



Important Instructions to examiners:

- 1) The answers should be examined by key words and not as word-to-word as given in the model answer scheme.
- 2) The model answer and the answer written by candidate may vary but the examiner may try to assess the understanding level of the candidate.
- 3) The language errors such as grammatical, spelling errors should not be given more Importance (Not applicable for subject English and Communication Skills).
- 4) While assessing figures, examiner may give credit for principal components indicated in the figure. The figures drawn by candidate and model answer may vary. The examiner may give credit for any equivalent figure drawn.
- 5) Credits may be given step wise for numerical problems. In some cases, the assumed constant values may vary and there may be some difference in the candidate's answers and model answer.
- 6) In case of some questions credit may be given by judgement on part of examiner of relevant answer based on candidate's understanding.
- 7) For programming language papers, credit may be given to any other program based on equivalent concept.

Q 1 Attempt any Five

- a) **What is Globalization? State its advantages and disadvantages with respect to India.**

Globalization is a concept by which the globe becomes one unified entity cutting across the political, economic and regional barriers. Initially the investment of foreign companies was restricted, due to that Indian industry was unable to open up ways in international market. This resulted in reduction in exports and increase in imports and consequently reduction in foreign exchange. The industrial Policy Resolution 1990 and that of 1991 were the prime documents of economic liberalization and bold steps taken for globalization of Indian industry. The collaboration of foreign companies was promoted. Since 1991, more and more foreign collaborations are coming up. Multinational companies are coming in India and Indian products are getting tremendous international market. Our foreign exchange reserves have increased, exports are getting higher and overall industrial growth also increased. Customers will have a free choice to select the products as per their likings. Indian firms are competing with the other firms outside the country. The Indian firms adopting recent technologies to become internationally competitive. Indian customers are getting better quality products at reasonable rates.

Advantages:-

- 1) It accelerates the economy
- 2) It provides foreign market for goods
- 3) It increases the sales revenue of the organization
- 4) It provides employment to the people across world

Disadvantages-

- Globalization place international interest above the national interest.
- It may facilitate the interest of multinational companies.
- It may work against the interest of indigenous industries.
- Freedom to multi-nationals may create monopoly interest.

[Explanation -2 Marks, any 2 correct Advantages 1 Mark, any 2 correct Disadvantages 1 Mark]



b) Explain concept of Intellectual Property Right (I.P.R.)

Intellectual property (IP) is a legal concept which refers to creations of the mind for which exclusive rights are recognized. -Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works; discoveries and inventions; and words, phrases, symbols, and designs.

- Common types of intellectual property rights include copyright, trademarks, patents, industrial design rights, trade dress, and in some jurisdictions trade secrets.

[Meaning -2 Marks , Explanation -2 Marks]

c) Explain how management is evolved or Evaluation of Management

Early management theory consisted of numerous attempts at getting to know these newcomers to industrial life at the end of the nineteenth century and beginning of the twentieth century in Europe and United States.

These includes

- Scientific management
- Classical organization theory
- Behavioral school and management science.

[Explanation -4 Marks]

d) What are the function of management

Ans. Function of Management

1. Forecasting
2. Planning
3. Organizing
4. Staffing
5. Directing – Leadership, Communication, Motivation, Supervision.
6. Co-ordinating
7. Controlling
8. Decision Making

[4 marks]

e) Define organization and state the steps in forming organization?

Definition:

- * Large group of people working together to achieve a set task.
- * Once target is set it should be guide in proper way.
- * Organization is mechanism or structure that enables living think to work effectively together.



Steps in Forming Organizations.

1. Determination of objectives
2. Deciding various activities
3. Grouping of activities
4. Assignment of responsibilities of definite process
5. Delegation of authority
6. Providing physical facilities and proper equipment

[Definition -2 Marks, Steps -2 Marks]

f) What is meant by Joint Stock Company?

A joint stock company is an association of individuals, called shareholders, who join together for profit and agree to supply capital divided into shares that are transferable for carrying on a specific business.

Is an association of individuals, called share holders

- In joint stock company
 - Private limited company- Number of members is between 2 and 50
 - In public limited company- Minimum shareholders not less than 7 and there is no limit to maximum number
- Company's life is not affected by the death of share holder
- It is difficult to maintain secrecy
- Team spirit is lacking
- A huge sum of money can be raised

[Explanation -4 Marks]

g) Define personnel management and state its function

Personnel management is defined as obtaining, using and maintaining a satisfied workforce.

1. Procurement and Maintenance of adequate work- force as regards to both- number and quality of personnel.
2. Education and training of present employees.
3. Maintaining Satisfactory Personnel Contact and Employee Relationships
4. Maintaining satisfactory group relationship
5. Maintaining employees health
6. Maintaining employees safety
7. Maintaining employees service activities (employee welfare)



[Definition – 1 mark , any three Functions -1 mark each]

Q.2 Attempt any FOUR of the following.

a) State the types of organizations and explain line and staff organization.

Four Type of organization

1. Line , Military or scalar Organization

2. Functional Organisation

3. Line and Staff Organisation.

4. Project Organisation

[1 marks]

Line and Staff Organisation.

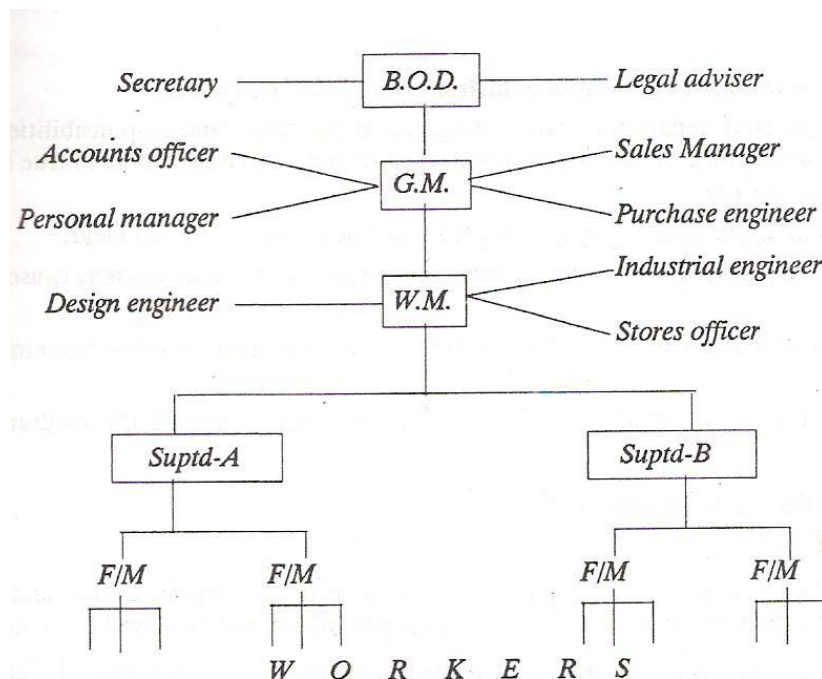
- It is combination of line and Functional organization

- it is horizontal and vertical , both, in structure

- The Line officers make the decisions and issue instructions to subordinates, the staff officers have no authority to issue instructions. But in their decision-making function, the Line officers receive advice and guidance from the Staff Officers.

- Organization will be successful only when there is joint work of 'Managers' and 'Executers.'

[3 marks]



B.O.D. : Board of Directors

G.M. : General Manager

W.M. : Works Manager

Suptd. : Superintendent

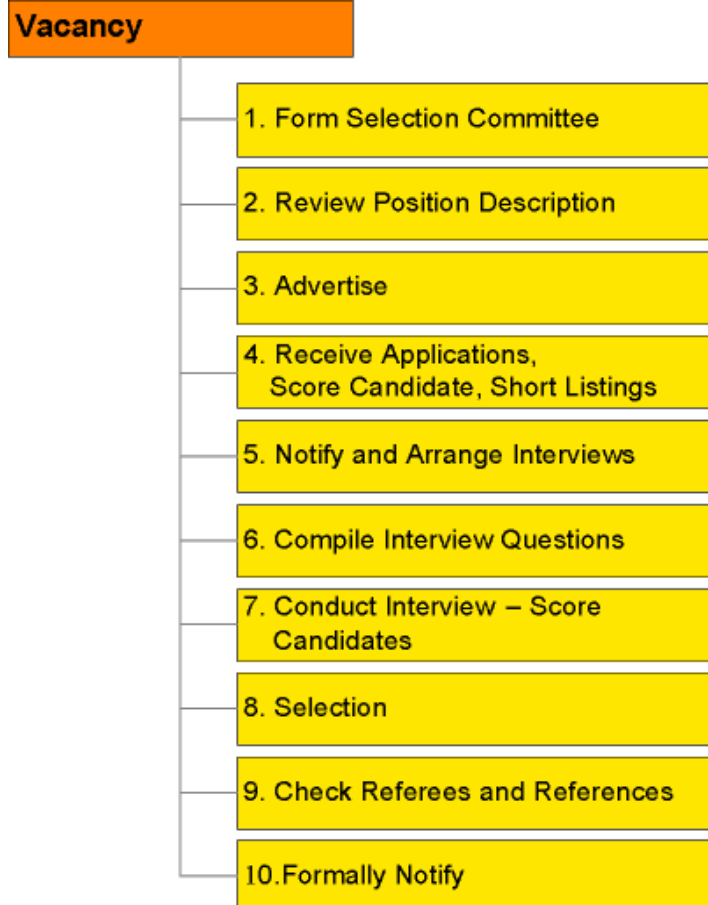
F/M : Foreman

Line and staff organisation.

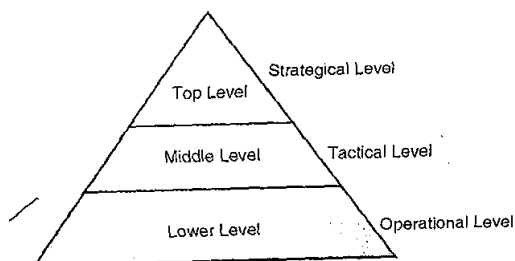
b) State the steps involved in recruitment process

Steps in the recruitment process

The following figure outlines the important steps involved in the recruitment process. These steps are briefly described below.



[4 marks]

c) What are various level of management?**1 Top level of management (1)**

This level includes people like Managing Directors (MD), Chairman, Chief Executive officers (CEO) etc



This level is known as strategic level because all important decision related to whole organization is taken by top management.

2. Middle Level of Management

Middle level of management includes people who are designated as senior managers, Managers of different departments like Finance, HR, Production etc, junior managers, Supervisors etc manages the whole organization and reach to the goal defined by Top management.

3. Lower Level Management

This level is known as operational level. It includes people like clerks, Supervisors, data entry operators, in-charge of different departments, Foreman etc.

People working at this level do day to day activities which are required to complete the goal of overall organization. The operations could be day to day production, payments, purchase, sales, receipts, stock taking etc.

[4 marks]

d) Explain the Scientific Management.

Scientific Management is defined as “Art of knowing exactly what is to be done and the best way of doing it.”

Scientific Management is the result of applying scientific knowledge and scientific methods to the various aspects of management and the problems that arise from them.

It tries to make the best use of production resources i.e. manpower, machines, materials, money etc.. It discovers the economical and efficient methods of production so as to reduce effort and eliminate wastage of time and motions.

It investigates work on scientific basis, selecting the best worker for a task and training him further to acquire desired skill, developing co-operative spirit between management and workers. Thus with use of Scientific Management, greater efficiency is achieved in industrial operations and productivity increased.

[4 marks]

e) Describe the terms authority and responsibility.

Authority

Authority is the formal and legitimate right of a manager to make decisions,

Authority arises from formal contacts or from legal provisions,

Authority can be delegated by superior to subordinate.

Authority flows downward. i.e. from superior to subordinate

Authority has got longer life than responsibility.

[2 marks]

Responsibility

Responsibility refers to a duty or obligation you have towards someone to perform a task

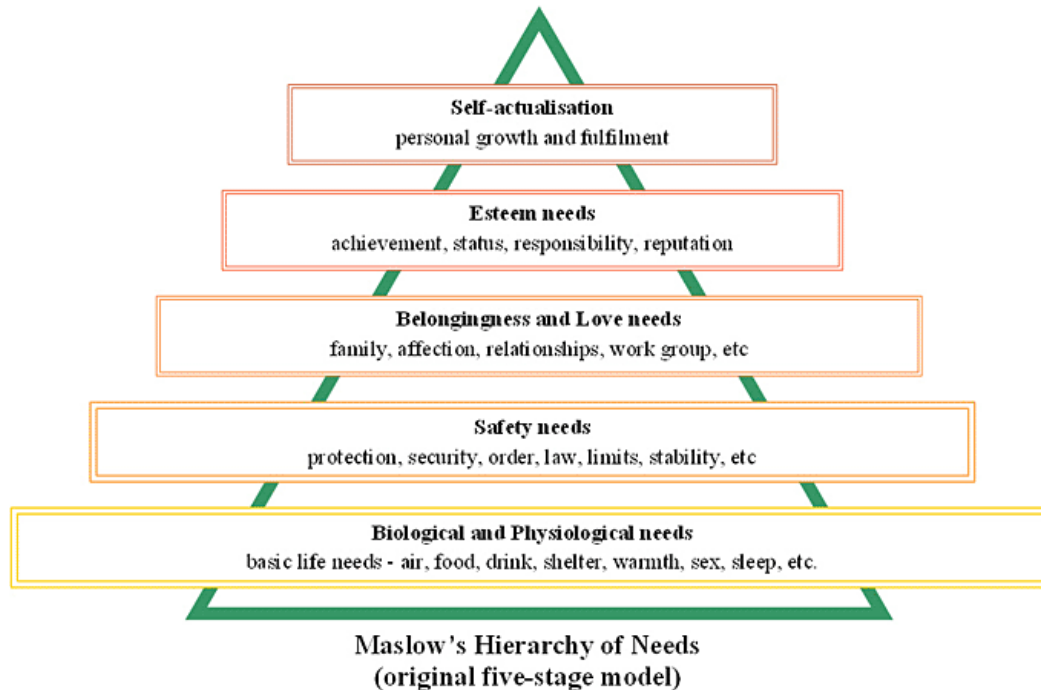
Responsibility arises from superior and subordinate relationship.

Responsibility cannot be delegated.

Responsibility flows in the upward direction.

It has got shorter life than authority.

[2 marks]

f) Explain Maslow's theory of motivation

[Diagram – 1 mark]

Maslow's hierarchy of needs

1. **Biological and Physiological needs** - air, food, drink, shelter, warmth, sex, sleep, etc.
2. **Safety needs** - protection from elements, security, order, law, limits, stability, etc.
3. **Belongingness and Love needs** - work group, family, affection, relationships, etc.
4. **Esteem needs** - self-esteem, achievement, mastery, independence, status, dominance, prestige, managerial responsibility, etc.
5. **Self-Actualization needs** - realizing personal potential, self-fulfillment, seeking personal growth and peak experiences.

[Explanation – 3 Marks]

Q3. Attempt any Four of the following**a) State causes of accidents in Industry**
Causes of Accidents

1. Technical Causes ----- Unsafe conditions

- Environmental factors

- Technical causes or unsafe conditions reflect deficiencies in plant, equipment, tools, materials handling system, general work environment, etc.

[2 marks]



2. Human Causes ----- Unsafe acts - Personal factors
- Human causes or unsafe acts by the person concerned are due to his ignorance or forgetfulness, carelessness, day- dreaming, etc.

[2 marks]

b) Explain workman compensations act in brief.

Ans :- The workman compensation act provides the guideline and legal aspect for the compensation to the concern workman for the injury occurred due to accident while working in / for organization. Workman compensation act provides legal support to the workman for their claims for compensation also specifies the conditions at which employer should be payable to the workman so that these guidelines reduces the quarrels between employer and employee.

The main objectives of the act are:-

- 1) To provide workman / their dependents compensation in case of accidents
- 2) To lay various amounts payable in case of accidents to workman
- 3) To clarify various terms such as dependent, nominee, minor etc.
- 4) To define partial and total disablement conditions
- 5) To specify various conditions for compensation

[4 Marks]

c) State objective and functions of financial management.

Objectives

- maintenance of liquid assets,
- profit maximization,
- building up reserves for growth and development
- To keep and increased financial wealth of the organization
- To decide investment policies
- To decide methods of financing
- To take dividend decisions
- To maintain the smooth flow of funds

[2 Marks for any 4 correct points]

Functions of financial management are listed below.

1. understanding & Estimation of capital requirements.
2. Determination of capital composition.
3. Choosing sources of funds.
4. Allocations of funds.
5. Investments of funds.
6. Disposal of surplus.
7. Management of cash.
8. Management of credit.
9. Financial controls.
10. Decisions of Investment, dividend and asset management

[2 Marks for any 4 correct point]



d) What are different type of capitals and source of finance?

Ans:-

Types of Capital:-

- 1) Fixed capital:- Associated with long term assets (Ex:- Land, Machine, Building, Tools, Equipment etc.)
- 2) Working capital:- Associated with short term assets (Cash, short term securities, inventories, accounts receivables etc.) Capital required to meet day-to-day needs and expenditure (Ex:- Purchase of raw material, Wages, Storage cost, Advertisement, Transportation , maintenance)

[2 Marks]

Sources of Finance:-

- 1) **Internal source:-** Retained equity earnings , Depreciation provisions , Deferred taxation, Personal funds
- 2) **External sources:-**
 - A) **Permanent / Long term source:-** Savings, Loans , Share capital , Debentures , corporate bonds , Public deposits, Taking in partners.
 - B) **Medium term:-** Bank loans, Hire purchase , Sale and lease back, Equipment leasing, Profit plow back
 - C) **Short Term:-** Credit facilities, Trade credit
 - D) **Specialist Earning:-** Industrial financial corporation, State financial corporation, Industrial development corporation, Insurance companies

[2 Marks]

e) Enlist principles of management by Henry Fayol.

Management Principles developed by Henry Fayol:

1. Division of work
2. Authority
3. Discipline
4. Unity of command
5. Unity of direction
6. Subordination of Individual interests to the general interests.
7. Remuneration.



8. Centralization.
9. Scalar Chain.
10. Order
11. Equity
12. Stability of tenure of personnel
13. Initiative
14. Esprit de Corps

[4 marks for any correct 8 points]

f) Explain the term , span of control in relation to management (4 marks)

Span of control refers to the number of Subordinates that report to an executive or number of supervisor that executive supervise directly. It depends on

- a) Condition of Business
- b) Size of Business
- c) Type of Product
- d) Capacity of Executive
- e) Quality & Skill of Worker & Executive.

Q.4 Attempt any FOUR of the following.

a) What are the different types of trainings? Explain any one.

Ans : - Types of Training:-

- 1) Induction Training
- 2) Skill Enhancement
- 3) Motivational training [2 Marks]

- 1) Induction Training:-** Induction training helps employee to become familiar to the system and hence increasing the efficiency of his own. This training helps to avoid major and costly mistakes by new people who don't know about performance techniques of new job. This induction training may be of different duration for different job. This induction training depends upon complexity of job, size of business, Level of position of the job etc.
- 2) Skill Enhancement Training:-** In this training type generally a on job training is given to the employee. This training is given to him to reduce the chances of mistakes done by him during actual functioning and also to enhance their present skills of work. The methods include demonstrations, coaching, job rotation etc.
- 3) Motivational Training:-** These trainings are given to increase moral of the employee and personal performance. To enhance communication skills in the employees and inspiring those to



do work efficiently this type of trainings are useful. It helps to boost team spirit and create better working relationship.[2 Marks for any correct explanation]

b) Explain Production Budget.

Ans: - Production budget shows quantities of products to be manufactured within a stipulated time period. Production budget is the forecast of the products to be manufactured. The raw data required for the production budget is taken from the sales budget and opening and closing stock adjustments in the organization. It is normally presented in either monthly or quarterly format.

The main factors affecting Production budget:-

- 1) Inventory policies 2) Sales forecast 3) Continuity of production 4) Plan capacity
- 4) Availability of resources 6) Manufacturing Lead time

Example:-

A. B. C. Co.						
PRODUCTION BUDGET						
For the year ending.....						
	Units of Output					
	Jan.	Feb.	Mar.	2nd Quarter	3rd Quarter	4th Quarter
1. Department-X -product-x	4,000	4,000	4,000	13,000	14,000	15,000
2. Department-Y -product-y	2,500	2,500	3,000	9,000	9,500	10,000
Total x+y	6,500	6,500	7,000	22,000	23,500	25,000

[4 Marks]

c) Which are the different types of taxes?

Ans :- Different types of Taxes:-

- 1) Taxes charged by Central Government:-
 - A) Income tax
 - B) Custom duties
 - C) Excise tax
 - D) Service tax
 - E) Gift tax
 - F) Wealth tax
- 2) Taxes by State Government:-
 - A) Sales tax



B) Stamp duty

C) State excise

D) Stamp duty

E) Entertainment tax

3) Local taxes:-

A) Octroi / LBT

B) Water supply charge

C) Environment tax

D) Properties [½ Mark each for any 8 correct Point]

d) What is balance sheet?

Ans: - It is a statement showing the financial status of the company at any given time. It is a statement of assets, liabilities and capital at a specified date. It prepared at least annually.

The main terms in the balance sheet includes Liabilities such as bank overdrafts, outstanding and expenses, rent, wages, salaries etc. and Assets such as Cash in hand, building, debtors, closing stock etc.

Balance sheet

Liabilities	Rs.	Assets	Rs.
Capital		Cash in hand	
Drawings (-)		Building	
Net profit (+)		Plant and machineries	
Bank overdraft		Debtors	
Creditor		Furniture	
Outstanding & Expenses		Closing stock	
		Prepaid insurance	

[4 Marks]

e) Explain ABC Analysis.

Ans: - ABC analysis:-

It is a technique which is used to classify the items in store into A, B and C class items based on demand of the stock. If the stock on hand of a particular item becomes less than or equal to its reorder level immediately an order is placed for its economical quantity. **[1 Mark]**

A: -Items are high valued items but are limited or few in numbers. They need careful and close inventory control.

B: -Items are medium valued items and their number lies between A and C. Such items need moderate control. They are more important than C-Items and also required careful storages and handling.

C: -Items are low valued but maximum number of items. These items do not need in any control rather controlling them is uneconomical. They are generally produced just before they finish. [2 Marks]

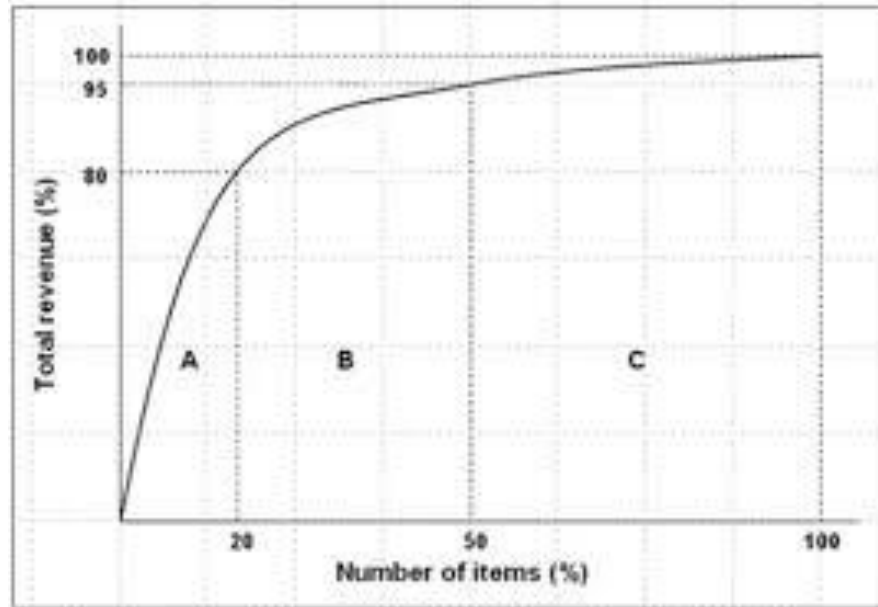
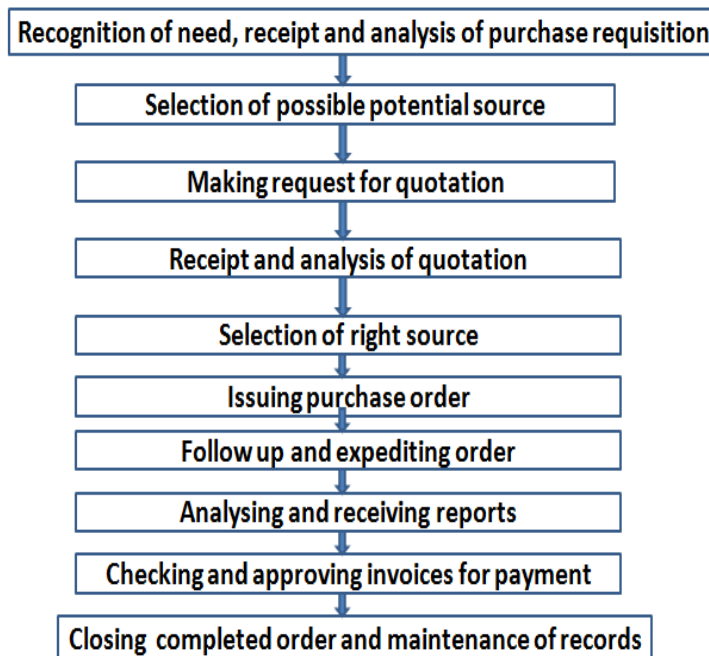


Fig. of ABC analysis [1 Mark]

f) What are the different steps in purchasing.

Ans:-



[4 Mark for correct 8 steps and its sequence]



Q. 5 Attempt any FOUR of the following.

a) Define

i) JIT ii) SAP

Ans: - i) JIT: - Just in time refers to the producing the part/component only when it is required. According to Just in time approach material is made available when it is demanded for further activities. Just in Time assures right material, at right place, at right time, at right cost, at right quantity. **[2 Marks]**

ii) SAP: - SAP stands for System Applications and Products. SAP is capable of integrating multiple business applications, with each application representing a specific business area. These applications update and process transactions in real time mode. It has the ability to be configured to meet the needs of the business. SAP material management is a module used for procurement, handling and inventory management. **[2 Marks]**

b) Why Service tax and Income tax are important.

Ans: - Importance of Service tax:- Service sector has shown phenomenon growth and hence providing one of the highest revenue generations. This tax plays predominant role in Indian economy. The ultimate aim of introducing service tax is to generate sufficient revenue from the service sector in order to reduce the degree of intensity of taxation on manufacturing and trade without forcing the government to compromise on the revenue needs. Service tax in India is progressing faster in terms of revenue growth, assessee base growth and even growth in service tax collection per assessee and per service. **[2 Marks]**

Importance of Income tax:- The main purpose of income tax is to finance to the government expenditure and to finance the public goods and services. To serve the economy by providing financial support to it. Income tax is deducted at source. Taxes pay for all the things that are done for the public, Security, defense, arts, education, health care, science, welfare, services, etc. **[2 Marks]**

C) Explain Economic Order Quantity.

Ans :- EOQ :- The Economic Order Quantity (EOQ) is the number of units that a company should add to inventory with each order to minimize the total costs of inventory such as holding costs, order costs, and shortage costs. **[1 Mark]**

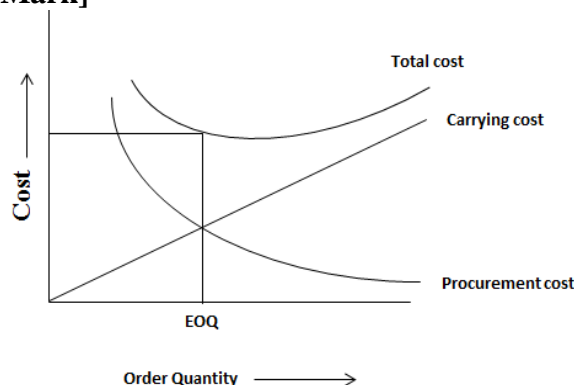


Figure: - Inventory Cost relationship



[2 Marks for correct graph]

$$EOQ = \sqrt{\frac{2 * U * P}{C * I}}$$

Where,

Q = Economic order quantity

U = Annual usage quantity

P = Procurement cost

C= Per unit cost

I = Inventory carrying cost

[1 Mark for correct formula]

d) Difference between CPM and PERT

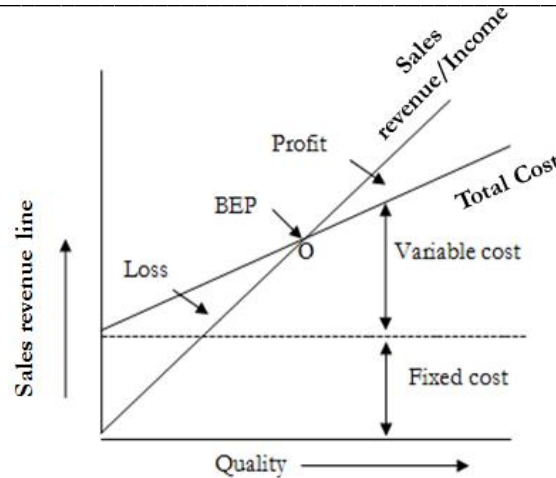
Ans:-

Sr. No.	CPM	PERT
1	CPM is a critical path method	PERT is a Program Evaluation and Review Technique
2	This technique is activity based	This technique is event based
3	CPM is a deterministic tool	PERT is a probabilistic tool
4	CPM does not considers uncertainties	PERT considers uncertainties
5	CPM allows explicit estimate of cost and time	PERT basically used for planning and controls time
6	CPM is best suited for routine and those projects where time and cost estimates can be accurately calculated	PERT is more suitable for R&D related projects where the project is performed for the first time and the estimate of duration are uncertain

[1 Mark for each correct any 4 Points]

e) Explain the concept of Break even analysis

Ans: - Break even analysis (CVP – Cost volume profit) is the major tool for profit planning. It provides a better perspective and graphical representation of the behavior of firms profit in relation to changes in input. These charts are useful to predict probable profit at various levels of output. [1 Mark]



[2 Marks]

Where, BEP = Breakeven point

V = Variable cost

P = Selling price / Unit (Total sales value)

[1 Mark for formula]

$$\text{BEP} = \frac{F}{1 - \frac{V}{P}}$$

f) Define

i) Quality ii) Quality circle

Ans: - i) Quality:- Quality is the relative term and it is generally used with reference to the end use of the product.

Definition:-

- 1) "Fitness for purpose"
- 2) "Quality is customer satisfaction achieved through product features and freedom from deficiencies"

Example:-

- 1) Gear used in sugarcane juice extracting machine may not have good S/F finishing, accuracy, tolerance as that of in Lathe machine but it works satisfactorily for which it is made [2 Mark]

ii) Quality Circle: - It is basically a small group of employees who volunteer to meet regularly to undertake work related projects and evolve recommendations to improve efficiency in the selected functional area. Members are not selected / nominated in quality circle. An ideal size of group is 8 to 10 members. [2 Marks]

Q6. Attempt any FOUR of the following.

a) Explain the following terms

- i) Kaizen ii) Six sigma

Ans:-



i) **Kaizen:-**

Kai = Change
Zen = for the better

Kaizen is a Japanese term that basically translated to continuous improvement or change to become good is a management concept originated by the Japanese in order to continuously effect incremental changes for the better, involving everybody within the organization from worker to managers. The implementation cycle includes Planning of activities to be done. Do the action plan for performing those activities after that check the possibilities of performing those and feasibility of the same. Act according to the action plan. This cycle is also called as PDCA cycle. **[2 Marks]**

- ii) **Six Sigma:** - Six Sigma seeks to improve the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability in manufacturing and business processes. It uses a set of quality management methods, including statistical methods, and creates a special infrastructure of people within the organization. Six Sigma is a statistical term signifying 3.4 defects per million opportunities. **[2 Marks]**

b) **Differentiate between fix and working capital**

Ans:-

Sr No.	Fixed Capital	Working Capital
1	It is associated with long term assets	It is associated with short term assets
2	Fix capital is used to buy fixed assets	Working capital is used to carry out day to day activities
3	Fix capital includes long term financial decisions	Working capital includes short term financial decisions
4	It is required for operational activities	It is required for trading activities
5	Example:- Land, Machine, Building, Tools, Equipment	Example:- Purchase of raw material, Wages, Storage cost, Advertisement, Transportation, maintenance

[1 Mark for any correct 4 Points]

c) **State meaning and objectives of inventory management.**

Ans: - Meaning: - Inventory management can be defined as the scientific method of finding out how much stock should be maintained in order to meet the production demands and be able to provide right type of material at right time in the right quantities and in right price. **[2 Marks]**

Objectives:-

- 1) To reduce inventory carrying costs
- 2) To eliminate possibilities of stock out
- 3) To smoothen the production flow



- 4) To produce material at right time
- 5) To get benefit of bulk buying

[2 Mark for any 4 objectives]

d) What is meant by project management?

Ans: - Project Management is about managing and organizing resources and people in such a way that a planned project is completed in the correct way and on time. The definition can include a wide range of products, from a small database to a huge power generation facility. Project Management is the application of skills, knowledge, and techniques to meet the objectives of a project and stakeholders' expectations. Project management is the process whereby individual oversees that projects within their environment run smoothly. It is the discipline of planning, organizing, securing and managing resources to bring about the successful completion of specific project goals and objectives.

Objectives:-

- 1) To manage and organize resources required for projects
- 2) To plan the project for successful completion in correct way and on time
- 3) To achieve desired goals
- 4) To satisfy customers expectations

[4 Marks for correct explanation]

e) What is enterprise resource planning? State its importance in material handling.

Ans:- Enterprise resource planning:- Enterprise resource planning (ERP) is a business management software—usually a suite of integrated applications—that a company can use to collect, store, manage and interpret data from many business activities, including:

- Product planning, cost
- Manufacturing or service delivery
- Marketing and sales
- Inventory management
- Shipping and payment

ERP came to represent a larger whole that reflects the evolution of application integration beyond manufacturing. [2 Marks]

Importance in Material Handling:-

- An integrated system that operates in (or near) real time without relying on periodic updates can be useful for material handling purpose
- A common database that supports all applications of material handling
- A consistent look and feel across modules for efficient use of material handling (MH) devices.
- Integration of various MH devices can be possible.

[2 Mark for any 4 correct importance]



f) What are different leadership styles and types? Enlist

Ans : - Leadership Styles and Types:-

- 1) Autocratic Leadership: - It relies on threat and punishment to influence on people.
 - 2) Bureaucratic Leadership: - In this leader wants to do everything according to the policies or procedure.
 - 3) Democratic Leadership: - It encourages employees to be a part of the decision making.
 - 4) Laissez faire Leadership :- It provides very little or no direction to employees
- [1 Mark each for Enlisting styles and types]**
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-