

Chapter 11

Management of Working Capital

Unit I: Introduction to Working Capital Management

Q1. Explain the meaning of the term “Working Capital”. Also give its formula.

Answer:

- ✓ In accounting term working capital is the difference between the current assets and current liabilities.
- ✓ If we break down the components of working capital we will find working capital as follows:

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Q2. Mention the different situations when an asset is classified as current and when a liability is classified as current liability.

Answer:

An asset is classified as current asset in the following situations:

- i. It is expected to be realized or intends to be sold or consumed in normal operating cycle of the entity.
- ii. The asset is primarily held for the purpose of trading.
- iii. It is expected to be realized within 12 months after the reporting period.
- iv. It is non-restricted cash or cash-equivalent.

Whereas, a liability is classified as current liability in the following situations:

- i. It is expected to be settled in normal operating cycle of the entity.
- ii. The liability is held primarily for the purpose of trading.
- iii. It is expected to be settled within twelve months after the reporting period.

Q3. Mention the different categories into which current assets and current liabilities can be grouped for the purpose of working capital management.

Answer:

The current assets of an entity, for the purpose of working capital management can be grouped into the following main heads:

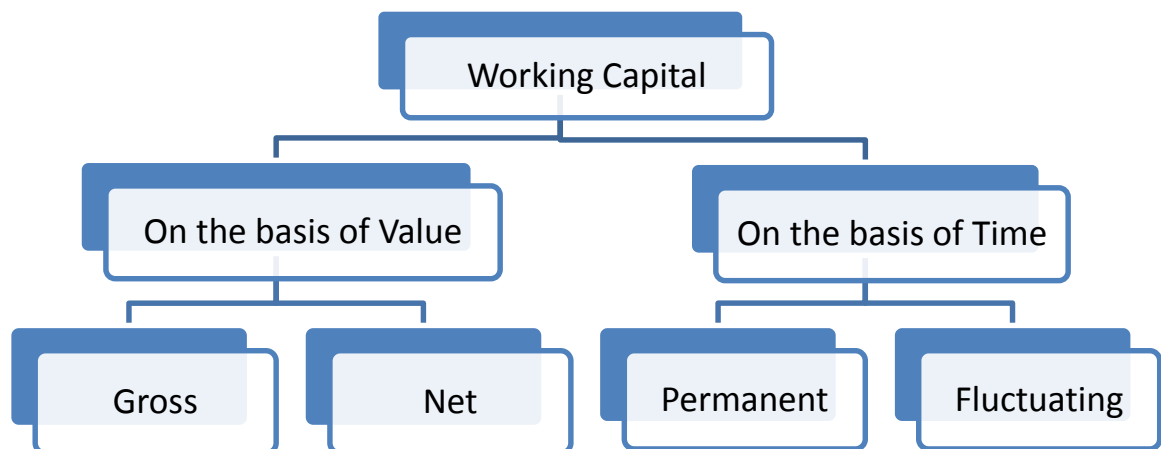
- a. Inventory (raw material, work in process and finished goods)
- b. Receivables (trade receivables and bills receivables)
- c. Cash or cash equivalents (short-term marketable securities)
- d. Prepaid expenses

On the other hand current liabilities of an entity, for the purpose of working capital management can be grouped into the following main heads:

- a. Payable (trade payables and bills receivables)
- b. Outstanding payments (wages & salary etc.)

Q4. The concept of working Capital can be explained through different angles. Depict them in a pictorial format.

Answer:



Q5. Explain the concept of working Capital from the point of view of value.

Answer:

- ✓ From the value point of view, Working Capital can be defined as Gross Working Capital or Net Working Capital.
- ✓ Gross working capital refers to the firm's investment in current assets.
- ✓ Net working capital refers to the difference between current assets and current liabilities.
- ✓ A positive working capital indicates the company's ability to pay its short-term liabilities.
- ✓ On the other hand a negative working capital shows inability of an entity to meet its short-term liabilities.

Q6. Explain the concept of working Capital from the point of view of time.

Answer:

- ✓ From the point of view of time, working capital can be divided into two categories viz., Permanent and Fluctuating (temporary).
- ✓ Permanent working capital:
 - It refers to the base working capital, which is the minimum level of investment in the current assets that is carried by the entity at all times to carry its day to day activities.
- ✓ Temporary working capital:
 - It refers to that part of total working capital, which is required by an entity in addition to the permanent working capital.
 - It is also called variable working capital which is used to finance the short term working capital requirements which arises due to fluctuation in sales volume.
- ✓ Both kind of working capital, i.e. permanent and fluctuating (temporary) are necessary to facilitate production and sales through the operating cycle.

Q7. What will happen when the company has working capital, other than optimum level (that is, large working capital and inadequate working capital)?

Answer:

- ✓ Management of working capital is an essential task of the finance manager. He has to ensure that the amount of working capital available with his concern is neither too large nor too small for its requirements.
- ✓ Large working capital:
 - A large amount of working capital would mean that the company has idle funds.
 - Also, large working capital results in over capitalization.
 - Over capitalization implies that a company has too large funds for its requirements.
 - Since funds have a cost, the company has to pay huge amount as interest on such funds.
 - This result in a low rate of return, a situation which implies a less than optimal use of resources.
- ✓ Inadequate Working Capital:
 - If the firm has inadequate working capital, such firm runs the risk of insolvency.
 - Paucity of working capital may lead to a situation where the firm may not be able to meet its liabilities.

Q8. Explain why is it essential to maintain working capital in short term as well as long term?

Answer:

- ✓ Maintaining adequate working capital is not just important in the short-term but in the long-term as well.
- ✓ When businesses make investment decisions they must not only consider the financial outlay involved with acquiring the new machine or the new building, etc., but must also take account of the additional current assets that are usually required with any expansion of activity.
- ✓ For e.g.:-
 - Increased production leads to holding of additional stocks of raw materials and work-in-progress.
 - An increased sale usually means that the level of debtors will increase.
 - A general increase in the firm's scale of operations tends to imply a need for greater levels of working capital.

Q9. What are the different indicators of working capital situation? Mention the optimum level of those indicators.

Answer:

- ✓ Current ratio (current assets/current liabilities) (along with acid test ratio to supplement it) has traditionally been considered the best indicator of the working capital situation.
- ✓ It is understood that a current ratio of 2 (two) for a manufacturing firm implies that the firm has an optimum amount of working capital.
- ✓ This is supplemented by Acid Test Ratio (Quick assets/Current liabilities) which should be at least 1.
- ✓ Thus it is considered that there is a comfortable liquidity position if liquid current assets are equal to current liabilities.
- ✓ As a thumb rule, this may be quite adequate.

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- ✓ However, it should be remembered that optimum working capital can be determined only with reference to the particular circumstances of a specific situation.
- ✓ In nutshell, a firm should have adequate working capital to run its business operations.
- ✓ Both excessive as well as inadequate working capital positions are dangerous

Q10. Mention the different functions with which working capital management is primarily concerned.

Answer:

- ✓ Working capital management is primarily concerned with the following functions:
 - a) Maintaining adequate working capital (management of the level of individual current assets and the current liabilities) or, Investment in working capital and
 - b) Financing of the working capital.
- ✓ Investment in working capital is concerned with the level of investment in the current assets. It gives the answer of 'How much' fund to be tied in to achieve the organization objectives (i.e. Effectiveness of fund).
- ✓ Financing decision concerned with the arrangement of funds to finance the working capital. It gives the answer 'Where from' fund to be sourced' at lowest cost as possible (i.e. Economy).

Q11. Briefly explain the entire exercise of working capital management.

Answer:

- ✓ For maintaining adequate working capital, Finance Manager needs to plan and compute the working capital requirement for its business.
- ✓ Sound financial and statistical techniques, supported by judgment should be used to predict the quantum of working capital required at different times.
- ✓ And once the requirement has been computed he needs to ensure that it is financed properly.

- ✓ This whole exercise is nothing but Working Capital Management.

Q12. Mention the factors which need to be considered while planning for working capital requirement.

Or,

What are the different components/determinants of working capital? Briefly explain them.

Answer:

The following factors need to be considered while planning for working capital requirement:

1. Cash –
 - ✓ Identify the cash balance which allows for the business to meet day-to-day expenses, but reduces cash holding costs.
2. Inventory –
 - ✓ Identify the level of inventory which allows for uninterrupted production but reduces the investment in raw materials and hence increases cash flow.
 - ✓ For this techniques like Just in Time (JIT) and Economic order quantity (EOQ) are used.
3. Receivables –
 - ✓ Identify the appropriate credit policy, i.e., credit terms which will attract customers, such that any impact on cash flows and the cash conversion cycle will be offset by increased revenue and hence Return on Capital (or vice versa).
 - ✓ The tools like Discounts and allowances are used for this.
4. Short-term Financing Options –
 - ✓ Inventory is ideally financed by credit granted by the supplier; dependent on the cash conversion cycle.
 - ✓ It may however, be necessary to utilize a bank loan (or overdraft), or to “convert debtors to cash” through “factoring” in order to finance working capital requirements.
5. Nature of Business –
 - ✓ For e.g. in a business of restaurant, most of the sales are in Cash.

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- ✓ Therefore need for working capital is very less.
- 6. Market and Demand Conditions –
 - ✓ For e.g. if an item's demand far exceeds its production, the working capital requirement would be less as investment in finished goods inventory would be very less.
- 7. Technology and Manufacturing Policies –
 - ✓ For e.g. in some businesses the demand for goods is seasonal, in that case a business may follow a policy for steady production through out over the whole year or instead may chose policy of production only during the demand season.
- 8. Operating Efficiency –
 - ✓ A company can reduce the working capital requirement by eliminating waste, improving coordination etc.
- 9. Price Level Changes –
 - ✓ For e.g. rising prices necessitate the use of more funds for maintaining an existing level of activity.
 - ✓ For the same level of current assets, higher cash outlays are required.
 - ✓ Therefore the effect of rising prices is that a higher amount of working capital is required.

Q13. Management of working capital involves 3Es. Mention them

Answer:

The management of working capital involves 3Es, which have been mentioned as below:

- i. Economy
- ii. Efficiency
- iii. Effectiveness

Q14. How can we group the scope of working capital management?

Answer:

The scope of working capital management can be grouped into two broad areas:

- i. Profitability and Liquidity
- ii. Investment and Financing Decision

Q15. Briefly explain Profitability and Liquidity as a scope of working capital management. Also explain why a trade-off is necessary between liquidity and profitability.

Answer:

- ✓ For uninterrupted and smooth functioning of the day to day business of an entity it is important to maintain liquidity of funds evenly.
- ✓ Also we know that each rupee of capital bears some cost. So, while maintaining liquidity the cost aspect needs to be borne in mind.
- ✓ Unnecessary tying up funds in idle assets not only reduces the liquidity but also reduces the opportunity to earn better return from a productive asset.
- ✓ Hence, a trade-off is required between the liquidity and profitability which increases the profitability without disturbing the day to day functioning.
- ✓ This requires 3Es, i.e. economy in financing, efficiency in utilization and effectiveness in achieving the intended objectives.

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Q16. Summarize and present in a tabular format, the advantages of profitability and liquidity, with respect to the components of working capital. Also present in the same table the trade-off between profitability and liquidity.

Answer:

Components of Working Capital	Advantages of higher side (Profitability)	Trade-off (between Profitability and Liquidity)	Advantages of lower side (Liquidity)
Inventory	Fewer stock-outs increase the profitability	Use techniques like EOQ, JIT etc. to carry optimum level of inventory.	Lower inventory requires less capital but endangered stock-out and loss of goodwill.
Receivables	Higher credit period attract customers and increase revenue	Evaluate the credit policy; use the services of debt management (factoring) agencies	Cash sales provide liquidity but fails to boost sales and revenue
Pre-payment of Expenses	Reduces uncertainty and profitability in inflationary environment	Cost-Benefit analysis required	Improves or maintains liquidity
Cash and Cash Equivalents	Payables are honoured in time, improves the goodwill and helpful in getting future discounts.	Cash budgets and other cash management techniques can be used	Cash can be invested in some other investment avenues
Payables and Expenses	Capital can be used in some other investment avenues	Evaluate the credit policy and related cost	Payables are honoured in time, improves the goodwill and helpful in getting future discounts

Q17. How will a company decide how much amount is required to be invested in current assets as working capital?

Answer:

- ✓ How much amount is required to be invested in current assets as working capital is a matter of policy decision by an entity.
- ✓ It has to be decided in the light of organizational objectives, trade policies and financial (cost-benefit) considerations.
- ✓ There is not set rules for deciding the level of investment in working capital.
- ✓ Some organizations due to its peculiarity require more investment than others.
- ✓ For example:
 - An infrastructure development company requires more investment in its working capital as there may be huge inventory in the form of work in progress
 - While, on the other hand a company which is engaged in fast food business, comparatively requires less investment.

Q18. The amount which is required to be invested in current assets as working capital depends on various factors. Mention and briefly explain those factors.

Answer:

The level of investment depends on the various factors listed below:

- a. Nature of Industry:
Construction companies, breweries etc. requires large investment in working capital due to long gestation period.
- b. Types of products:
Consumer durable has large inventory as compared to perishable products.
- c. Manufacturing vs. Trading vs. Service:
A manufacturing entity has to maintain three levels of inventory i.e. raw material, work-in-process and finished goods whereas a trading

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and a service entity has to maintain inventory only in the form of trading stock and consumables respectively.

d. Volume of sales:

Where the sales are high, there is a possibility of high receivables as well.

e. Credit policy:

An entity whose credit policy is liberal has not only high level of receivables but requires more capital to fund raw material purchases.

Q19. Working capital decisions are categorized into 3 approaches, based on the organizational policy and risk-return trade-off. Briefly explain those approaches.

Answer:

Based on the organizational policy and risk-return trade off, working capital investment decisions are categorized into the following three approaches:

a. Aggressive:

- ✓ Here investment in working capital is kept at minimal investment in current assets which means the entity does hold lower level of inventory, follow strict credit policy, keeps less cash balance etc.
- ✓ The advantage of this approach is that - lower level of fund is tied in the working capital which results in lower financial costs
- ✓ But the flip side could - be that the organization could not grow which leads to lower utilization of fixed assets and long term debts.
- ✓ In the long run firm stay behind the competitors.

b. Conservative:

- ✓ In this approach, organizations invest high capital in current assets.
- ✓ Organisations also keep inventory level higher, follows liberal credit policies, and cash balance as high as to meet any current liabilities immediately.

- ✓ The advantage of this approach are - higher sales volume, increased demand due to liberal credit policy and increase goodwill among the suppliers due to payment in short time.
 - ✓ The disadvantages are –
 - Increase cost of capital,
 - Higher risk of bad debt, and
 - Shortage of liquidity in long run to longer operating cycles.
- c. Moderate:
- ✓ This approach is in between the above two approaches.
 - ✓ Under this approach a balance between the risk and return is maintained to gain more by using the funds in very efficient manner.

Q20. Briefly explain Current Assets to Fixed Assets Ratio.

Answer:

- ✓ Dividing current assets by fixed assets gives current assets/fixed assets ratio.
- ✓ A firm needs fixed and current assets to support a particular level of output.
- ✓ As the firm's output and sales increases, the need for current assets also increases.
- ✓ Generally, current assets do not increase in direct proportion to output; current assets may increase at a decreasing rate with output.
- ✓ As the output increases, the firm starts using its current asset more efficiently.
- ✓ The level of the current assets can be measured by creating a relationship between current assets and fixed assets.

Q21. Explain how Current Assets to Fixed Assets Ratio indicate conservative current assets policy and aggressive current assets policy.

Answer:

- ✓ Dividing current assets by fixed assets gives current assets/fixed assets ratio.
- ✓ Assuming a constant level of fixed assets,
 - A higher current assets/fixed assets ratio indicates a **conservative** current assets policy and
 - A lower current assets/fixed assets ratio means an **aggressive** current assets policy assuming all factors to be constant.
- ✓ A **conservative** policy implies greater liquidity and lower risk whereas an **aggressive** policy indicates poor liquidity and higher risk.
- ✓ Moderate current assets policy will fall in the middle of conservative and aggressive policies.
- ✓ The current assets policy of most of the firms may fall between these two extreme policies.

Q22. Operating cycle is one of the most reliable methods of estimating working capital needs of an organization. However there are other different methods too which can be used in estimating working capital needs. Briefly explain those methods.

Answer:

Operating cycle is one of the most reliable methods for computation of Working Capital. However, other methods like ratio of sales and ratio of fixed investment may also be used to determine the Working Capital requirements, which have been explained below:

- i. Current Assets Holding Period:
 - ✓ To estimate working capital needs based on the average holding period of current assets and relating them to costs based on the company's experience in the previous year.
 - ✓ This method is essentially based on the Operating Cycle Concept.
- ii. Ratio of Sales:

- ✓ To estimate working capital needs as a ratio of sales on the assumption that current assets change with changes in sales.
- iii. Ratio of Fixed Investments:
 - ✓ To estimate Working Capital requirements as a percentage of fixed investments.

Q23. There are a number of factors which have an impact on choosing the method to be used in estimating working capital. Write a short note on such factors.

Or,

Mention the different factors that must be given due weightage in projecting working capital requirements.

Answer:

- ✓ A number of factors impact the choice of method used in estimating Working Capital.
- ✓ Factors such as seasonal fluctuations, accurate sales forecast, investment cost and variability in sales price would generally be considered.
- ✓ The production cycle and credit and collection policies of the firm also have an impact on Working Capital requirements.
- ✓ Therefore, they should be given due weightage in projecting Working Capital requirements.

Q24. Briefly explain the meaning of “operating or working capital cycle” used as a tool for managing working capital. Also explain its calculations.

Answer:

- ✓ The operating cycle analyzes the accounts receivable, inventory and accounts payable cycles in terms of number of days.
- ✓ For example:
 - Accounts receivables are analyzed by the average number of days it takes to collect an account.

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- Inventory is analyzed by the average number of days it takes to turn over the sale of a product (from the point it comes in the store to the point it is converted to cash or an account receivable).
 - Accounts payables are analyzed by the average number of days it takes to pay a supplier invoice.
- ✓ Operating/Working Capital Cycle Definition:
Working Capital cycle indicates the length of time between a company's paying for materials, entering into stock and receiving the cash from sales of finished goods. It can be determined by adding the number of days required for each stage in the cycle.
- ✓ In the form of an equation, the operating cycle process can be expressed as follows:

$$\text{Operating cycle} = R + W + F + D - C$$

Where,

- R = Raw material storage period
- W = Work-in-progress holding period
- F = Finished goods storage period
- D = Receivables (Debtors) collection period
- C = Credit period allowed by suppliers (Creditors)

Q25. Briefly explain why working capital financing is needed.

Answer:

- ✓ The faster a business expands the more cash it will need for working capital and investment.
- ✓ Good management of working capital will generate cash which will help improve profits and reduce risks.
- ✓ Most businesses cannot finance the operating cycle (accounts receivable days + inventory days) with accounts payable financing alone.
- ✓ Consequently, working capital financing is needed.
- ✓ This shortfall is typically covered by the net profits generated internally or by externally borrowed funds or by a combination of the two.

- ✓ It is important to bear in mind that the cost of providing credit to customers and holding stocks can represent a substantial proportion of a firm's total profits.

Q26. What are the different dimensions of the component of working capital?

Answer:

- ✓ Each component of working capital (namely inventory, receivables and payables) has two dimensions:
 - TIME, and
 - MONEY,

And when it comes to managing working capital then time is money.

Q27. Mention the different situations where we can get money to move faster or slower around the operating/working capital cycle. What will happen when we can move money faster around the operating/ working capital cycle?

Answer:

- ✓ The different situations where we can get money to move faster or slower around the operating/working capital cycle are mentioned as below:

If you.....	Then.....
Collect receivables (debtors) faster	You release cash from the cycle
Collect receivables (debtors) slower	Your receivables soak up cash
Get better credit (in terms of duration or amount) from suppliers	You increase your cash resources
Shift inventory (stocks) faster	You free up cash
Move inventory (stocks) slower	You consume more cash

- ✓ If you can get money to move faster around the cycle (e.g. collect monies due from debtors more quickly) or reduce the amount of money tied up (e.g. reduce inventory levels relative to sales), the business will generate more cash or it will need to borrow less money to fund working capital.

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- ✓ Similarly, if you can negotiate improved terms with suppliers e.g. get longer credit or an increased credit limit; you are effectively creating free finance to help fund future sales.

Q28. The determination of operating cycle indicates a number of things with respect to a company. Mention them.

Answer:

- ✓ The determination of operating capital cycle helps in the forecast, control and management of working capital.
- ✓ The length of operating cycle is the indicator of performance of management.
- ✓ The net operating cycle represents the time interval for which the firm has to negotiate for Working Capital from its bankers.
- ✓ It enables to determine accurately the amount of working capital needed for the continuous operation of business activities.
- ✓ The duration of working capital cycle may vary depending on the nature of the business.

Q29. How will you calculate the different components of working capital?

Answer:

The different components of working capital maybe computed as follows:

(1)	Raw Material Storage Period	$= \frac{\text{Average stock of raw material}}{\text{Average Cost of Raw Material Consumption per day}}$
(2)	Work-in-progress holding period	$= \frac{\text{Average Work – in – progress inventory}}{\text{Average Cost of Production per day}}$
(3)	Finished goods storage period	$= \frac{\text{Average stock of finished goods}}{\text{Average cost of goods sold per day}}$
(4)	Receivables (Debtors) collection period	$= \frac{\text{Average Receivables}}{\text{Average Credit Sales per day}}$
(5)	Receivables (Debtors) collection period	$= \frac{\text{Average Payables}}{\text{Average Credit Purchases per day}}$

Q30. Explain the role of various constituents of current assets and current liabilities on operating cycle.

Answer:

- ✓ The various constituents of current assets and current liabilities have a direct bearing on the computation of working capital and the operating cycle.
- ✓ The holding period of various constituents of Current Assets and Current Liabilities cycle may either contract or expand the net operating cycle period.
- ✓ Shorter the operating cycle period, lower will be the requirement of working capital and vice-versa.

Q31. How are the estimates of various components of working capital made?

Answer:

The estimates of various components of working capital may be made as follows:

i. Raw Materials Inventory:

- ✓ The funds to be invested in raw materials inventory may be estimated on the basis of production budget, the estimated cost per unit and average holding period of raw material inventory.
- ✓ It can be calculated using the following formula:

$$= \frac{\text{Estimated Production (units)}}{12 \text{ months}/365 \text{ days} * } \times \text{Estimated Cost per unit} \\ \times \text{Average raw material storage period}$$

ii. Work-in-Progress Inventory:

- ✓ The funds to be invested in work-in-progress can be estimated by the following formula:

$$= \frac{\text{Estimated Production (units)}}{12 \text{ months}/365 \text{ days} * } \times \text{Estimated WIP cost per unit} \times \text{Average WIP holding period}$$

iii. Finished Goods:

- ✓ The funds to be invested in finished goods inventory can be estimated with the help of following formula:

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$$= \frac{\text{Estimated Production (units)}}{12 \text{ months} / 365 \text{ days} *} \times \text{Estimated cost of production per unit} \\ \times \text{Average finished goods storage period}$$

iv. Receivables (Debtors):

- ✓ Funds to be invested in trade receivables (debtors) may be estimated with the help of following formula:

$$= \frac{\text{Estimated credit sales unit}}{12 \text{ months}/365 \text{ days} *} \times \text{Cost of Sales (excluding depreciation) per unit} \\ \times \text{Average receivable collection period}$$

v. Cash and Cash equivalents:

- ✓ Minimum desired Cash and Bank balance to be maintained by the firm has to be added in the current assets for the computation of working capital.

Q32. Write a short note on the estimation of current liabilities.

Answer:

Current liabilities are deducted from the current assets to get working capital. Hence, the amount of working capital is lowered to the extent of current liabilities (other than bank credit) arising in the normal course of business.

The important current liabilities like trade payables, wages and overheads can be estimated as follows:

i. Trade Payables:

- ✓ Trade payable can be estimated on the basis of material purchase budget and the credit purchase. Estimated credit suppliers
- ✓ It is given by,

$$= \frac{\text{Estimated credit purchase}}{12 \text{ months}/365 \text{ days} *} \times \text{Credit period allowed by suppliers}$$

ii. Direct Wages:

- ✓ It is estimated with the help of direct wages budget.
- ✓ It is given by,

$$= \frac{\text{Estimated labour hours} \times \text{wages rate per hour}}{12 \text{ months}/365 \text{ days} *} \\ \times \text{Average time lag in payment of wages}$$

iii. Overheads (other than depreciation and amortization):

✓ It is given by,

$$= \frac{\text{Estimated Overheads}}{12 \text{ months}/360 \text{ days} *} \times \text{Average time lag in payment of wages}$$

NOTE: *Number of days in a year may be taken as 365 or 360 days.

Q33. Illustrate using a table: Estimation of working capital requirements.

Answer:

Estimation of Working Capital Requirements has been illustrated as below:

	Amount	Amount	Amount
I Current Assets:			
Inventories:			
- Raw Materials	---		
- Work-in-process	---		
- Finished goods	---	---	
Receivables:			
- Trade Debtors	---		
- Bills	---	---	
Minimum cash balance		---	
Gross Working Capital		---	---
II Current Liabilities			
Trade Payables		---	
Bills Payables		---	
Wages Payables		---	
Payables for overheads		---	---
III Excess of Current Assets over Current Liabilities [I-II]			---
IV Add: Safety Margin			---
V Net Working Capital [III + IV]			---

Q34. Write a short note on:

Working Capital Requirement Estimation based on Cash Cost.

Answer:

- ✓ There is in practice, another approach which is useful in estimating working capital requirements.
- ✓ This approach is based on the fact that in the case of current assets, like sundry debtors and finished goods, etc., the exact amount of funds blocked is less than the amount of such current assets.
- ✓ For example:
 - If we have sundry debtors worth ₹ 1 lakh and our cost of production is ₹ 75,000, the actual amount of funds blocked in sundry debtors is ₹ 75,000 the cost of sundry debtors, the rest (₹ 25,000) is profit.
 - Again some of the cost items also are non-cash costs; depreciation is a non- cash cost item.
 - Suppose out of ₹ 75,000, ₹ 5,000 is depreciation; then it is obvious that the actual funds blocked in terms of sundry debtors totaling ₹ 1 lakh is only ₹ 70,000. In other words, ₹ 70,000 is the amount of funds required to finance sundry debtors worth ₹ 1 lakh.
- ✓ Similarly, in the case of finished goods which are valued at cost, non-cash costs may be excluded to work out the amount of funds blocked.
- ✓ Many experts, therefore, calculate the working capital requirements by working out the cash costs of finished goods and sundry debtors.
- ✓ Under this approach, the debtors are calculated not as a percentage of sales value but as a percentage of cash costs.
- ✓ Similarly, finished goods are valued according to cash costs.

Q35. Briefly explain the effect of Double shift working on Working Capital Requirements. Give a few examples to demonstrate impact of double shift working on some of the components of working capital.

Answer:

- ✓ The greatest economy in introducing double shift is the greater use of fixed assets.
- ✓ Though production increases but little or very marginal funds may be required for additional assets.
- ✓ But increase in the number of hours of production has an effect on the working capital requirements.
- ✓ Following example is the impact of double shift on some of the components of working capital:-
 - Effect on raw material stock:
 - It is obvious that in double shift working, an increase in stocks will be required as the production rises.
 - However, it is quite possible that the increase may not be proportionate to the rise in production since the minimum level of stocks may not be very much higher.
 - Thus, it is quite likely that the level of stocks may not be required to be doubled as the production goes up two-fold.
 - Effect on materials-in-process:
 - The amount of materials in process will not change due to double shift working since work started in the first shift will be completed in the second.
 - Hence, capital tied up in materials in process will be the same as with single shift working.
 - As such the cost of work-in-process will not change unless the second shift's workers are paid at a higher rate.

Practical Questions – Working Capital

Q1. From the following Information of XYZ Ltd. You are required to calculate:

- (a) Net Operating cycle period
- (b) Number of operating cycle in a year

1) Raw material inventory consumed during the year	6,00,000
2) Average stock of raw material	50,000
3) Work-in-progress inventory	5,00,000
4) Average work-in-progress inventory	30,000
5) Finished goods inventory	8,00,000
6) Average finished goods stock held	40,000
7) Average collection period from debtors	45 days
8) Average credit period availed	30 days
9) No. of days in a year	360 days

Q2. Following information is forecasted by the CS Limited for the year ending 31st March, 2010:

	Balance as at 1 st April,2009	Balance as at 31 st March,2010
	₹	₹
Raw Material	45,000	65,356
Work-in-progress	35,000	51,300
Finished Goods	60,181	70,175
Debtors	1,12,123	1,35,000
Creditors	50,079	70,469
Annual purchases of raw material (all credit)		4,00,000
Annual cost of production		7,50,000
Annual cost of goods sold		9,15,000
Annual Operating cost		9,50,000
Annual Sales (all credit)		11,00,000

You may take one year as equal to 365 days.

You are required to calculate:

- i. Net operating cycle period.
- ii. Number of operating cycles in the year.
- iii. Amount of working capital requirement.

Q3. On 1st January, the Managing Director of Naureen Ltd. wishes to know the amount of working capital that will be required during the year. From the following information prepare the working capital requirements forecast. Production during the previous year was 60,000 units. It is planned that this level of activity would be maintained during the present 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 store for an average of 2 months before issue to production. Each unit is expected to be in process for one month, the raw materials being fed into the pipeline immediately and the labour and overhead costs accruing evenly during the month. Finished goods will stay in the warehouse awaiting dispatch to customers for approximately 3 months. Credit allowed by creditors is 2 months from the date of delivery of raw material. Credit allowed to debtors is 3 months from the date of dispatch. Selling price is ₹5 per unit. There is a regular production and sales cycle. Wages and overheads are paid on the 1st of each month for the previous month. The company normally keeps cash in hand to the extent of ₹20,000

Q4. The following annual figures relate to XYZ Co.,

	₹
Sales (at two months' credit)	36,00,000
Materials consumed (suppliers extend two months' credit)	9,00,000
Wages paid (monthly in arrear)	7,20,000
Manufacturing Expenses outstanding at the end of the year (Cash expenses are paid one month in arrear)	80,000
Total administrative expenses, paid as above	2,40,000
Sales promotion expenses, paid quarterly in advance	1,20,000

Management of Working Capital

The company sells its products on gross profit of 25% counting depreciation as part of the cost of production. It keeps one months' stock each of raw materials and finished goods, and a cash balance of ₹1,00,000.

Assuming 20% safety margin, work out the working capital requirements of the company on cash cost basis. Ignore work-in-process.

- Q5.** Shell cal Limited sells goods at a uniform rate of gross profit of 20% on sales including depreciation as part of cost of production. Its annual figures are as under:

	₹
Sales (At 2 months' credit)	24,00,000
Materials consumed (Suppliers credit 2 months)	6,00,000
Wages paid (Monthly at the beginning of the subsequent month)	4,80,000
Manufacturing expenses (Cash expenses are paid – on month in arrear)	6,00,000
Administration expenses (Cash expenses are paid – on month in arrear)	1,50,000
Sales promotion expenses (paid quarterly in advance)	75,000

The company keeps one month stock each of raw materials and finished goods. A minimum cash balance of ₹80,000 is always kept. The company wants to adopt a 10% safety margin in the maintenance of working capital. The company has no work-in-progress.

Find out the requirements of working capital of the company on cash cost basis. [Home Work]

- Q6.** M.A. Limited is commencing a new project for manufacture of a plastic component. The following cost information has been ascertained for annual production of 12,000 units which is the full capacity:

Cost per unit	₹
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 the selling expenses ₹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 requirements, the following additional information is available:

- | | |
|---|---|
| (a) Stock of materials | 2.25 months' average consumption |
| (b) Work-in-process | Nil |
| (c) Debtors | 1 month's average sales |
| (d) Cash Balance | ₹10,000 |
| (e) Creditors for supply of materials during the year | 1 months' average purchase during the year |
| (f) Creditors for expenses during the year | 1 months' average of all expenses during the year |

Prepare, for the two years:

- A projected statement of Profit/Loss (Ignoring taxation); and
- A projected statement of working capital requirements.

Management of Working Capital

Q7. Musa Limited has budgeted its sales to be ₹7,00,000 per annum. Its costs as a percentage of sales are as follows:

	%
Raw materials	20
Direct labour	35
Overheads	15

Raw materials are carried in stock for two weeks and finished goods are held in stock before sale for three weeks. Production takes four weeks. Musa Limited takes four weeks' credit from suppliers and gives eight weeks' credit to its customers. If both overheads and production are incurred evenly throughout the year, what is Musa Limited's total working capital requirement? [**Home Work**]

Q8. Aneja Limited, a newly formed company, has applied to the commercial bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

Estimated level of activity: 1,04,000 completed units of production plus 4,000 units of work-in-progress. Based on the above activity, estimated cost per unit is:

Raw material	₹80 per unit
Direct wages	₹30 per unit
Overheads (exclusive of depreciation)	₹60 per unit
Total cost	₹170 per unit
Selling price	₹200 per unit

Raw materials in stock: Average 4 weeks consumption, work-in-progress (assume 50% completion stage in respect of conversion cost) (materials issued at the start of the processing).

Finished goods in stock	8,000 units
Credit allowed by suppliers	Average 4 weeks
Credit allowed to debtors/receivables	Average 8 weeks
Lag in payment of wages	Average 1.5 weeks

Cash at banks (for smooth operation) is expected to be ₹25,000.

Assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

You are required to calculate the net working capital required.

Q9. On 1st April, 2010 the Board of Directors of Calci Limited wishes to know the amount of working capital that will be required to meet the programme of activity they have planned for the year. The following information is available:

- (i) Issued and paid-up capital ₹2,00,000.
- (ii) 5% Debentures (secured on assets) – ₹50,000.
- (iii) Fixed assets valued at ₹1,25,000 on 31-12-2009.
- (iv) Production during the previous year was 60,000 units; it is planned that this level of activity should be maintained during the present year.
- (v) The expected ratios of cost to selling price are – raw materials 60%, direct wages 10%, and overheads 20%.
- (vi) Raw materials are expected to remain in stores for an average of two months before these are issued for production.
- (vii) Each unit of production is expected to be in process for one month.
- (viii) Finished goods will stay in warehouse for approximately three months.
- (ix) Creditors allow credit for 2 months from the date of delivery of raw materials.
- (x) Credit allowed to debtors is 3 months from the date of dispatch.
- (xi) Selling price per unit is ₹5.
- (xii) There is a regular production and sales cycle.

You are required to prepare:

- (a) Working capital requirement forecast; and
- (b) An estimated profit and loss account and balance sheet at the end of the year. **[Home Work]**

Management of Working Capital

Q10. A company is considering its working capital investment and financial policies for the next year. Estimated fixed assets and current liabilities for the next year are ₹2.60crores and ₹2.34crores respectively. Estimated Sales and EBIT depend on current assets investment, particularly inventories and book-debts. The financial controller of the company is examining the following alternative Working Capital Policies:

Working Capital Policy	Investment in Current Assets	in Estimated Sales	(₹ Crores) EBIT
Conservative	4.50	12.30	1.23
Moderate	3.90	11.50	1.15
Aggressive	2.60	10.00	1.00

After evaluating the working capital policy, the Financial Controller has advised the adoption of the moderate working capital policy. The company is now examining the use of long-term and short-term borrowings for financing its assets. The company will use ₹2.50crores of the equity funds. The corporate tax rate is 35%. The company is considering the following debt alternatives.

Financing Policy	Short-term Debt	(₹Crores) Long-term Debt
Conservative	0.54	1.12
Moderate	1.00	0.66
Aggressive	1.50	0.16
Interest rate-Average	12%	16%

You are required to calculate the following:

(1) Working Capital Investment for each policy:

- (a) Net Working Capital position
- (b) Rate of Return
- (c) Current ratio

(2) Financing for each policy:

- (a) Net Working Capital position.
- (b) Rate of Return on Shareholders' equity.
- (c) Current ratio. **[Home Work]**

Q11. The following information has been extracted from the records of a Company:

Product Cost Sheet	₹/unit
Raw materials	45
Direct labour	20
Overheads	40
Total	105
Profit	15
Selling price	120

- a) Raw materials are in stock on an average of two months.
- b) The materials are in process on an average for 4 weeks. The degree of completion is 50%.
- c) Finished goods stock on an average is for one month.
- d) Time lag in payment of wages and overheads is 1½ weeks.
- e) Time lag in receipt of proceeds from debtors is 2 months.
- f) Credit allowed by suppliers is one month.
- g) 20% of the output is sold against cash.
- h) The company expects to keep a Cash balance of ₹1, 00,000.
- i) Take 52 weeks per annum.

The Company is poised for a manufacture of 1, 44,000 units in the year.

You are required to prepare a statement showing the Working Capital requirements of the Company. **[Home Work]**

Management of Working Capital

Q12. An engineering company is considering its working capital investment for the year 2003-04.

The estimated fixed assets and current liabilities for the next year are ₹6.63crore and ₹5.967crores respectively. The sales and earnings before interest and taxes (EBIT) depend on investment in its current assets – particularly inventory and receivables. The company is examining the following alternative working capital policies:

Working Capital Policy	Investment in Current Assets	Estimated Sales	EBIT
(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Conservative	11.475	31.365	3.1365
Moderate	9.945	29.325	2.9325
Aggressive	6.63	25.50	2.55

You are required to calculate the following for each policy:

- I. Rate of return on total assets.
- II. Net working capital position.
- III. Current assets to fixed assets ratio.
- IV. Discuss the risk-return trade off of each working capital policy.

[Home Work]

Q13. XYZ Co. Ltd. is a pipe manufacturing company. Its production cycle indicates that materials are introduced in the beginning of the production cycle; wages and overhead accrue evenly throughout the period of the cycle. Wages are paid in the next month following the month of accrual. Work in process includes full units of raw materials used in the beginning of the production process and 50% of wages and overheads are supposed to be conversion costs.

Details of production process and the components of working capital are as follows:

Production of pipes	12, 00,000 units
Duration of the production cycle	One month
Raw materials inventory held	One month consumption
Finished goods inventory held for	Two months

Credit allowed by creditors	One month
Credit given to debtors	Two months
Cost price of raw materials	₹60 per unit
Direct wages	₹10 per unit
Overheads	₹20 per unit
Selling price of finished pipes	₹100 per unit

You are required to calculate the amount of working capital required for the company.

Q14. The following annual figures relate to MNP Limited:

Sales (at three months credit)	₹90,00,000
Materials consumed (suppliers extend one and half month's credit)	₹22,50,000
Wages paid (one month in arrear)	₹18,00,000
Manufacturing expenses outstanding at the end of the year (cash expenses are paid one month in arrear)	₹2,00,000
Total Administrative expenses for the year (cash expenses are paid one month in arrear)	₹6,00,000
Sales Promotion expenses for the year (paid quarterly in advance)	₹12,00,000

The company sells its products on gross-profit of 25% assuming depreciation as a part of cost of production. It keeps two month's stock of finished goods and one month's stock of raw materials as inventory. It keeps cash balance of ₹2,50,000.

Assume a 5% safety margin, work out the working capital requirements of the company on cash cost basis. Ignore work-in-progress.

Management of Working Capital

Q15. A perform a cost sheet of a Company provides the following particulars:

	Amount per unit
	(₹)
Raw materials cost	100
Direct labour cost	37.50
Overheads cost	75
Total cost	212.50
Profit	37.50
Selling Price	250

The Company keeps raw material in stock, on an average for one month; work-in-progress, on an average for one week; and finished goods in stock, on an average for two weeks.

The credit allowed by suppliers is three weeks and company allows four weeks credit to its debtors. The lag in payment of wages is one week and lag in payment of overhead expenses is two weeks.

The Company sells one-fifth of the output against cash and maintains cash-in-hand and at bank put together at ₹37,500.

Required:

Prepare a statement showing estimate of Working Capital needed to finance an activity level of 1,30,000 units of production. Assume that production is carried on evenly throughout the year, and wages and overheads accrue similarly. Work-in-progress stock is 80% complete in all respects.

Q16. A perform cost sheet of a Company provides the following data:

	₹
Raw Material cost per unit	117
Direct Labour cost per unit	49
Factory overheads cost per unit (includes depreciation of ₹18 per unit at budgeted level of activity)	98
Total cost per unit	264
Profit	36
Selling price per unit	300

Following additional information is available:

Average raw material in stock: 4 weeks

Average work-in-process stock: 2 weeks

(% completion with respect to

Materials: 80%

Labour and Overheads: 60%)

Finished goods in stock: 3 weeks

Credit period allowed to debtors: 6 weeks

Credit period availed from suppliers: 8 weeks

Time lag in payment of wages: 1 week

Time lag in payment of overheads: 2 weeks

The company sells one-fifth of the output against cash and maintains cash balance of ₹2, 50,000.

Required:

Prepare a statement showing estimate of working capital needed to finance a budgeted activity level of 78,000 units of production. You may assume that production is carried on evenly throughout the year and wages and overheads accrue similarly.

Management of Working Capital

Q17. MNO Ltd. has furnished the following cost data relating to the year ending of 31st March, 2008.

	₹ (In Lakhs)
Sales	450
Material consumed	150
Direct wages	30
Factory overheads (100% variable)	60
Office and Administrative overheads (100% variable)	60
Selling overheads	50

The company wants to make a forecast of working capital needed for the next year and anticipates that:

- ✓ Sales will go up by 100%,
- ✓ Selling expenses will be ₹150lakhs
- ✓ Stock holdings for the next year will be-Raw material for two and half months, Work-in-progress for one month, Finished goods for half month and Book debts for one and half months,
- ✓ Lags in payment will be of 3 months for creditors, 1 month for wages and half month for Factory, Office and Administrative and Selling overheads.

You are required to prepare statement showing working capital requirements for next year.

Q18. A newly formed company has applied to the Commercial Bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

	Per unit
Elements of cost:	(₹)
Raw material	40
Direct labour	15
Overhead	30
Total cost	85
Profit	15
Sales	100

Other information:

1. Raw material in stock: average 4 weeks consumption,
2. Work – in progress (completion stage, 50 per cent), on an average half a month.
3. Finished goods in stock: on an average, one month.
4. Credit allowed by suppliers is one month.
5. Credit allowed to debtors is two months.
6. Average time lag in payment of wages is 1½ weeks and 4 weeks in overhead expenses.
7. Cash in hand and at bank is desired to be maintained at ₹50,000.
8. All Sales are on credit basis only.

Required:

Prepare statement showing estimate of working capital needed to finance an activity level of 96,000 units of production. Assume that production is carried on evenly throughout the year, and wages and overhead accrue similarly. For the calculation purpose 4 weeks may be taken as equivalent to a month and 52 weeks in a year. **[Home Work]**

Q19. MN Ltd. is commencing a new project for manufacture of electric toys. The following cost Information has been ascertained for annual production of 60,000 units at full capacity:

	Amount per unit (₹)	
Raw materials		20
Direct labour		15
Manufacturing overheads:		
	₹	
Variable	15	
Fixed	10	25
Selling and Distribution overheads:		
	₹	
Variable	3	
Fixed	1	4

Management of Working Capital

Total cost	64
Profit	16
Selling price	80

In the first year of operations expected production and sales are 40,000 units and 35,000 units respectively. To assess the need of working capital, the following additional information is available:

- i. Stock of Raw materials.....3 months consumption.
- ii. Credit allowable for debtors.....1½ months.
- iii. Credit allowable by creditors.....4 months.
- iv. Lag in payment of wages.....1 month.
- v. Lag in payment of overheads.....½ month.
- vi. Cash in hand and Bank is expected to be ₹60,000.
- vii. Provision for contingencies is required @ 10% of working capital requirement including that provision.

You are required to prepare a projected statement of working capital requirement for the first year of operations. Debtors are taken at cost.

Q20. The Trading and Profit and Loss Account of Beta Ltd. for the year ended 31st March, 2011 is given below:

Particulars	Amount (₹)	Particulars	Amount (₹)
To Opening stock:		By Sales (credit)	20,00,000
Raw Materials	1,80,000	By Closing Stock:	
Work-in-progress	60,000	Raw Materials	2,00,000
Finished Goods	2,60,000	Work-in-progress	1,00,000
	5,00,000	Finished Goods	3,00,000
To purchases (credit)	11,00,000		6,00,000
To Wages	3,00,000		
To Production Expenses	2,00,000		
To Gross Profit c/d	5,00,000		
	26,00,000		26,00,000
To Administration Expenses	1,75,000	By Gross Profit b/s	5,00,000
To Selling Expenses	75,000		
To Net Profit	2,50,000		
	5,00,000		5,00,000

The opening and closing balances of debtors were ₹1,50,000 and ₹2,00,000 respectively whereas opening and closing creditors were ₹2,00,000 and ₹2,40,000 respectively.

You are required to ascertain the working capital requirement by operating cycle method.

Q21. STN Ltd. is a readymade garment manufacturing company. Its production cycle indicates that materials are introduced in the beginning of the production phase; wages and overhead accrue evenly throughout the period of cycle. The following figures for the 12 months ending 31st December 2011 are given.

Production of shirts	54,000 units
Selling price per unit	₹200
Duration of the production cycle	1 month
Raw material inventory held	2 month's consumption
Finished goods stock held for	1 month

- Credit allowed to debtors is 1.5 months and credit allowed by creditors is 1 month.
- Wages are paid in the next month following the month of accrual.
- In the work-in-progress 50% of wages and overheads are supposed to be conversion costs.
- The ratios of cost to sales price are-raw materials 60% direct wages 10% and overheads 20%. Cash is to be held to the extent of 40% of current liabilities and safety margin of 15% will be maintained.

Calculate amount of working capital required for the company on a cash cost basis.

Management of Working Capital

Q22. The following information is provided by the DPS Limited for the year ending 31st March, 2013.

Raw material storage period	55 days
Work-in-progress conversion period	18 days
Finished Goods storage period	22 days
Debt collection period	45 days
Creditors' payment period	60 days
Annual Operating cost (Including depreciation of ₹2,10,000) [1 year = 360 days]	₹21,00,000

You are required to calculate:

- 1) Operating Cycle period.
- 2) Number of Operating Cycle in a year.
- 3) Amount of working capital required for the company on a cash cost basis.
- 4) The company is a market leader in its product, there is virtually no competitor in the market. Based on a market research it is planning to discontinue sales on credit and deliver products based on pre-payments. Thereby, it can reduce its working capital requirement substantially.

What would be the reduction in working capital requirement due to such decision?

Unit II: Treasury and Cash Management

Q1. Explain the meaning of the term “Treasury Management”.

Answer:

- ✓ Because of an increase in competitive business environment resulting from the liberalization of the economy, there is a pressure to manage cash scientifically.
- ✓ The demand for funds for expansions coupled with high interest rates, foreign exchange volatility and the growing volume of financial transactions have necessitated efficient management of money.
- ✓ Treasury management is defined as – “the corporate handling of all financial matters, the generation of external and internal funds for business, the management of currencies and cash flows and the complex, strategies, policies and procedures of corporate finance.”
- ✓ The treasury management mainly deals with:-
 - Working capital management; and
 - Financial risk management (It includes forex and interest rate management).

Q2. Mention the key goals of treasury management.

Answer:

The key goals of treasury management are:-

- ✓ Maximize the return on the available cash;
- ✓ Minimize interest cost on borrowings;
- ✓ Mobilize as much cash as possible for corporate ventures (in case of need); and
- ✓ Effective dealing in forex, money and commodity markets to reduce risks arising because of fluctuating exchange rates, interest rates and prices which can affect the profitability of the organization.

Q3. Briefly explain the functions of treasury department.

Answer:

The functions of treasury management are explained as below:

1. Cash Management:
 - ✓ It involves efficient cash collection process and managing payment of cash both inside the organization and to third parties.
 - ✓ There may be complete centralization within a group treasury or the treasury may simply advise subsidiaries and divisions on policy matter viz., collection/payment periods, discounts, etc.
 - ✓ Treasury will also manage surplus funds in an investment portfolio.
2. Currency Management:
 - ✓ The treasury department manages the foreign currency risk exposure of the company.
 - ✓ In a large multinational company (MNC) the first step will usually be to set off intra-group indebtedness.
 - ✓ The use of matching receipts and payments in the same currency will save transaction costs.
 - ✓ Treasury might advise on the currency to be used when invoicing overseas sales.
 - ✓ If risks are to be minimized then forward contracts can be used either to buy or sell currency forward.
3. Funding Management:
 - ✓ Treasury department is responsible for planning and sourcing the company's short, medium and long-term cash needs.
 - ✓ Treasury department will also participate in the decision on capital structure and forecast future interest and foreign currency rates.
4. Banking:
 - ✓ Treasury department carry out negotiations with bankers and act as the initial point of contact with them, and so it is vital to maintain a good relationship with its bankers
 - ✓ Short-term finance can come in the form of bank loans or through the sale of commercial paper in the money market.

5. Corporate Finance:

- ✓ Treasury department is involved with both acquisition and divestment activities within the group.
- ✓ In addition, it will often have responsibility for investor relations.
- ✓ The latter activity has assumed increased importance in markets where share-price performance is regarded as crucial and may affect the company's ability to undertake acquisition activity or, if the price falls drastically, render it vulnerable to a hostile bid.

Q4. What is management of cash primarily concerned with?

Answer:

Management of cash is an important function of the finance manager. It is primarily concerned with the managing of:-

- (i) Cash flows into and out of the firm;
- (ii) Cash flows within the firm; and
- (iii) Cash balances held by the firm at a point of time by financing deficit or investing surplus cash.

Q5. What are the main objectives of cash management for a business?

Answer:

The main objectives of cash management for a business are:-

- ✓ Provide adequate cash to each of its units;
- ✓ No funds are blocked in idle cash; and
- ✓ The surplus cash (if any) should be invested in order to maximize returns for the business.

NOTE: A cash management scheme is a delicate balance between the twin objectives of liquidity and costs.

Q6. In determining the amount of cash or liquidity, mention the basic considerations as outlined by Lord Keynes.

Or,

In determining the amount of cash or liquidity there are certain basic considerations. Mention them.

Answer:

The following are three basic considerations in determining the amount of cash or liquidity as have been outlined by Lord Keynes:

- ✓ Transaction need:
 - Cash facilitates the meeting of the day-to-day expenses and other debt payments.
 - Normally, inflows of cash from operations should be sufficient for this purpose.
 - But sometimes this inflow may be temporarily blocked.
 - In such cases, it is only the reserve cash balance that can enable the firm to make its payments in time.
- ✓ Speculative needs:
 - Cash may be held in order to take advantage of profitable opportunities that may present themselves and which may be lost for want of ready cash/settlement.
- ✓ Precautionary needs:
 - Cash may be held to act as for providing safety against unexpected events.
 - Safety as is explained by the saying that “A man has only three friends an old wife, an old dog and money at bank.”

Q7. Write a short note on cash planning. Also explain why cash planning is important for an organization.

Answer:

- ✓ Cash Planning is a technique to plan and control the use of cash.
- ✓ The very first step is to estimate the requirement of cash.
- ✓ For this purpose, cash flow statements and cash budget are also required to be prepared.
- ✓ Thus, cash planning protects the financial conditions of the firm by developing a projected cash statement from a forecast of expected cash inflows and outflows for a given period.
- ✓ This may be done periodically either on daily, weekly or monthly basis.
- ✓ The period and frequency of cash planning generally depends upon the size of the firm and philosophy of management.
- ✓ As firms grows and business operations become complex, cash planning becomes inevitable for continuing success. Hence, cash planning is crucial for an organization.

Q8. Write a short note on Cash Budget.

Answer:

- ✓ Cash Budget is the most significant device to plan for and control cash receipts and payments.
- ✓ This represents cash requirements of business during the budget period.
- ✓ On the basis of cash budget, the firm can decide to invest surplus cash in marketable securities and earn profits.

Q9. Mention the different purposes of cash budgets.

Answer:

The various purposes of cash budgets are mentioned as below:-

- ✓ To co-ordinate the timings of cash needs. It identifies the period(s) when there might either be a shortage of cash or an abnormally large cash requirement;
- ✓ It also helps to pinpoint period(s) when there is likely to be excess cash;
- ✓ It enables firm which has sufficient cash to take advantage like cash discounts on its accounts payable; and
- ✓ Lastly it helps to plan/arrange adequately needed funds (avoiding excess/shortage of cash) on favorable terms.

Q10. Main components of cash budget.

Or,

Mention the steps involved in preparation of cash budget.

Answer:

Preparation of cash budget involves the following steps:

- a) Selection of the period of time to be covered by the budget. It is also defining the planning horizon.
- b) Selection of factors that have a bearing on cash flows. The factors that generate cash flows are generally divided into following two categories:-
 - i. Operating (cash flows generated by operations of the firm); and
 - ii. Financial (cash flows generated by financial activities of the firm).

Q11. Mention the different methods which can be used to prepare a cash budget.

Answer:

A cash budget can be prepared in the following ways:

1. Receipts and Payments Method:

- ✓ In this method all the expected receipts and payments for budget period are considered.
- ✓ All the cash inflow and outflow of all functional budgets including capital expenditure budgets are considered.
- ✓ Accruals and adjustments in accounts will not affect the cash flow budget.
- ✓ Anticipated cash inflow is added to the opening balance of cash and all cash payments are deducted from this to arrive at the closing balance of cash.
- ✓ This method is commonly used in business organizations.

2. Adjusted Income Method:

- ✓ In this method the annual cash flows are calculated by adjusting the sales revenues and cost figures for delays in receipts and payments (change in debtors and creditors) and eliminating non-cash items such as depreciation.

3. Adjusted Balance Sheet Method:

- ✓ In this method, the budgeted balance sheet is predicted by expressing each type of asset and short-term liabilities as percentage of the expected sales.
- ✓ The profit is also calculated as a percentage of sales, so that the increase in owner's equity can be forecasted.
- ✓ Known adjustments, may be made to long-term liabilities and the balance sheet will then show if additional finance is needed.

NOTE:

- ✓ It is important to note that the capital budget will also be considered in the preparation of cash flow budget because the annual budget may disclose a need for new capital investments and
- ✓ Also, the costs and revenues of any new projects coming on stream will have to be incorporated in the short-term budgets.
- ✓ The Cash Budget can be prepared for short period or for long period.

Q12. Write a short note on: Cash budget for short period.

Or,

What are the estimates that would be required to be made in the preparation of cash budget for short period (that is, month by month)?

Answer:

Preparation of cash budget month by month would require the following estimates:

- a) As regards receipts:
 - 1. Receipts from debtors;
 - 2. Cash Sales; and
 - 3. Any other source of receipts of cash (say, dividend from a subsidiary company)
- b) As regards payments:
 - 1. Payments to be made for purchases;
 - 2. Payments to be made for expenses;
 - 3. Payments that are made periodically but not every month;
 - (i) Debenture interest;
 - (ii) Income tax paid in advance;
 - (iii) Sales tax etc.
 - 4. Special payments to be made in a particular month, for example, dividends to shareholders, redemption of debentures, repayments of loan, payment of assets acquired, etc.

Q13. Provide format of cash budget.

Answer:

The format of cash budget has been given below:

_____ Co. Ltd.

Cash Budget

Period _____

	Month 1	Month 2	Month 3	Month 12
Receipts:					
1. Opening Balance					
2. Collection from debtors					
3. Cash Sales					
4. Loans from Banks					
5. Share Capital					
6. Miscellaneous receipts					
7. Other Items					
Total					
Payments:					
1. Payment to creditors					
2. Wages					
3. Overheads					
(a)					
(b)					
(c)					
4. Interest					
5. Dividend					
6. Corporate Tax					
7. Capital Expenditure					
8. Other items					
Total					
Closing Balance					
[Surplus(+) Shortfall (-)]					

Q14. Briefly mention the procedure that may be adopted in preparing long-range cash forecast.

Answer:

Long-range cash forecast often resemble the projected sources and application of funds statement. The following procedure may be adopted to prepare long-range cash forecasts:

- (i) Take the cash at bank and in the beginning of the year:
- (ii) Add:
 - a) Trading profit (before tax) expected to be earned;
 - b) Depreciation and other development expenses incurred to be written off;
 - c) Sale proceeds of assets’;
 - d) Proceeds of fresh issue of shares or debentures; and
 - e) Reduction in working capital that is current assets (except cash) less current liabilities.
- (iii) Deduct:
 - a) Dividends to be paid.
 - b) Cost of assets to be purchased.
 - c) Taxes to be paid.
 - d) Debentures or shares to be redeemed.
 - e) Increase in working capital.

Q15. Write a short note on managing Cash collection and disbursements

Or,

How can we improve cash management efficiency?

Answer:

- ✓ Having prepared the cash budget, the finance manager should ensure that there is not a significant deviation between projected cash flows and actual cash flows.
- ✓ To achieve this, the cash management efficiency has to be improved through a proper control of cash collection and disbursement.
- ✓ The twin objectives in managing the cash flows should be:-
 - Accelerate cash collections as much as possible; and

- Decelerate or delay cash disbursements.

Q16. How can a firm conserve cash and reduce its cash requirements?

Answer:

A firm can conserve cash and reduce its cash requirements if it can

- ✓ Speed up its cash collections by issuing invoices quickly or
- ✓ By reducing the time lag between which customer pays bill and the cheque is collected and funds become available for the firm's use.

Q17. In order to speed up cash collection and reduce float time, a firm can use decentralized collection system. What are the components of decentralized cash collection? Briefly explain them.

Or,

Mention the different methods we can use to accelerate cash flows.

Answer:

To speed up the cash collection and reduce float time a firm can use decentralized collection system. The following are the main components of decentralized collection system:

i. Concentration Banking:

- ✓ In concentration banking the company establishes a number of strategic collection centers in different regions instead of a single collection center at the head office.
- ✓ This system reduces the period between the time a customer mails in his remittances and the time when they become spendable funds with the company.
- ✓ Payments received by the different collection centers are deposited with their respective local banks which in turn transfer all surplus funds to the concentration bank of head office.
- ✓ The concentration bank with which the company has its major bank account is generally located at the headquarters.
- ✓ Concentration banking is one important and popular way of reducing the size of the float.

ii. Lock Box System:

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- ✓ Another means to accelerate the flow of funds is a lock box system.
- ✓ The purpose of lock box system is to eliminate the time between the receipts of remittances by the company and deposit in the bank.
- ✓ A lock box arrangement usually is on regional basis which a company chooses according to its billing patterns.
- ✓ Under this arrangement, the company rents the local post-office box and authorizes its bank at each of the locations to pick up remittances in the boxes.
- ✓ Customers are billed with instructions to mail their remittances to the lock boxes.
- ✓ The bank picks up the mail several times a day and deposits the cheques in the company's account.
- ✓ The cheques may be micro-filmed for record purposes and cleared for collection.
- ✓ The company receives a deposit slip and lists all payments together with any other material in the envelope.
- ✓ This procedure frees the company from handling and depositing the cheques.
- ✓ The main advantage of lock box system is that cheques are deposited with the banks sooner and become collected funds sooner than if they were processed by the company prior to deposit.
- ✓ The main drawback of lock box system is the cost of its operation.
- ✓ The bank provides a number of services in addition to usual clearing of cheques and requires compensation for them.
- ✓ Since the cost is almost directly proportional to the number of cheques deposited.
- ✓ Lock box arrangements are usually not profitable if the average remittance is small.
- ✓ The appropriate rule for deciding whether or not to use a lock box system or for that matter, concentration banking, is simply to

compare the added cost of the most efficient system with the marginal income that can be generated from the released funds.

- ✓ If costs are less than income, the system is profitable, if the system is not profitable, it is not worth undertaking.

Q18. What are the different Kinds of Float with reference to management of Cash?

Answer:

The term float is used to refer to the periods that affect cash as it moves through the different stages of the collection process. Four kinds of float with reference to management of cash are:

1. Billing float:
 - ✓ An invoice is the formal document that a seller prepares and sends to the purchaser as the payment request for goods sold or services provided.
 - ✓ The time between the sale and the mailing of the invoice is the billing float.
2. Mail float:
 - ✓ This is the time when a cheque is being processed by post office, messenger service or other means of delivery.
3. Cheque processing float:
 - ✓ This is the time required for the seller to sort, record and deposit the cheque after it has been received by the company.
4. Banking processing float:
 - ✓ This is the time from the deposit of the cheque to the crediting of funds in the sellers account.

Q19. Write a short note on controlling payments.

Answer:

- ✓ An effective control over payments can also cause faster turnover of cash.
- ✓ This is possible only by making payments on the due date, making excessive use of draft (bill of exchange) instead of cheques.
- ✓ Availability of cash can be maximized by playing the float.
- ✓ In this, a firm estimates accurately the time when the cheques issued will be presented for encashment and thus utilizes the float period to its advantage by issuing more cheques but having in the bank account only so much cash balance as will be sufficient to honor those cheques which are actually expected to be presented on a particular date.
- ✓ Also company may make payment to its outstation suppliers by a cheque and send it through mail.
- ✓ The delay in transit and collection of the cheque, will be used to increase the float.

Q20. Write a short note on optimum cash balance. Also mention how in recent times optimum cash balance can be determined by an organization.

Answer:

- ✓ A firm should maintain optimum cash balance to cater to the day-to-day operations.
- ✓ It may also carry additional cash as a buffer or safety stock.
- ✓ The amount of cash balance will depend on the risk-return trade off.
- ✓ The firm should maintain an optimum level i.e. just enough, i.e. neither too much nor too little cash balance.
- ✓ In recent years several types of mathematical models have been developed which helps to determine the optimum cash balance to be carried by a business organization.
- ✓ The purpose of all these models is to ensure that cash does not remain idle unnecessarily and at the same time the firm is not confronted with a situation of cash shortage.

- ✓ All these models can be put in two categories:- Inventory type models; and Stochastic models.

Q21. What are Inventory type models, Economic order quantity model and Stochastic model used for?

Answer:

- ✓ Inventory type models have been constructed to aid the finance manager to determine optimum cash balance of his firm.
- ✓ William J. Baumol's economic order quantity model applies equally to cash management problems under conditions of **certainty** or where the cash flows are **predictable**.
- ✓ However, in a situation where the EOQ Model is not applicable, stochastic model of cash management helps in determining the optimum level of cash balance.
- ✓ It happens when the demand for cash is **stochastic** and not known in advance.

Q22. Explain in short: William J. Baumol's Economic Order Quantity Model, (1952).

Answer:

- ✓ According to this model, optimum cash level is that level of cash where the carrying costs and transactions costs are the minimum.
- ✓ The carrying costs refer to the cost of holding cash, namely, the interest foregone on marketable securities.
- ✓ The transaction costs refer to the cost involved in getting the marketable securities converted into cash.
- ✓ This happens when the firm falls short of cash and has to sell the securities resulting in clerical, brokerage, registration and other costs.
- ✓ The optimum cash balance according to this model will be that point where these two costs are minimum.

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- ✓ The formula for determining optimum cash balance is:

$$C = \sqrt{\frac{2U \times P}{S}}$$

Where,

C = Optimum cash balance

U = Annual (or monthly) cash disbursement

P = Fixed cost per transaction

S = Opportunity cost of one rupee p.a. (or p.m.)

Q23. Mention the assumption on which William J. Baumol's Economic Order Quantity Model, (1952) is based.

Answer:

The model is based on the following assumptions:

- (i) Cash needs of the firm are known with certainty.
- (ii) The cash is used uniformly over a period of time and it is also known with certainty.
- (iii) The holding cost is known and it is constant.
- (iv) The transaction cost also remains constant.

Q24. Write a short note on Miller-Orr Cash Management Model (1966).

Answer:

- ✓ According to this model the net cash flow is completely stochastic (not known in advance).
- ✓ When changes in cash balance occur randomly the application of control theory serves a useful purpose.
- ✓ The Miller-Orr model is one of such control limit models.
- ✓ This model is designed to determine the time and size of transfers between an investment account and cash account.
- ✓ In this model control limits are set for cash balances.

- ✓ These limits may consist of h as upper limit, z as the return point; and zero as the lower limit.
 - When the cash balance reaches the upper limit, the transfer of cash equal to $h - z$ is invested in marketable securities account.
 - When it touches the lower limit, a transfer from marketable securities account to cash account is made.
 - During the period when cash balance stays between (h, z) and $(z, 0)$ i.e. high and low limits no transactions between cash and marketable securities account is made.
- ✓ The high and low limits of cash balance are set up on the basis of fixed cost associated with the securities transactions, the opportunity cost of holding cash and the degree of likely fluctuations in cash balances.
- ✓ These limits satisfy the demands for cash at the lowest possible total costs.

Note:

- ✓ The MO Model is more realistic since it allows variations in cash balance within lower and upper limits.
- ✓ The finance manager can set limits according to the firm's liquidity requirements i.e., maintaining minimum and maximum cash balance.

Q25. Write a short note on "Developments in cash management."**Answer:**

- ✓ It is important to understand the latest developments in the field of cash management, since it has a great impact on how we manage our cash.
- ✓ Both technological advancement and desire to reduce cost of operations has led to some innovative techniques in managing cash.
- ✓ Some of them are:-
 - (i) Electronic fund transfer
 - (ii) Zero Balance Account
 - (iii) Money Market Operations

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- (iv) Petty Cash Imprest System
- (v) Management of Temporary Cash Surplus
- (vi) Electronic Cash Management System

Q26. Write a short note on Electronic Fund Transfer as a part of development in cash management.

Answer:

- ✓ With the developments which took place in the Information technology, the present banking system is switching over to the computerization of banks branches to offer efficient banking services and cash management services to their customers.
- ✓ The network will be linked to the different branches, banks.
- ✓ This will help the customers in the following ways:
 - Instant updating of accounts
 - The quick transfer of funds
 - Instant information about foreign exchange rates

Q27. Write a short note on: "Zero Balance Account."

Answer:

- ✓ For efficient cash management some firms employ an extensive policy of substituting marketable securities for cash by the use of zero balance accounts.
- ✓ Every day the firm totals the cheques presented for payment against the account.
- ✓ The firm transfers the balance amount of cash in the account if any, for buying marketable securities.
- ✓ In case of shortage of cash the firm sells the marketable securities.

Q28. Write a short note on: “Money Market Operations”

Or,

How can “treasury function” of larger companies deal with surplus funds?

Answer:

- ✓ One of the tasks of ‘treasury function’ of larger companies is the investment of surplus funds in the money market.
- ✓ The chief characteristic of money market banking is one of size.
- ✓ Banks obtain funds by competing in the money market for the deposits by the companies, public authorities, High Net worth Investors (HNI), and other banks.
- ✓ Deposits are made for specific periods ranging from overnight to one year; highly competitive rates which reflect supply and demand on a daily, even hourly basis are quoted.
- ✓ Consequently, the rates can fluctuate quite dramatically, especially for the shorter-term deposits.
- ✓ Surplus funds can thus be invested in money market easily.

Q29. Write a short note on “Petty Cash Imprest System.”

Answer:

- ✓ For better control on cash, generally the companies use petty cash imprest system wherein the day-to-day petty expenses are estimated taking into account past experience and future needs and generally a week’s requirement of cash will be kept separate for making petty expenses.
- ✓ Again, the next week will commence with the pre- determined balance.
- ✓ This will reduce the strain of the management in managing petty cash expenses and help in the managing cash efficiently.

Q30. How can temporary cash surpluses be profitably invested?

Answer:

Temporary cash surpluses can be profitably invested in the following:

- ✓ Short-term deposits in Banks and financial institutions.
- ✓ Short-term debt market instruments.
- ✓ Long-term debt instruments
- ✓ Shares of Blue chip listed companies.

Q31. Write a short note on: "Electronic Cash-management system".

Answer:

- ✓ Most of the cash management systems now-a-days are electronically based, since 'speed' is the essence of any cash management system.
- ✓ Various elements in the process of cash management are linked through a satellite.
- ✓ Various places that are interlinked may be the place where the instrument is collected, the place where cash is to be transferred in company's account, the place where the payment is to be transferred etc.
- ✓ Certain networked cash management system may provide a very limited access to third parties like parties having very regular dealings of receipts and payments with the company etc.
- ✓ A finance company accepting deposits from public through sub-brokers may give a limited access to sub-brokers to verify the collections made through him for determination of his commission among other things.

Q32. Mention the benefits derived from Electronic-scientific cash-management.

Answer:

Electronic-scientific cash management results in:

- ✓ Significant saving in time
- ✓ Decrease in interest costs
- ✓ Less paper work

- ✓ Greater accounting accuracy
- ✓ More control over time and funds
- ✓ Supports electronic payments.
- ✓ Faster transfer of funds from one location to another, where required.
- ✓ Speedy conversion of various instruments into cash.
- ✓ Making available funds wherever required, whenever required.
- ✓ Reduction in the amount of 'idle float' to the maximum possible extent.
- ✓ Ensures no idle funds are placed at any place in the organization.
- ✓ It makes inter-bank balancing of funds much easier.
- ✓ It is a true form of centralized 'Cash Management'.
- ✓ Produces faster electronic reconciliation.
- ✓ Allows for detection of book-keeping errors.
- ✓ Reduces the number of cheques issued.
- ✓ Earns interest income or reduce interest expense.

Q33. Briefly explain how the evolution of banking system took place in India, which ultimately lead to virtual banking.

Answer:

- ✓ The practice of banking has undergone a significant change in the nineties.
- ✓ While banks are striving to strengthen customer base and relationship and move towards relationship banking, customers are increasingly moving away from the confines of traditional branch banking and are seeking the convenience of remote electronic banking services.
- ✓ And even within the broad spectrum of electronic banking the virtual banking has gained prominence.
- ✓ Broadly virtual banking denotes the provision of banking and related services through extensive use of information technology without direct recourse to the bank by the customer.
- ✓ The origin of virtual banking in the developed countries can be traced back to the seventies with the installation of Automated Teller Machines (ATMs).

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- ✓ Subsequently, driven by the competitive market environment as well as various technological and customer pressures, other types of virtual banking services have grown in prominence throughout the world.

Q34. Mention the different steps undertaken by Reserve Bank of India to facilitate active involvement of commercial banks in sophisticated cash management system.

Or,

Briefly mention the measures taken by Reserve Bank of India to strengthen the payment mechanism in the country.

Answer:

- ✓ The Reserve Bank of India has been taking a number of initiatives, which will facilitate the active involvement of commercial banks in the sophisticated cash management system.
- ✓ One of the pre-requisites to ensure faster and reliable mobility of funds in a country is to have an efficient payment system.
- ✓ Considering the importance of speed in payment system to the economy, the RBI has taken numerous measures since mid- Eighties to strengthen the payments mechanism in the country.
- ✓ Some of the significant developments are as follows:
 - Introduction of computerized settlement of clearing transactions,
 - Use of Magnetic Ink Character Recognition (MICR) technology,
 - Provision of inter-city clearing facilities and high value clearing facilities,
 - Electronic Clearing Service Scheme (ECSS),
 - Electronic Funds Transfer (EFT) scheme,
 - Delivery vs. Payment (DVP) for Government securities transactions,
 - Setting up of Indian Financial Network (INFINET) are some of the significant developments.
 - Introduction of:
 - Centralized Funds Management System (CFMS), Securities Services System (SSS),

- Real Time Gross Settlement System (RTGS) and
- Structured Financial Messaging System (SFMS)
- ✓ The current vision envisaged for the payment systems reforms is one, which contemplates linking up of at least all important bank branches with the domestic payment systems network thereby facilitating cross border connectivity.
- ✓ With the help of the systems already put in place in India and which are coming into being, both banks and corporates can exercise effective control over the cash management.

Q35. Mention the different advantages of Virtual Banking Services.

Answer:

The advantages of virtual banking services are as follows:

- ✓ Lower cost of handling a transaction.
- ✓ The increased speed of response to customer requirements.
- ✓ The lower cost of operating branch network along with reduced staff costs leads to cost efficiency.
- ✓ Virtual banking allows the possibility of improved and a range of services being made available to the customer rapidly, accurately and at his convenience.
- ✓ The popularity which virtual banking services have won among customers is due to the speed, convenience and round the clock access they offer.

Q36. Write a short note on management of marketable securities. Also explain the principles which guide the selection of securities.

Answer:

- ✓ Management of marketable securities is an integral part of investment of cash as this may serve both the purposes of liquidity and cash, provided choice of investment is made correctly.
- ✓ As the working capital needs are fluctuating, it is possible to park excess funds in some short term securities, which can be liquidated when need for cash is felt.
- ✓ The selection of securities should be guided by three principles.
 - Safety: Return and risks go hand in hand. As the objective in this investment is ensuring liquidity, minimum risk is the criterion of selection.
 - Maturity: Matching of maturity and forecasted cash needs is essential. Prices of long term securities fluctuate more with changes in interest rates and are therefore, more risky. ☒
 - Marketability: It refers to the convenience, speed and cost at which a security can be converted into cash. If the security can be sold quickly without loss of time and price it is highly liquid or marketable.

Q37. Mention the different choices of marketable securities in the market.

Answer:

- ✓ The choice of marketable securities is mainly limited to Government treasury bills, Deposits with banks and Inter-corporate deposits.
- ✓ Units of Unit Trust of India and commercial papers of corporates are other attractive means of parking surplus funds for companies along with deposits with sister concerns or associate companies.
- ✓ Besides this Money Market Mutual Funds (MMMFs) have also emerged as one of the avenues of short-term investment.

Practical Questions – Cash Management

Q1. A firm maintains a separate account for cash disbursement. Total disbursements are ₹2,62,500 per month. Administrative and transaction cost of transferring cash to disbursement account is ₹25 per transfer. Marketable securities yield is 7.5% per annum. Determine the optimum cash balance according to William J Baumol model.

Q2. Prepare monthly cash budget for six months beginning from April 2014 on the basis of the following information:-

(i) Minimum monthly sales are as follows

Jan	1,00,000	Jun	80,000
Feb	1,20,000	Jul	1,00,000
Mar	1,40,000	Aug	80,000
Apr	80,000	Sep	60,000
May	60,000	Oct	1,00,000

(ii) Wages and salaries are estimated to be payable as follows:-

Apr	9,000	Jul	10,000
May	8,000	Aug	9,000
Jun	10,000	Sep	9,000

(iii) Of the sales, 80% is on credit and 20% for cash. 75% of the credit sales are collected within one month and the balance in two months. There are no bad debt losses.

(iv) Purchases amount to 80% of sales and are made and paid for in the month preceding the sales.

(v) The firm has 10% debentures of ₹1,20,000. Interest on these has to be paid quarterly in January, April and so on.

(vi) The firm is to make an advance payment of tax of ₹5,000 in July, 2014.

(vii) The firm had a cash balance of ₹20,000 on April 1, 2014, which is the minimum desired level of cash balance. Any cash surplus/deficit above/below this level is made up by temporary investments/liquidation

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of temporary investments or temporary borrowings at the end of each month (interest on these to be ignored).

Q3. From the following information relating to a departmental store, you are required to prepare for the three months ending 31st March, 2014:-

- (a) Month-wise cash budget on receipts and payments basis; and
- (b) Statement of Sources and uses of funds for the three months period.

It is anticipated that the working capital at 1st January, 2014 will be as follows:-

	₹ in 000's		
Cash in hand and at bank	545		
Short Term Investments	300		
Debtors	2,570		
Stock	1,300		
Trade Creditors	2,110		
Other Creditors	200		
Dividends Payable	485		
Tax Due	320		
Plant	800		
Budgeted Profit Statement	₹ in 000's		
	Jan	Feb	Mar
Sales	2,100	1,800	1,700
Cost of Sales	1,635	1,405	1,330
Gross Profit	465	395	370
Administrative, Selling and Distribution	315	270	255
Net Profit Before Tax	150	125	115
Budgeted Balances at the end of each months	₹ in 000's		
	Jan	Feb	Mar
Short term investments	700	-	200
Debtors	2,650	2,500	2,350

Stock	1,200	1,100	1,000
Trade Creditors	2,000	1,950	1,900
Other Creditors	200	200	200
Dividends Payable	485	-	-
Tax Due	320	320	320
Plant (Depreciation ignored)	800	1,600	1,550

Depreciation amount to ₹60,000 is included in the budgeted expenditure for each month.

- Q4.** The following information relates to Zeta Limited, a publishing company:
 The selling price of a book is ₹15, and sales are made on credit through a book club and invoiced on the last day of the month.
 Variable costs of production per book are materials (₹5) labour (₹4), and overhead (₹2) The sales manager has forecasted the following volumes:

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
No. of Books	1000	1000	1000	1250	1500	2000	1900	2200	2200	2300

Customers are expected to pay as follows:

One month after the sale 40%
 Two months after the sale 60%

The company produces the books two months before they are sold and the creditors for materials are paid two months after production.

Variable overheads are paid in the month following production and are expected to increase by 25% in April; 75% of wages are paid in the month of production and 25% in the following month. A wage increase of 12.5% will take place on 1st March.

The company is going through a restructuring and will sell one of its freehold properties in May for ₹ 25,000, but it is also planning to buy a new printing press in May for ₹10,000. Depreciation is currently ₹1,000 per month, and will rise to ₹1,500 after the purchase of the new machine.

The company's corporation tax (of ₹10,000) is due for payment in March.

The company presently has a cash balance at bank on 31 December 2013, of ₹1,500. You are required to prepare a cash budget for the six months from January to June.

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Q5. You is given below the Profit & Loss Accounts for two years for a company:

	Year 1	Year 2		Year 1	Year 2
To Opening Stock	80,00,000	1,00,00,000	By Sales	8,00,00,000	1,00,00,000
To Raw Materials	3,00,00,000	4,00,00,000	By Closing Stocks	1,00,00,000	1,50,00,000
To Stores	1,00,00,000	1,20,00,000	By Misc. Income	10,00,000	10,00,000
To Manufacturing Expenses	1,00,00,000	1,60,00,000			
To Other Expenses	1,00,00,000	1,00,00,000			
To Depreciation	1,00,00,000	1,00,00,000			
To Net Profit	1,30,00,000	1,80,00,000			
	9,10,00,000	11,60,00,000		9,10,00,000	11,60,00,000

Sales are expected to be ₹12, 00, 00,000 in year 3.

As a result, other expenses will increase by ₹50, 00,000 besides other charges. Only raw materials are in stock. Assume sales and purchases are in cash terms and the closing stock is expected to go up by the same amount as between year 1 and 2. You may assume that no dividend is being paid. The Company can use 75% of the cash generated to service a loan. How much cash from operations will be available in year 3 for the purpose? Ignore income tax.

Q6. The following information is available in respect of Sai Trading Company:

- (i) On an average, debtors are collected after 45 days; inventories have an average holding
- (ii) Period of 75 days and creditor's payment period on an average is 30 days.
- (iii) The firm spends a total of ₹120lakhs annually at a constant rate.
- (iv) It can earn 10 per cent on investments.

From the above information, you are required to calculate:

- (a) The cash cycle and cash turnover,
- (b) Minimum amounts of cash to be maintained to meet payments as they become due,
- (c) Savings by reducing the average inventory holding period by 30 days. **[Home Work]**

- Q7.** A new manufacturing company is to be incorporated from January 1, 2015. Its authorized capital will be ₹2crores divided into 20lakh equity shares of ₹10 each. It intends to raise capital by issuing equity shares of ₹1crore (fully paid) on 1st January. Besides, a loan of ₹13lakhs @ 12% per annum will be obtained from a financial institution on 1st January and further borrowings will be made at same rate of interest on the first day of the month in which borrowing is required. All borrowings will be repaid along with interest on the expiry of one year. The company will make payment for the following assets in January.

	₹ (in lakhs)
Plant and Machinery	20
Land and Building	40
Furniture	10
Motor Vehicles	10
Stock of Raw Materials	10

The following further details are available:

1. Projected Sales (January-June):

	₹ (in lakhs)		₹ (in lakhs)
January	30	April	40
February	35	May	40
March	35	June	45

2. Gross profit margin will be 25% on sales.
3. The company will make credit sales only and these will be collected in the second month following sales.
4. Creditors will be paid in the first month following credit purchases. There will be credit purchases only.
5. The company will keep minimum stock of raw materials of ₹10lakhs.
6. Depreciation will be charged @ 10% per annum on cost on all fixed assets.
7. Payment of preliminary expenses of ₹1lakh will be made in January.
8. Wages and salaries will be ₹2lakhs each month and will be paid on the first day of the next month.

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9. Administrative expenses of ₹1lakh per month will be paid in the month of their incurrence.

Assume no minimum required cash balance.

You are required to prepare the monthly cash budget (January-June), the projected Income Statement for the 6 months period and the projected Balance Sheet as on 30th June, 2015. **[Home Work]**

Unit III: Management of Inventory

Q1. Write a short note on Inventory management. Also mention the problems covered by inventory management.

Answer:

- ✓ Inventories constitute a major element of working capital.
- ✓ It is, therefore, important that investment in inventory is property controlled.
- ✓ The objectives of inventory management are, to a great extent, similar to the objectives of cash management.
- ✓ Inventory management covers a large number of problems:
 - Including fixation of minimum and maximum levels,
 - Determining the size of inventory to be carried,
 - Deciding about the issues, receipts and inspection procedures,
 - Determining the economic order quantity, proper storage facilities,
 - Keeping check over obsolescence and
 - Ensuring control over movement of inventories.

Practical Questions – Inventory Management

- Q1.** A company's requirements for ten days are 6,300 units. The ordering cost per order is ₹10 and the carrying cost per unit is ₹0.26. You are required to calculate the economic order quantity.
- Q2.** Marvel Limited uses a large quantity of salt in its production process. Annual consumption is 60,000 tones over a 50-week working year. It costs ₹100 to initiate and process an order and delivery follow two weeks later. Storage costs for the salt are estimated at 10paise per ton per annum. The current practice is to order twice a year when the stock falls to 10,000 tonnes. Recommend an appropriate ordering policy for Marvel Limited, and contrast it with the cost of the current policy.
- Q3.** Pure air Company is a distributor of air filters to retail stores. It buys its filters from several manufacturers. Filters are ordered in lot sizes of 1,000 and each order costs ₹40 to place. Demand from retail stores is 20,000 filters per month, and carrying cost is ₹0.10 a filter per month.
- (a) What is the optimal order quantity with respect to so many lot sizes?
- (b) What would be the optimal order quantity if the carrying cost were ₹0.05 a filter per month?
- (c) What would be the optimal order quantity if ordering costs were ₹10?
- Q4.** A publishing house purchases 72,000 rims of a special type paper per annum at cost ₹90 per rim. Ordering cost per order is ₹500 and the carrying cost is 5 per cent per year of the inventory cost. Normal lead time is 20 days and safety stock is NIL. Assume 300 working days in a year:
- You are required:
1. Calculate the Economic Order Quantity (E.O.Q).
 2. Calculate the Reorder Inventory Level.

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3. If a 1 per cent quantity discount is offered by the supplier for purchases in lots of 18,000 rims or more, should the publishing house accept the proposal? [Home Work]

Q5. The demand for a certain product is random. It has been estimated that the monthly demand of the product has a normal distribution with a mean of 390 units. The unit price of product is ₹25. Ordering cost is ₹40 per order and inventory carrying cost is estimated to be 35 per cent per year.

Required:

Calculate Economic Order Quantity (EOQ). [Home Work]

Q6. A Ltd uses inventory turnover as one performance measure to evaluate its production manager. Currently, its inventory turnover (based on cost of goods sold ÷ inventory) is 10 times per annum, as compared with industry average of 4. Average sales are ₹4, 50,000 p.a. variable costs of inventory have consistently remained at 70% of sales with fixed costs of ₹10,000. Carrying costs of inventory (excluding financing costs) are 5% per annum. Sales force complained that low inventory levels are resulting in lost-sales due to stock outs. Sales manager has made an estimate based on stock out reports as under:

Inventory Policy	Inventory Turnover	Sales in ₹
Current	10	4,50,000
A	8	5,00,000
B	6	5,40,000
C	4	5,65,000

On the basis of the above estimates, assuming a 40% tax rate and after tax required return of 20% on investment in inventory, which policy would you recommend?

Unit IV: Management of Receivables

Q1. What do you mean by management of receivables? Also explain why management of receivables is an important issue.

Answer:

- ✓ Management of receivables refers to planning and controlling of 'debt' owed to the firm from customer on account of credit sales.
- ✓ It is also known as trade credit management.
- ✓ The basic objective of management of receivables (debtors) is to optimise the return on investment on these assets.
- ✓ Large amounts are tied up in receivables, there are chances of bad debts and there will be cost of collection of debts.
- ✓ On the contrary, if the investment in receivables is low, the sales may be restricted, since the competitors may offer more liberal terms.
- ✓ Therefore, management of receivables is an important issue and requires proper policies and their implementation.

Q2. What are the different aspects of management of receivables?

Answer:

There are basically three aspects of management of receivables:

1. Credit Policy:

- ✓ It is important to determine the credit policy. Decision of Credit standards, Credit terms and collection efforts is included in Credit policy.
- ✓ It involves a trade- off between the profits on additional sales that arise due to credit being extended on the one hand and the cost of carrying those debtors and bad debt losses on the other.
- ✓ This seeks to decide credit period, cash discount and other relevant matters.
- ✓ The credit period is generally stated in terms of net days.
- ✓ For example if the firm's credit terms are "net 50". It is expected that customers will repay credit obligations not later than 50 days.

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- ✓ Further, the cash discount policy of the firm specifies:
 - (a) The rate of cash discount.
 - (b) The cash discount period; and
 - (c) The net credit period.
- 2. Credit Analysis:
 - ✓ This requires the finance manager to determine as to how risky it is to advance credit to a particular party.
- 3. Control of Receivable:
 - ✓ This requires finance manager to follow up debtors and decide about a suitable credit collection policy.
 - ✓ It involves both laying down of credit policies and execution of such policies.

Q3. Mention the different types of cost incurred for maintaining receivables.

Answer:

There is always cost of maintaining receivables which comprises of following costs:

- i. The company requires additional funds as resources are blocked in receivables which involves a cost in the form of interest (loan funds) or opportunity cost (own funds)
- ii. Administrative costs which include record keeping, investigation of credit worthiness etc.
- iii. Collection costs
- iv. Defaulting costs.

Q4. What are the different factors determining credit policy?

Answer:

The credit policy is an important factor determining both the quantity and quality of accounts receivables. Various factors determine the size of the investment a company makes in accounts receivables.

They are, for instance:

- i. The effect of credit on the volume of sales;
- ii. Credit terms;
- iii. Cash discount;
- iv. Policies and practices of the firm for selecting credit customers;
- v. Paying practices and habits of the customers;
- vi. The firm's policy and practice of collection; and
- vii. The degree of operating efficiency in the billing, record keeping and adjustment function, other costs such as interest, collection costs and bad debts etc., would also have an impact on the size of the investment in receivables. The rising trend in these costs would depress the size of investment in receivables.

Q5. What are the different types of credit policy? Explain the situation under both the policies.

Answer:

- ✓ Generally, a firm may follow a lenient or a stringent credit policy.
- ✓ The firm which follows a lenient credit policy sells on credit to customers on very liberal terms and standards.
- ✓ On the contrary a firm following a stringent credit policy sells on credit on a highly selective basis only to those customers who have proper credit worthiness and who are financially sound.
- ✓ Any increase in accounts receivables that is, additional extension of trade credit not only results in higher sales but also requires additional financing to support the increased investment in accounts receivables.
- ✓ The costs of credit investigations and collection efforts and the chances of bad debts are also increased.

Q6. What are the different factors which are under the control of the finance manager?

Or,

With respect to management of receivables, what are the operating responsibilities of finance manager?

Answer:

The finance manager has operating responsibility for the management of the investment in receivables. His involvement includes:-

- (a) Supervising the administration of credit;
- (b) Contribute to top management decisions relating to the best credit policies of the firm;
- (c) Deciding the criteria for selection of credit applications; and
- (d) Speed up the conversion of receivables into cash by aggressive collection policy.

In summary the finance manager has to strike a balance between the cost of increased investment in receivables and profits from the higher levels of sales.

Q7. What are the different approaches used for evaluation of credit policies? Give the format under both the approaches.

Answer:

There are basically two methods of evaluating the credit policies to be adopted by a Company –

- (a) Total Approach and
- (b) Incremental Approach.

The formats for the two approaches are given as under:

A. Statement showing the Evaluation of Credit Policies (based on Total Approach)

Particulars	Present Policy	Proposed Policy I	Proposed Policy II	Proposed Policy III
	₹	₹	₹	₹

A. Expected Profit:

(a) Credit Sales	----	----	----	----
(b) Total Cost other than Bad debts				

i. Variable Cost	----	----	----	----
ii. Fixed Costs	----	----	----	----
<hr/>				
(c) Bad Debts	----	----	----	----
(d) Cash Discount	----	----	----	----
(e) Expected Net Profit before Tax (a-b-c-d)	----	----	----	----
(f) Less: Tax	----	----	----	----
(g) Expected Profit after Tax	----	----	----	----
A. Opportunity Cost of Investments in Receivables locked up in collection Period	----	----	----	----
<hr/>				
Net Benefits (A-B)	----	----	----	----

Advise: The Policy.....should be adopted since the net benefits under this policy are higher as compared to other policies

B. Statement showing the Evaluation of Credit Policies (based on Incremental Approach)

Particulars	Present	Proposed	Proposed	Proposed
	Policy	Policy	Policy days	Policy days
	days	days I	II	III
	₹	₹	₹	₹
A. Incremental Expected Profit				
Credit Sales				
(a) Incremental Credit Sales				
(b) Less: Incremental Costs of Credit Sales				
(i) Variable Costs				
(ii) Fixed Costs				
(c) Incremental Bad Debt Losses				
(d) Incremental Cash Discount				

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(e) Incremental Expected
Profit (a-b-c-d)

(f) Less: Tax

(g) Incremental Expected
Profit after Tax

B. Required Return on
Incremental
Investments:

(a) Cost of Credit Sales

(b) Collection Period (in
days)

(c) Investment in Receivable
($a \times b / 365$) or 360

(d) Incremental Investment
in Receivables

(e) Required Rate of Return
(in %)

(f) Required Return on
Incremental Investments
($d \times e$)

Incremental Net Benefits
(A-B)

Advise: The Policy.....should be adopted since the net benefits under this policy are higher as compared to other policies

Q8. Pledging of accounts receivables and Factoring have emerged as the important sources of financing of accounts receivables now-a-days. Briefly explain both the concepts.

Answer:

Pledging of accounts receivables and Factoring have been explained as below:

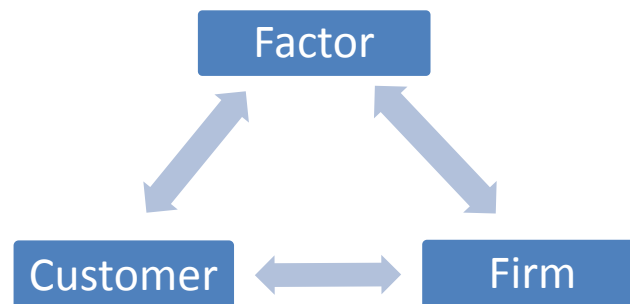
1. Pledging:

- ✓ This refers to the use of a firm's receivable to secure a short term loan.
- ✓ A firm's receivables can be termed as its most liquid assets and this serve as prime collateral for a secured loan.

- ✓ The lender scrutinizes the quality of the accounts receivables, selects acceptable accounts, creates a lien on the collateral and fixes the percentage of financing receivables which ranges around 50 to 90%.
- ✓ The major advantage of pledging accounts receivables is the ease and flexibility it provides to the borrower.
- ✓ Moreover, financing is done regularly.
- ✓ This, however, suffers on account of high cost of financing.

2. Factoring:

- ✓ Factoring is a relatively new concept in financing of accounts receivables.
- ✓ This refers to outright sale of accounts receivables to a factor or a financial agency.
- ✓ A factor is a firm that acquires the receivables of other firms.
- ✓ The factoring lays down the conditions of the sale in a factoring agreement.
- ✓ The factoring agency bears the right of collection and services the accounts for a fee.



Q9. Explain factoring arrangement on a recourse basis as well as non-recourse basis.

Answer:

- ✓ Normally, factoring is the arrangement on a non-recourse basis where in the event of default the loss is borne by the factor.
- ✓ However, in a factoring arrangement with recourse, in such situation, the accounts receivables will be turned back to the firm by the factor for resolution.

Q10. Also mention the different advantages of factoring.

Answer:

The advantages of factoring are mentioned as below:

- ✓ Immediate conversion of receivables into cash
- ✓ Predicted pattern of cash flows.
- ✓ It helps a company having liquidity without creating a net liability on its financial condition.
- ✓ It is a flexible financial tool providing timely funds, efficient record keepings and effective management of the collection process.
- ✓ It is not considered to be as a loan.
- ✓ There is no debt repayment, no compromise to balance sheet, no long term agreements or delays associated with other methods of raising capital.
- ✓ It allows the firm to use cash for the growth needs of business.

Q11. Statement showing the evaluation of factoring proposal**Answer:**

The basic format for evaluating factoring proposal is given as under:

Statement showing the evaluation of factoring proposal

Particulars	(₹)
A. Annual Savings (Benefit) on taking Factoring Service	
Cost of Credit Administration saved	----
Bad debts avoided	----
Interest saved due to reduction in Average collection period (wherever applicable) [Cost of Annual Credit Sales × Rate of Interest × (Present Collection Period – New Collection Period)/360* days]	----
Total	----
B. Annual Cost of Factoring to the firm:	
Factoring Commission [Annual Credit Sales × % of Commission (or calculated annually)]	----
Interest Charged by Factor on advance (or calculated annually) [Amount available for advance or (Annual Credit Sales – Factoring Commission – Factoring Reserve)] × $\left[\frac{\text{Collection Period (days)}}{360*} \times \text{Rate of Interest}\right]$	----
Total	----
C. Net Annual Benefits/Cost of Factoring to the Firm:	
Rate of effective cost of factoring to the firm	----
$= \frac{\text{Net Annual cost of factoring}}{\text{Amount available for advance}} \times 100$	
$= \frac{\text{Net Annual cost of factoring}}{\text{Advances to be paid}} \times 100$	
Advances to be paid = (Amount available for advance – Interest deducted by factor)	

*1 year is taken as 360 days

Advise:

- The company should avail Factoring Services if rate of effective Cost of Factoring to the firm is less than the existing cost of borrowing or if availing services of factoring results in to positive Net Annual Benefits.

2. The company should not avail Factoring services if the rate of effective cost of factoring to the firm is more than the existing cost of borrowing.

Q12. During the recent years, a number of tools, techniques, practices and measures have been invented to increase effectiveness in accounts receivable management.

What are the major determinants for these significant innovations in accounts receivable management and process efficiency?

Answer:

Following are the major determinants for significant innovations in accounts receivable management and process efficiency.

1. Re-engineering Receivable Process
2. Evaluation of Risk
3. Use of Latest Technology
4. Receivables Collection Practices
5. Use of financial tools/techniques

Q13. Briefly explain “Re-engineering Receivable Process” as a determinant for significant innovations in accounts receivable management and process efficiency.

Answer:

Re-engineering is a fundamental re-think and re-design of business processes by incorporating modern business approaches.

The nature of accounts receivables is such that decisions made elsewhere in the organization are likely to affect the level of resources that are expended on the management of accounts receivables.

The following aspects provide an opportunity to improve the management of accounts receivables:

(a) Centralization:

- ✓ Centralization of high nature transactions of accounts receivables and payable is one of the practices for better efficiency.
- ✓ This focuses attention on specialized groups for speedy recovery.

(b) Alternative Payment Strategies:

- ✓ It is observed that payment of accounts outstanding is likely to be quicker where a number of payment alternatives are made available to customers.
 - ✓ Besides, this convenient payment method is a marketing tool that is of benefit in attracting and retaining customers.
 - ✓ There are different alternative modes of payment which may be used alongwith traditional methods like Cheque Book etc., for making timely payment, added customer service, reducing remittance processing costs and improved cash flows and better debtor turnover.
- (c) Customer Orientation:
- ✓ Where individual customers or a group of customers have some strategic importance to the firm a case study approach may be followed to develop good customer relations.
 - ✓ A critical study of this group may lead to formation of a strategy for prompt settlement of debt.

Q14. What are the different alternative modes of payment which may be used by an organization along with traditional methods?

Answer:

The following are the different alternative modes of payment used by an organization along with traditional methods:

- (i) Direct debit:
 - ✓ It is basically authorization for the transfer of funds from the purchaser's bank account.
- (ii) Integrated Voice Response:
 - ✓ This system uses human operators and a computer based system to allow customers to make payment over phone, generally by credit card.
 - ✓ This system has proved to be beneficial in the organizations processing a large number of payments regularly.
- (iii) Collection by a third party:
 - ✓ The payment can be collected by an authorized external firm.

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- ✓ The payments can be made by cash, cheque, credit card or Electronic fund transfer.
 - ✓ Banks may also be acting as collecting agents of their customers and directly depositing the collections in customers' bank accounts.
- (iv) Lock Box Processing:
- ✓ Under this system an outsourced partner captures cheques and invoice data and transmits the file to the client firm for processing in that firm's systems.
- (v) Payments via Internet.

Q15. Briefly explain "Evaluation of Risk" as a determinant for significant innovations in accounts receivable management and process efficiency.

Answer:

- ✓ Evaluation of risk is a major component in the establishment of an effective control mechanism.
- ✓ Once risks have been properly assessed controls can be introduced to either contain the risk to an acceptable level or to eliminate them entirely.
- ✓ This also provides an opportunity for removing inefficient practices.
- ✓ This involves a re-think of processes and questioning the way that tasks are performed.
- ✓ This also opens the way for efficiency and effectiveness benefits in the management of accounts receivables.

Q16. Briefly explain “Use of Latest Technology” as a determinant for significant innovations in accounts receivable management and process efficiency.

Answer:

Technological developments now-a-days provides an opportunity for improvement in accounts receivables process.

The major innovations available are the integration of systems used in the management of accounts receivables, the automation and the use of e-commerce.

They are mentioned as below:

1. E-commerce:

- ✓ It refers to the use of computer and electronic telecommunication technologies, particularly on an inter-organizational level, to support trading in goods and services.
- ✓ It uses technologies such as Electronic Data Inter- change (EDI), Electronic Mail, Electronic Funds Transfer (EFT) and Electronic Catalogue Systems to allow the buyer and seller to transact business by exchange of information between computer application systems.

2. Automated Accounts Receivable Management Systems:

- ✓ Now-a-days all the big companies develop and maintain automated receivable management systems.
- ✓ Manual systems of recording the transactions and managing receivables are not only cumbersome but ultimately costly also.
- ✓ These integrated systems automatically update all the accounting records affected by a transaction.
- ✓ For example, if a transaction of credit sale is to be recorded, the system increases the amount the customer owes to the firm, reduces the inventory for the item purchased, and records the sale.
- ✓ This system of a company allows the application and tracking of receivables and collections.
- ✓ The benefits of automated receivables system are mentioned as below:

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- It allows the company to store important information for an unlimited number of customers and transactions, and
- It also allows the company to accommodate efficient processing of customer payments and adjustments.

Q17. Briefly explain “Receivable Collection Practices” as a determinant for significant innovations in accounts receivable management and process efficiency. Also mention the major receivable collection procedure and practices.

Answer:

- ✓ The aim of debtors’ collection should be to reduce, monitor and control the accounts receivable and at the same time maintain customer goodwill.
- ✓ The fundamental rule of sound receivable management should be to reduce the time lag between the sale and collection.
- ✓ Any delays that lengthen this span causes receivables to unnecessary build up and increase the risk of bad debts.
- ✓ This is equally true for the delays caused by billing and collection procedures as it is for delays caused by the customer.
- ✓ The following are major receivable collection procedures and practices:
 - i. Issue of Invoice.
 - ii. Pen account or open-end credit.
 - iii. Credit terms or time limits.
 - iv. Periodic statements.
 - v. Use of payment incentives and penalties. (vi) Record keeping and Continuous Audit.
 - vi. Export Factoring: Factors provide comprehensive credit management, loss protection collection services and provision of working capital to the firms exporting internationally.
 - vii. Business Process Outsourcing: This refers to a strategic business tool whereby an outside agency takes over the entire responsibility for managing a business process.

Q18. Briefly explain “Use of Financial tools/techniques” as a determinant for significant innovations in accounts receivable management and process efficiency.

Answer:

The finance manager while managing accounts receivables uses a number of financial tools and techniques.

Some of them have been described hereby as follows:

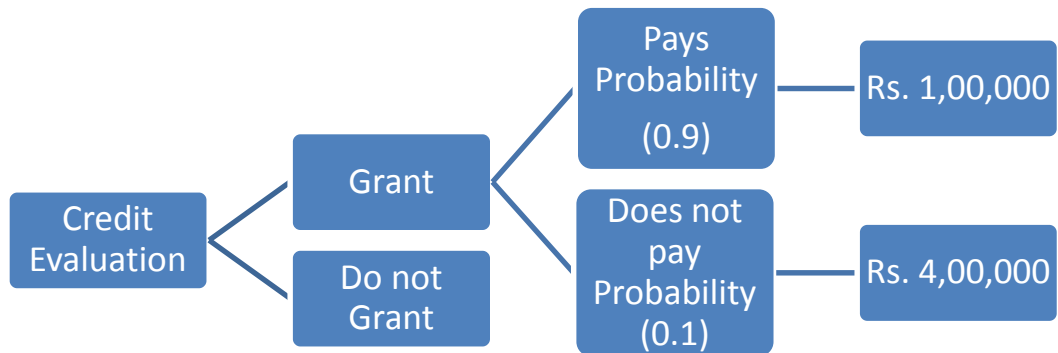
i. Credit analysis:

- ✓ While determining the credit terms, the firm has to evaluate individual customers in respect of their credit worthiness and the possibility of bad debts.
- ✓ For this purpose, the firm has to ascertain credit rating of prospective customers.

ii. Decision tree analysis of granting credit:

- ✓ The decision whether to grant credit or not is a decision involving costs and benefits.
- ✓ When a customer pays, the seller makes profit but when he fails to pay, then the amount of cost going into the product is also gone.
- ✓ If the relative chances of recovering the dues can be decided it can form a probability distribution of payment or non-payment.
- ✓ Example:
 - If the chances of recovery are 9 out of 10 then probability of recovery is 0.9 and that of default is 0.1.
 - Credit evaluation of a customer shows that the probability of recovery is 0.9 and that of default is 0.1.
 - The revenue from the order is ₹ 5 lakhs and cost is ₹ 4 lakhs.
 - The decision is whether credit should be granted or not.
 - The analysis is presented in the following diagram:

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- The weighted net benefit is ₹ $[1,00,000 \times 0.9 \text{ i.e. } 90,000 - 0.1 \times 4,00,000 \text{ i.e. } 40,000] = 50,000$. So credit should be granted.

iii. Control of receivables:

- ✓ Another aspect of management of debtors is the control of receivables.
- ✓ Merely setting standards and framing a credit policy is not sufficient; it is, equally important to control receivables.

iv. Collection policy:

- ✓ Efficient and timely collection of debtors ensures that the bad debt losses are reduced to the minimum and the average collection period is shorter.
- ✓ If a firm spends more resources on collection of debts, it is likely to have smaller bad debts.
- ✓ Thus, a firm must work out the optimum amount that it should spend on collection of debtors.
- ✓ This involves a trade-off between the level of expenditure on one hand and decrease in bad debt losses and investment in debtors on the other.
- ✓ The collection cell of a firm has to work in a manner that it does not create too much resentment amongst the customers.

- ✓ On the other hand, it has to keep the amount of the outstanding in check.
- ✓ Hence, it has to work in a very smoothen manner and diplomatically.
- ✓ It is important that clear-cut procedures regarding credit collection are set up.

Q19. For a credit collection policy to be successful, it is highly important that clear-cut procedures regarding credit collection are set-up. What are the different questions that these procedures must answer?

Answer:

The clear-cut procedures must answer to questions like the following:

- (a) How long should a debtor balance be allowed to exist before collection process is started?
- (b) What should be the procedure of follow up with defaulting customer? How reminders are to be sent and how should each successive reminder be drafted?
- (c) Should there be collection machinery whereby personal calls by company's representatives are made?
- (d) What should be the procedure for dealing with doubtful accounts? Is legal action to be instituted? How should account be handled?

Q20. Write a short note on "Credit Rating".

Answer:

- ✓ An important task for the finance manager is to rate the various debtors who seek credit facility.
- ✓ This involves decisions regarding individual parties so as to ascertain how much credit can be extended and for how long.
- ✓ In foreign countries specialized agencies are engaged in the task of providing rating information regarding individual parties. Dun and Broad Street is one such source.

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- ✓ The finance manager has to look into the credit-worthiness of a party and sanction credit limit only after he is convinced that the party is sound.
- ✓ This would involve an analysis of the financial status of the party, its reputation and previous record of meeting commitments.
- ✓ The credit manager here has to employ a number of sources to obtain credit information.
- ✓ The following are the important sources:
 - Trade references;
 - Bank references;
 - Credit bureau reports;
 - Past experience;
 - Published financial statements; and
 - Salesman's interview and reports.
- ✓ Once the credit-worthiness of a client is ascertained, the next question is to set a limit of the credit.
- ✓ In all such enquiries, the credit manager must be discreet and should always have the interest of high sales in view.

Q21. What are the different components involves in monitoring of receivables?

Answer:

The monitoring of receivables involves the following components:

- i. Computation of average age of receivables:
 - ✓ It involves computation of average collection period.
- ii. Ageing Schedule:
 - ✓ When receivables are analyzed according to their age, the process is known as preparing the ageing schedules of receivables.
 - ✓ The computation of average age of receivables is a quick and effective method of comparing the liquidity of receivables with the liquidity of receivables in the past and also comparing liquidity of one firm with the liquidity of the other competitive firm.

- ✓ It also helps the firm to predict collection pattern of receivables in future.
- ✓ This comparison can be made periodically.
- ✓ The purpose of classifying receivables by age groups is to have a closer control over the quality of individual accounts.
- ✓ It requires going back to the receivables ledger where the dates of each customer's purchases and payments are available.
- ✓ The ageing schedule, by indicating a tendency for old accounts to accumulate, provides a useful supplement to average collection period of receivables/sales analysis.
- ✓ Because an analysis of receivables in terms of associated dates of sales enables the firm to recognize the recent increases, and slumps in sales.
- ✓ To ascertain the condition of receivables for control purposes, it may be considered desirable to compare the current ageing schedule with an earlier ageing schedule in the same firm and also to compare this information with the experience of other firms.

iii. Collection Program:

- (a) Monitoring the state of receivables
- (b) Intimation to customers when due date approaches
- (c) Telegraphic and telephonic advice to customers on the due date
- (d) Threat of legal action on overdue A/cs
- (e) Legal action on overdue A/cs

Practical Questions

Q1. Metallica Toys manufacturers dye cast metallic cars for kids. Its present sale is ₹60lakhs per annum with 20 days credit period. The company is contemplating an increase in the credit period with a view to increasing sales. Present variable costs are 70% of sales and the total fixed costs ₹ 8lakhs per annum. The company expects pre-tax return on investment @ 25%. Some other details are given as under:

Proposed Credit Policy	Average Collection Period	Expected Annual Sales
I	30	65
II	40	70
III	50	74
IV	60	75

You are required to advise the company on the policy to be adopted. Assume 360-days a year. Calculations should be made up to two digits after decimal.

Q2. A bank is analyzing the receivables of Jackson Company in order to identify acceptable collateral for a short-term loan. The company's credit policy is 2/10 net 30. The bank lends 80 percent on accounts where customers are not currently overdue and where the average payment period does not exceed 10 days past the net period. A schedule of Jackson's receivables has been prepared. How much will the bank lend on pledge of receivables, if the bank uses a 10 per cent allowance for cash discount and returns?

Account	Amount	Days Outstanding	Average Payment Collection Period
74	25,000	15	20
91	9,000	45	60
107	11,500	22	24
108	2,300	9	10
114	18,000	50	45

116	29,000	16	10
123	14,000	27	48
<hr/>			
1,08,800			
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- Q3.** The credit manager of XYZ Ltd. is reappraising the company's credit policy. The company sells the products on terms of net 30. Cost of goods sold is 85% of sales and fixed costs are further 5% of sales. XYZ classifies its customers on a scale of 1 to 4. During the past five years, the experience was as under:

Classification	Default as a % of sales	Average collection period in days for non-defaulting accounts
1	0	45
2	2	42
3	10	40
4	20	80

The average rate of interest is 15%. What conclusions do you draw about the company's Credit Policy? What other factors should be taken into account before changing the present policy? Discuss.

- Q4.** A company has prepared the following projections for a year:

Sales	21,000 units
Selling Price Per Unit	₹40
Variable Cost Per Unit	₹25
Total Cost Per Unit	₹35
Credit Period Allowed	One month

The Company proposes to increase the credit period allowed to its customers from one month to two months. It is envisaged that the change in the policy as above will increase the sales by 8%. The company desires a return of 25% on its investment.

You are required to examine and advise whether the proposed Credit Policy should be implemented or not.

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- Q5.** A firm has a current sales of ₹2,56,48,750. The firm has unutilized capacity. In order to boost its sales, it is considering the relaxation in its credit policy. The proposed terms of credit will be 60 days credit against the present policy of 45 days. As a result, the bad debts will increase from 1.5% to 2% of sales. The firm's sales are expected to increase by 10%. The variable operating costs are 72% of the sales. The Firm's corporate tax rate is 35%, and it requires an after-tax return of 15% on its investment. Should the firm change its credit period?[Home Work]
- Q6.** A firm is considering offering 30-day credit to its customers. The firm likes to charge them an annualized rate of 24%. The firm wants to structure the credit in terms of a cash discount for immediate payment. How much would the discount rate have to be?
- Q7.** JKL Ltd. is considering the revision of its credit policy with a view to increasing its sales and profit. Currently all its sales are on credit and the customers are given one month's time to settle the dues. It has a contribution of 40% on sales and it can raise additional funds at a cost of 20% per annum. The marketing manager of the company has given the following options along with estimates for considerations:

Particulars	Current Position	Option I	Option II	Option III
Sales (in lakhs)	200	210	220	250
Credit Period (in months)	1	1½	2	3
Bade Debts (% of sales)	2	2½	3	5
Cost of credit administration (in lakhs)	1.20	1.30	1.50	3.00

You are required to advise the company for the best option.

Q8. The Marketing Manager of XY Ltd. is giving a proposal to the Board of Directors of the company that an increase in credit period allowed to customers from the present one month to two months will bring a 25% increase in sales volume in the next year.

The following operational data of the company for the current year are taken from the records of the company:

	₹
Selling Price	21 p.u.
Variable Cost	14 p.u.
Total Cost	18 p.u.
Sales Value	18,90,000

The Board, by forwarding the above proposal and data requests you to give your expert opinion on the adoption of the new credit policy in next year subject to a condition that the company's required rate of return on investments is 40%. [Home Work]

Q9. A new customer with 10% risk of non-payment desires to establish business connections with you. He would require 1.5 month of credit and is likely to increase your sales by ₹1,20,000 p.a. Cost of sales amounted to 85% of sales. The tax rate is 30%. Should you accept the offer if the required rate of return is 40% (after tax)?

Q10. A company is presently having credit sales of ₹12 lakh. The existing credit terms are 1/10, net 45 days and average collection period is 30 days. The current bad debts loss is 1.5%. In order to accelerate the collection process further as also to increase sales, the company is contemplating liberalization of its existing credit terms to 2/10, net 45 days. It is expected that sales are likely to increase by 1/3 of existing sales, bad debts increase to 2% of sales and average collection period to decline to 20 days. The contribution to sales ratio of the company is 22% and opportunity cost of investment in receivables is 15 percent (pre-tax). 50 per cent and 80 percent of customers in terms of sales revenue are expected to avail cash discount under existing and liberalization scheme respectively. The tax rate is 30%.

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Should the company change its credit terms? (Assume 360 days in a year).

- Q11.** A Company has sales of ₹25,00,000. Average collection period is 50 days, bad debt losses are 5% of sales and collection expenses are ₹25,000. The cost of funds is 15%. The Company has two alternative Collection Programmes: [Home Work]

	Programme I	Programme II
Average Collection Period reduced to	40 days	30 days
Bad debt Losses Reduced to	4% of sales	3% of sales
Collection Expenses	₹50,000	₹80,000

- Q12.** A Ltd. has total sales of ₹3.2crores and its average collection period is 90 days. The past experience indicates that bad-debt losses are 1.5% on sales. The expenditure incurred by the firm in administering its receivable collection efforts are ₹5,00,000. A factor is prepared to buy the firm's receivables by charging 2% commission. The factor will pay advance on receivables to the firm at an interest rate of 18% p.a. after withholding 10% as reserve.

Calculate the effective cost of factoring to the Firm.

- Q13.** PTX Limited is considering a change in its present credit policy. Currently it is evaluating two policies. The company is required to give a return of 20% on the investment in new accounts receivables. The company's variable costs are 70% of the selling price. Information regarding present and proposed policies is as follows:

	Present Policy	Policy 1	Policy 2
Annual Credit Sales	30,00,000	42,00,000	45,00,000
Debtors Turnover Ratio	4 times	3 times	2.4 times
Loss due to Bad Debts	3% of sales	5% of sales	6% of sales

Note: Return on investment in new accounts receivable is based on cost of investment in debtors.

Which option would you recommend? [Home Work]

Q14. A company currently has an annual turnover of ₹50lakhs and an average collection period of 30 days. The company wants to experiment with a more liberal credit policy on the ground that increase in collection period will generate additional sales.

From the following information, kindly indicate which policy the company should adopt:

Credit Policy	Average Collection Period	Annual Sales (₹in lakhs)
A	45 days	56
B	60 days	60
C	75 days	62
D	90 days	63

Costs:

Variable cost: 80% of sales

Fixed cost: ₹6lakhs per annum

Required (pre-tax) return on investment: 20%

A year may be taken to comprise of 360 days. [Home Work]

Q15. The turnover of PQR Ltd. is ₹120lakhs of which 75 per cent is on credit. The variable cost ratio is 80 per cent. The credit terms are 2/10, net 30. On the current level of sales, the bad debts are 1 per cent. The company spends ₹1,20,000 per annum on administering its credit sales. The cost includes salaries of staff who handle credit checking, collection etc. These are avoidable costs. The past experience indicates that 60 per cent of the customers avail of the cash discount, the remaining customers pay on an average 60 days after the date of sale.

The Book debts (receivable) of the company are presently being financed in the ratio of 1 : 1 by a mix of bank borrowings and owned funds which cost per annum 15 per cent and 14 per cent respectively.

A factoring firm has offered to buy the firm's receivables. The main elements of such deal structured by the factor are:

- Factor reserve, 12 per cent
- Guaranteed payment, 25 days

Management of Working Capital

- Interest charges, 15 per cent, and
- Commission 4 per cent of the value of receivables.

Assume 360 days in a year.

What advice would you give to PQR Ltd. - whether to continue with the in house management of receivables or accept the factoring firm's offer?

- Q16.** A firm has a total sales of ₹12,00,000 and its average collection period is 90 days. The past experience indicates that bad debt losses are 1.5% on sales. The expenditure incurred by the firm in administering receivable collection efforts are ₹50,000. A factor is prepared to buy the firm's receivables by charging 2% commission. The factor will pay advance on receivables to the firm at an interest rate of 16% p.a. after withholding 10% as reserve. Calculate effective cost of factoring to the firm. Assume 360 days in a year.
- Q17.** RST Limited is considering relaxing its present credit policy and is in the process of evaluating two proposed policies. Currently, the firm has annual credit sales of ₹225 lakhs and accounts receivable turnover ratio of 5 times a year. The current level of loss due to bad debts is ₹7,50,000. The firm is required to give a return of 20% on the investment in new accounts receivables. The company's variable costs are 60% of the selling price. Given the following information, which is a better option?

[Home Work] (Amount in lakhs)

	Present Policy	Policy Option I	Policy Option II
Annual Credit Sales	225	275	350
Account Receivable Turnover	5	4	3
Bad Debt Losses	7.5	22.5	47.5

Unit V: Management of Payables (Creditors)

Q1. Explain why management of creditors and suppliers is just as important as the management of debtors.

Answer:

- ✓ There is an old age saying in business that if you can buy well then you can sell well.
- ✓ Management of creditors and suppliers is just as important as the management of debtors.
- ✓ Trade creditor is a spontaneous source of finance in the sense that it arises from ordinary business transaction.
- ✓ But it is also important to look after creditors - slow payment by the organization may create ill-feeling and the supplies could be disrupted and also create a bad image for the organization.
- ✓ Creditors are a vital part of effective cash management and should be managed carefully to enhance the cash position.

Q2. What are the different costs involved in availing trade credit?

Answer:

Normally it is considered that the trade credit does not carry any cost. However, it carries the following costs:

- i. Price:
 - ✓ There is often a discount on the price that the firm undergoes when it uses trade credit, since it can take advantage of the discount only if it pays immediately.
 - ✓ This discount can translate into a high implicit cost.
- ii. Loss of goodwill:
 - ✓ If the credit is overstepped, suppliers may discriminate against delinquent customers if supplies become short.
 - ✓ As with the effect of any loss of goodwill, it depends very much on the relative market strengths of the parties involved.
- iii. Cost of managing:

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- ✓ Management of creditors involves administrative and accounting costs that would otherwise be incurred.
- iv. Conditions:
 - ✓ Sometimes most of the suppliers insist that for availing the credit facility the order should be of some minimum size or even on regular basis.

Q3. What are the different costs involved when trade credit is not availed?

Answer:

The costs of not availing credit facilities are mentioned as under:

- i. Impact of Inflation:
 - ✓ If inflation persists then the borrowers are favored over the lenders with the levels of interest rates not seeming totally to redress the balance.
- ii. Interest:
 - ✓ Trade credit is a type of interest free loan, therefore failure to avail this facility has an interest cost. This cost is further increased if interest rates are higher.
- iii. Inconvenience:
 - ✓ Sometimes it may also cause inconvenience to the supplier if the supplier is geared to the deferred payment.

Q4. How will you compute the cost of payables?

Answer:

- ✓ By using the trade credit judiciously, a firm can reduce the effect of growth or burden on investments in Working Capital.
- ✓ Now question arises how to calculate the cost of not taking the discount.
- ✓ The following equation can be used to calculate nominal cost, on an annual basis of not taking the discount:

$$= \frac{d}{100 - d} \times \frac{365 \text{ days}}{t}$$

- ✓ However the above formula does not take into account the compounding effect and therefore, the cost of credit shall be even higher.

- ✓ The cost of lost cash discount can be estimated by the formula:

$$= \left(\frac{100}{100 - d} \right)^{\frac{365}{t}} - 1$$

Where,

d = Size of discount i.e. for 6% discount, d=6

t = the reduction in the payment period in days, necessary to obtain the early discount or Days Credit Outstanding – Discount Period.

Practical Questions

Q1. Suppose ABC Ltd. has been offered credit terms from its major supplier of 2/10, net 45. Hence the company has the choice of paying ₹ 10 per ₹ 100 or to invest ₹ 98 for an additional 35 days and eventually pay the supplier ₹ 100 per ₹ 100. The decision as to whether the discount should be accepted depends on the opportunity cost of investing ₹ 98 for 35 days. What should the company do?

Answer:

If the company does not avail the cash discount and pays the amount after 45 days, the implied cost of interest per annum would be approximately:

$$\left(\frac{100}{100 - d} \right)^{\frac{365}{35}} - 1 = 23.5\%$$

Now let us assume that ABC Ltd. can invest the additional cash and obtain an annual return of 25% and if the amount of invoice is ₹ 10,000.

The alternatives are as follows:

	Refuse discount	Accept discount
	₹	₹
Payment to supplier	10,000	9,800
Return from investing Rs.9,800 between day 10 and day 45: $= \frac{35}{365} \times \text{Rs } 9,800 \times 25\%$	(235)	
Net Cost	9,765	9,800

Advice:

Thus, it is better for the company to refuse the discount, as return on cash retained is more than the saving on account of discount.