requirement keeping additional 10% for contingencies.

34. Prepare an estimate of working capital requirement from the following particulars:
(1) Inland sales: Rs. 50,400 p.a.
(2) Export sales: Rs. 22,680 p.a.
(3) Raw materials consumed: Rs. 42,480 p.a.
(4) Wages: Rs. 12,000 p.a.
(5) Expenses: Rs. 6,000 p.a.
(6) Gross profit on inland sales: 25% of cost.
(7) The export selling price is 10% below the inland selling price.
(8) The average stock of finished goods is sufficient to sustain inland sales for 2 months and export sales for 1 month.
(9) Cash for contingencies: 10% of the total working capital.
(10) The different time periods are:
(a) Raw material will remain in stock for 2 months.
(b) Process time 1 month.
(c) Inland debtors enjoy a credit of 4 months.
(d) Export debtors enjoy a credit of 3 months.
(e) Suppliers of raw materials extend credit of 2 ½ months.
(f) The time lag in payment of wages is 1 ½ months.
(g) The time lag in payment of expenses is 1 ½ month.

[Ans.: AWCR Rs. 34,600]

35. The cost sheet of a company provides the folfowing data:

	Cost Per Unit Rs.
Raw Material	50
Direct Labour	20
Overhead (including depreciation of Rs. 10)	40
Total Cost	110
Profit	20
Selling Price	130

Average raw material in stock is for one month. Average material in progress is for half a month. Credit allowed by suppliers : one month. Credit allowed to debtors : one month. Average time lag in payment of wages : 10 days. Average time lag in payment of overheads : 30 days. 25% of the sales are on cash basis. Cash balance expected to be Rs. 1,00,000. Finished goods lie in the warehouse for one month.

You are required to prepare a statement showing working capital needed to finance a level of activity of 50,000 units of output! Production is evenly carried on throughout the year, and wages and overheads accrue similarly.

36. From the following information extracted from the manufacturing company, compute the operating cycle in days and working capital requirements.

Period Covered Averaqe period of credit showed by	365 Days 6 days
	Amount (Rs. '000)
Average Total Debtors Outstanding	420
Raw Materials Consumption	5,840
Total Production Cost	10,220
Total Cost of Sales	10,950
Sales for the year (credit)	12,775
Value of Average Stock Maintained:	
Raw Material	480
Work-in-Progress	420
Finished Goods	660

[Ans.: OC = R+ W+F+D-C, OC = 30 + 15 + 22 + 12 - 6, OC = 73 days, No. of OC = 5 cycles p.a., AWCR Rs. 21,90,000]

37. Calculate the amount of working capital requirement for KJBC Pvt. Ltd for year 2007. from the following information:

	Rs. (Per Unit)
Raw material	160
Direct labour	60
Overheads	120
Total cost	340
Profit	60
Selling price	400

Other Information:

(i) Raw materials are held in stock on an average for one month.
(ii) Work in process on an average for half-a-month.
(iii) Finished goods are in stock on an average for one month.
(iv) Credit allowed by suppliers is one month.
(v) Credit allowed to debtors is two months.
(vi) Time lag in payment of wages is half-a-month.
(vii) Time lag in payment of overhead expenses is one month.
(viii) Cash Sales - One fourth of the Total Sales.
(ix) Cash in hand and at the bank is expected to be Rs. 50,000/-.

Level of production 1,04,000 units.

[Ans.: AWCR Rs. 79,80,000]

38. Gemini metals Ltd. has called for a statement showing the working capital needed to finance a level of activities of 3,00,000 units of output for the year. The cost structure for the company product for the above mentioned activity level is detailed below.

	Cost Per Unit Rs.
Raw	20
Direct Labour	5
Overhead	15
Total Cost	40
Profit	10
Selling Price	50

From previous records it indicates that Raw materials are held in stock on an average for two months. Work in progress will approximate to half a month production. Finished goods remain in ware house on an average for a month Supplier of materials extends a month credit. Two months credit is normally allowed to debtors. A minimum cash balance of Rs. 25,000 is expected to be maintained. The production pattern is assumed to be even during the year.
Prepare the statement of working capital required.

39. Amruta Enterprises (having installed capacity of 2,00,000 units p.a.) produced 1,00,000 units in the financial year 2006-2007. The cost - structure in 2006 - 2007 was as under:

(a)	Raw Materials	40%
(b)	Wages	15%
(c)	Factory Overheads	10%
(d)	Administrative and Selling Overheads	15%
	Total cost	80%
(e)	Profit	20%
	Selling Price	100%

The selling price, which was Rs. 500 per unit in 2006-2007, is estimated to be fixed as at Rs. 600 per unit for the year 2007-2008; and production and sale expected to increase by 40,000 units. It is, further, anticipated that raw materials cost per unit would increase by 10% due to price rise, whereas wage rate per unit would decrease by 20% due to automation 56% of all the overheads are fixed and balance are variable. As a Management Accountant you are required to prepare (a) Cost statement for the year 2007-2008 and (b) Statement showing estimated working capital required for the year 2007-2008 after considering the following additional information:

(a) Raw materials stock equivalent to two and half months consumption would be stored.

(b) Production time is one month. Raw materials are introduced at the beginning of the process, whereas wages and factory overheads accrue evenly during the production period.

(c) Two months stock of finished goods (valued at factory cost) would be carried in stock.

(d) 20% of raw materials would be imported from China and advance payment of two months would be made there against. 15% of indigenous raw materials requirement would be procured locally against immediate cash payment. Suppliers of balance of indigenous raw materials, allow a credit of one month.

(e) 50% of customers would enjoy a credit of one month, whereas balance 50% of customers would accept a bill of exchange payable after three months. These bills of exchange are immediately hypothecated with the bank against which overdraft facility would be available equal to 70% of amount of bills of exchange.

(f) Time - lag in payment of wages would be one month and for all. overheads, it would be half month.

(g) The company would carry cash balance of Rs. 40,000 in its currency chest.

Debtors are to be estimated at selling price.

(h) The activities are spread evenly throughout the year. Degree of completion of work-in-progress is 50%

40. Y Ltd. sells goods in the domestic market at a gross profit of 25% (without depreciation being considered). Following are its annual figures.

	Rs.
Sales: Domestic (1 month credit)	12,00,000
Export - (3 months credit)	5,40,000
(Sale price: 10% below domestic price)	
Materials used (2 month's credit)	4,50,000
Sales Promotion expenses (quarterly in advance)	24,000
Wages paid (1/2 Month in arrears)	50,000
Manufacturing expenses (1 month in)	1,20,000

It keeps 1 months stock of raw material and finished goods and Cash balance of Rs. 1,00,000 available to it after utilising if necessary, bank overdraft of Rs. 50,000.
Calculate Y Ltd.'s working capital requirements on adding 15% safety margin.

41. T Ltd. has consulted you to advise them the average amount of their first year's Working Capital requirements on the basis of following estimates after adding 10% to the computed figure for contingencies:
(A) Projected Annual Incomes/Expenses:

	Rs.
Material consumed	14,00,000
Wages	2,10,000
Manufacturing expenses (including Depreciation Rs. 72,000)	2,70,000
Advertising, Sales Promotion expenses	90,000
Administration Expenses	1,80,000
Distribution Expenses	1,20,000
Provision for Income Tax	72,000
Total Costs	23,42,000
Net Profit	58,000
Sales	24,00,000

B) Other relevant data:
(i) Average Stocks:
(a) Finished Product: 1 month
(b) Materials: 1 1/2 months
(c) W.I.P.: (Materials: 1 ½ months, Wages and Manufacturing expenses: 1 1/2 month)
(ii) Average Credit:
(a) From Suppliers: 3 months
(b) To customers: 2 months
(iii) Time-lag in Expenses' payments:
(a) Advertising, sales Promotion: 2 months
(b) Wages and other expenses: 1 month
(iv) Advance Payments: Income-tax in 3 equal instalments
(v) Cash balance requirements: Rs. 90,000.

42. Short-Fin Ltd. furnishes the following detail's and request you to ascertain the estimated requirement of working capital.
The sales are estimated at Rs. 33,80,000 from sale of 65,000 Units closing year.
The cost structure is:

	Rs. p/u
Material	18
Wages	12
Overhead	12
	42

(a) Material remain in store for 7 weeks.
(b) Processing time 6 weeks.
(c) Goods remain in warehouse for 4 weeks.
(d) 20% of sales and 10% of purchases are on cash basis.
(e) Out of credit sales:
50% is sold to Wholesalers on 6 weeks credit and 50% to Distributors on 4 weeks credit.
(f) Creditor offer 4 weeks credit.
(g) Wages are paid fortnightly.
(h) Overhead expenses are with one month time lag.
(i) Minimum cash balance to be maintained is equivalent to cash expenses of one week.
(j) Reserve Margin to be provided @ 5% of Net working capital.

43. Arjun Enterprise expect to sale 5,200 units @ Rs. 100. per unit.
Its cost structure is:

Material Cost	40%
Wages Cost	15%
Cash Overheads	30%
Depreciation	5%
Profit	10%

Assuming a year to be equivalent to 52 weeks and a period 4 weeks equal to one month, estimate the working capital requirements.
The stock and credit period are:
(a) Stock held in Raw Material and Finished Goods - 4 weeks each.
(b) Processing time - 1/2 month.
(c) 25% of sales and 20% of Purchases are expected on Cashbasis.
(d) Credit offered and enjoyed by the enterprise is 1 month
(e) Minimum Cash Balance required Rs. 50,000.
(f) Though all activities are evenly spread over a variation of 10% may arise, for which provision to be considered.
Prepare an Estimate of Working Capital requirements stating the assumptions made wherever required.

44. Navin Limited is commencing a new project for manufacture of a plastic component.
The following cost information has ascertained for annual production of 12,000 units which is the full capacity.

	Cost Per unit (Rs.)
Materials	40
Direct Labour and Variable Expenses	20
Fixed Manufacturing Expenses	6
Depreciation	10
Fixed Administration Expenses	4

	80

The selling price per unit is expected to be Rs. 96 and selling expenses Rs.5 per unit, 80% of which is Variable. In the first two years of operations, production and sales are expected to be as follows:

Year	Production No. of Units	Sales No. of Units
1	6,000	5,000
2	9,000	8,500

To assess the working capital requirement, the following additional information is available:

(a)	Stock of Materials	2.25 month's average consumption
(b)	Work in process	Nill
(c)	Debtors at Sales Price	1 month's average sales
(d)	Cash Balance	Rs. 10,000
(e)	Creditors for supply of materials	1 month's average purchase during the year
(f)	Creditors for expenses	1 month's average of all expenses during the year

Prepare for two years: (i) A projected statement of Profit/Loss (ignoring taxation); and (ii) A project statement of working capital requirement.

45. Sangam Ltd. produces 1,40,400 units during the year and sells them @ Rs. 350 per unit. Cost structure of a product is as follows.

Particulars	Percentage
Raw Material	40%
Direct Labour	16%
Factory Overheads	10%
Office Overheads	12%
Selling overheads	14%
Profit	8%
Selling Price	100%

The following additional information is available:

(a) The activities of purchasing, producing and selling occur evenly throughout the year.

(b) Raw materials equivalent to 4 weeks supply is stored in godown. Material costing Rs. 50 per unit is imported from China and Company has to pay 4 weeks in advance.

(c) The production process takes 2 weeks. All material is issued at the beginning of the process, whereas wages and overheads accrued evenly during the production process.

(d) Finished goods equal to 6 weeks production are carried in stock (to be valued at office cost).

(e) Debtors get 8 weeks credit 20% of total sales are on cash basis. Debtors are to be valued at selling price of goods. 50% of the Debtors accept Bill of Exchange payable after 8 weeks. These bills are immediately hypothecated with Bank of Baroda who grant 75% facility there against.

(f) Indigenous Creditors allows 4 weeks credit. However 10% of indigenous purchases are paid immediately.

(g) Time lag in payment of wages and all overheads is 2 weeks and 3 weeks respectively.

(h) Bank of Baroda has also granted Cash Credit facility to the tune of 80% of all paid stock (i.e. Total stock minus creditors) which facility is always fully utilised.

(i) The Company maintains 10% of working capital (inclusive of Cash balance) in its currency chest.

Draw a forecast of working capital margin requirements of the factory of Sangam Ltd.

46. The Omega Co. plans to sell 1,80,000 units at a price of Rs. 120 per unit of output. Based on past data, after making necessary adjustments for inflation, the important components of costs have been estimated. The company follows level production and sales as the demand for its output does not have any seasonality features. The unit costs at a sales level of 15,000 units per month are presented below:

	Unit Cost Rs.
Cost of Raw Materials	40
Labour	30
Overheads	20
Total	90

Based on the past data, the durations of costs at different stages of the operating cycle are determined as shown below:

Particulars	
Raw material stage	2 months
Work-in-process stage	1 months
Finished goods stage	1 months
Accounts receivable	2 months

As a policy the company desires to have a minimum cash balance of Rs. 4 lakhs.
Required: (a) Based on the above information, calculate the investment in current assets and forecast the gross working capital requirements of Omega Co. (b) If the suppliers of raw materials allow credit for two months, what impact will it have on the working capital required?

47. From the following particulars of super Market Limited, estimate their working capital requirement for the year ended 31st March 2001

Balance as on 1 st April, 2000	Rs.
Debtor	70,000
Bills Receivable	5,000
Creditors	55,000
Bills Payable	4,000
Stock	25,000
Bank Balance (Credit)	1,000
Transaction during the year ended 31st March, 2001	Rs.
Sales for the year (with uniform profit of 25% on sales)	3,00,000
Purchases for the year	2,10,000
Payment to creditors during the year	1,70,000
Receipt from debtors during the year	2,50,000
Bills Receivable received during the year	3,000
Bills payable accepted during the year	2,000
Amount received against Bills receivable	2,000
Amount paid against bills Payable	1,000
Overheads on annual basis (one sixth to remain	24,000
Purchased fixed assets by cheque payment	50,000
Contingencies to be kept at 10%	

48. From the following information prepare a statement of working capital requirements for the year 2003-04. The budgeted profit and loss account for the year ending 31st March, 2004 is as under:

	Rs.	Rs.
Sales		18,00,00

Less: Expenses:		
Materials	7,20,000	
Wages	5,40,000	
Overheads	1,80,000	
		14,40,00
Profit		3,60,000

Other information:
(a) Production and Sales are uniform throughout the year.
(b) Raw Materials Stock maintained for one month.
(c) Work in progress average one month. Valuation to be made at materials cost plus 50% each of wages and overheads.
(d) Debtors to be given two months credit and suppliers will also give two months credit.
(e) Finished Goods Stock to be maintained for half month.
(f) 25% of the sales will be on cash and balance on credit.
(g) Bank Balance to be maintained Rs. 35,000.

49. From the following information prepare a statement showing the working capital required to finance a level of activity of 2,400 units per annum. Production and sales will be uniform throughout the year.
(i) Selling price Rs. 500 per unit.
(ii) Materials Constitute 50% of selling price, wages 15% of selling price and overheads 25% of selling price.
(iii) Raw Materials stock required one month.
(iv) Work in Progress to be maintained for one month. Valuation to be made at materials cost plus 50% of wages and overheads.
(v) Finished Goods stock to be maintained for three months.
(vi) Credit allowed to customers one month and credit allowed by suppliers two months.
(vii) Bank Balance to be maintained Rs. 20,000.

50. RTD Ltd. submit following revenue statement for 2005

	Rs.
Sales (20% for cash) Material Cost (10% for cash) Wages Cost Office and Selling costs (including Depreciation Rs. 60,000) Income tax Profit	9,00,000 3,90,000 1,50,000 1,80,000 72,000 1,08,000

The company holds stocks as under:

Raw material	9%
Work in Progress	4.5%
Finished Goods	9%
Credit period allowed	18%
Credit period enjoyed	12%

Income tax payable in advance in four instalments every quarter. Cash on hand is maintained at 2% cash cost, excluding income tax.
Contingency is expected @ 10% of net working capital.
Estimate working Capital required.

51. Aakash Enterprises Ltd. provides the following information for the year 2007.

(i) Projected annual material and Labour cost of the Co. is Rs. 16,20,000 and Rs. 14,80,000 respectively.

(ii) Cost of sales consists of Material, Labour and Overhead Cost only.

(iii) Production and sales take place evenly throughout the year.

(iv) As per the credit policy of the Co. Debtors (at selling price) at two months credit will be Rs. 5,50,000. However for working capital statement, investment in Debtors is to be considered at cost. Of the total sales 25% are on Cash basis.

(v) Raw Materials are in stock on an average for one month.

(vi) Finished goods are in stock on an average for half a month.

(vii) Credit allowed by suppliers is one month, but 10% of purchases are on cash basis.

(viii) Materials remain in processes (valued at cost of Raw Material plus 50% of Labour and Overheads) on an average for half month.

(ix) Company sells goods at 20% profit on selling price.

(x) Time lag in payment of wages and overheads is half month.

(xi) Cash balance to be maintained at 10% of Net Working Capital excluding such Cash Balance.

You are required to prepare a statement showing the Working Capital Requirements of Aakash Enterprises Ltd. for the year 2007. (ignore Paise in your calculation).