# Answer Key/Solutions VTU EXAM SOLUTION DEC.2019/JAN.2020

## Management and Entrepreneurship – 17EE51 (Section - A&B)

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Questi on #		Description	
_		What is mean by Management? Discuss the various characteristics of Management. (07 M)  Meaning:  Management is the process of designing and maintaining an environment in which individuals working together in groups efficiently accomplish selected aims.  Management is the "art of getting done through others and with formally organized groups" by Harold Koontz  The most important characteristics may be listed as follows:  Characteristic # 1. Management is Intangible:  As has been pointed out by Terry, management is intangible. It cannot be seen. It is an unseen force. However, its presence can be felt by the results of its efforts in the form of production, sales and profits.  Characteristic # 2. Managements Goal-Oriented:  Management seeks to achieve goals. These goals may be economic or non-economic. In a business organization, the primary goal is to produce and distribute goods and services in order to earn profit. In a service organization, the goal might be customer service (hospitals, educational institutions, etc.).	
1	a)	Characteristic # 3. Management is Universal:  Management is an all-pervasive activity. The basic principles of management are applicable in business as well as in other organizations. These principles, however, need careful application depending on situational demands.  Characteristic # 4. Management is a Social Process:  According to Newman, management is a social process because it deals with people first. To make the best use of human efforts, managers have to create close cooperation among employees in an organization. They have to use resources for the benefit of society as a whole. They have to look after the interests of employees, shareholders, customers, investors, and community.  Characteristic # 5. Management is a Group Activity:  Management is concerned with getting things done through people. People join groups in order to achieve results collectively Management helps people in realizing their individual as well as group goals in a coordinated manner.	
		Characteristic # 6. Management is a System of Authority:  A manager is supposed to get things done, rather than doing things himself, by using authority. Authority is the right to give orders and the power to obtain obedience from subordinates.  Characteristic # 7. Management is an Activity:  Management is a distinct activity (like playing, teaching, studying). It can be studied, knowledge about it obtained, and skill in its applications acquired.  Characteristic # 8. Management is Dynamic:  Management is a dynamic and growth-oriented function. It tries to visualize problems before they turn into emergencies and takes suitable steps. It tries to adapt itself to the environmental changes quickly It proposes to take actions to make the desired results to come to pass. According to Drucker, 'Managers do not wait for the future; they make the future'.	
	<b>b</b> )	Explain various roles played by the Manager. (07 M) Mintzberg's Management Roles The Roles Mintzberg published his Ten Management Roles in his book, "Mintzberg on Management: Inside our Strange World of Organizations," in 1990.	

## **Interpersonal Category**

The managerial roles in this category involve **providing** information and ideas.

- 1. **Figurehead** As a manager, you have social, ceremonial and legal responsibilities. You're expected to be a source of inspiration. People look up to you as a person with authority, and as a figurehead.
- 2. Leader This is where you provide leadership for your team, your department or perhaps your entire organization; and it's where you manage the performance and responsibilities of everyone in the group.
- **3.** Liaison Managers must communicate with internal and external contacts. You need to be able to network effectively on behalf of your organization.

## **Informational Category**

The managerial roles in this category involve **processing** information.

- **4. Monitor** In this role, you regularly seek out information related to your organization and industry, looking for relevant changes in the environment. You also monitor your team, in terms of both their productivity, and their well-being.
- **5. Disseminator** This is where you communicate potentially useful information to your colleagues and your team.
- **6. Spokesperson** Managers represent and speak for their organization. In this role, you're responsible for transmitting information about your organization and its goals to the people outside it.

## **Decisional Category**

The managerial roles in this category involve **using** information.

- **7. Entrepreneur** As a manager, you create and control change within the organization. This means solving problems, generating new ideas, and implementing them.
- **8. Disturbance Handler** When an organization or team hits an unexpected roadblock, it's the manager who must take charge. You also need to help mediate disputes within it.
- **9. Resource Allocator** You'll also need to determine where organizational resources are best applied. This involves allocating funding, as well as assigning staff and other organizational resources.

**Negotiator** – You may be needed to take part in, and direct, important negotiations within your team, department, or organization.

## Discuss whether management is art, science or profession. (06 M)

The meaning of management has been different for different people. Some consider it as a SCIENCE because of its proven and experimented principles, for some it is an ART because of the practice it requires in accomplishing it while others consider it to be just a PROFESSION and a source of income.

Well, in reality, Management is a combination of this Trivia. Management is an ART, a Science and a PROFESSION,

## Management as an ART

Ability to apply knowledge & skill in order to attain the desired results is defined as ART. It is a personalized application of basic theoretical principles for achieving best possible results. For example, an ability of a tailor to shape a piece of cloth into a well-stitched dress is an art. Similarly, a **sculpturist** with his/her art can transform a rock piece into a beautiful idol.

The essential features of art include:

1. Creativity

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- 2. Practical/Industry Knowledge
- 3. Personal skills
- 4. Ability to improve through constant practice
- 5. Result oriented approach

Since management is concerned with implementing the knowledge, skills, principles, and theories of management to attaining the desired goals and to solve certain management problem in an organization, management is considered as an

## Management as a SCIENCE

"Science is a systematic body of knowledge pertaining to a specific field of study that contains general facts which explains a phenomenon." It ascertains relationship between the cause and effect between two or more variables and emphasizes the principles which govern their relationship. Scientific methods of observation and verification through testing lead to the development of these principles.

The essential features of Science are:

- 1. Universally Acceptable Principles.
- 2. Observation and Experimentation.
- 3. Established Cause and Effect Relationship.
- 4. Verified and Predictable validity.

Management is a social and behavioral science because it deals with the behaviors of human beings that is ever

changing and cannot be predicted precisely.

For example, while a tailor can shape a piece of cloth into a dress, he/she has to follow some predefined principles. Thinking of the design is the art of the tailor however, to use that art is science based on various principles. And these principles are accepted and applied universally. So, management is a Science.

The ancient saying, "Manager are Born" has been discarded in favor of "Managers are Made". It has been remarked aptly that management is the oldest of art and youngest of science, which is perfectly true.

#### Management as a PROFESSION

**Profession** is an occupation or a job done by any individual, who is well aware of delivering personal services to the people with expertise. To practice a profession, an individual must have acquired certain academic qualifications and training in the related field. In addition, a professional is required to follow the ethical code of conduct of an organization.

The essential features of profession are:

- 1. Ability to render personal service with expertise and specialization.
- 2. Formal education and training from a recognized institution.
- 3. Code of conduct
- 4. Representative Association.

For instance, to become a financial manager, an individual should be a Graduate in financial management as his/her major field of study from a recognized university. Similarly, in order to become a HR manager, one must have a Diploma with Human Resource Management.

So, Management is an Art, Science and Profession.

## Discuss hierarchy of plans with examples. (06 M)

## Hierarchical Levels of Planning

The hierarchy of public activity planning and regional development planning is by and large based on a functional division of labor between the different levels. At any level types of plans physical planning shares more extensively similarities both in substantial contents and procedures. The practical implication is that there will be some kinds of overlapping between planning levels, at least when it comes to plans under local planning authority. However, some overlapping might occur in the division between planning at the central state tire as well as regional and local levels. There are number of plans available to direct the development in an urban or rural areas. The levels at which they operate is different & similarly the nature and details provided in each type is different. Hierarchy and Types of Plans are explained below

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b)



## What are the different steps involved in planning? Explain. (08 M)

Step 1. Perception of Opportunities: Perception of opportunities is not strictly a part of the planning process. But this awareness of opportunities in the external environment as well as within the organization is the real starting point for planning. It is important to take a preliminary look at possible future opportunities and see them clearly and completely.

Step 2. Establishing Objectives: This is the second step in the planning process. The major organizational and unit objectives are set in this stage. This is to be done for the long term as well as for the short range. Objective specify the expected results and indicate the end points of what is to be done, where the primary emphasis is to be placed and what is to be accomplished by the various types of plans.

Step 3. Planning Premises: After determination of organizational objectives, the next step is establishing planning premises that is the conditions under which planning activities will be undertaken. Planning premises are planning assumptions the expected environmental and internal conditions.

Thus planning premises are external and internal. External premises include total factors in task environment like political, social, technological, competitors, plans and actions, government policies. Internal factors include organization's policies, resources of various types, and the ability of the organization to withstand the environmental pressure. The plans are formulated in the light of both external and internal factors.

Step 4. Identification of Alternatives: The fourth step in planning is to identify the alternatives. Various alternatives can be identified based on the organizational objectives and planning premises. The concept of various alternatives

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suggests that a particular objective can be achieved through various actions.

**Step 5. Evaluation of Alternatives:** The various alternative course of action should be analyzed in the light of premises and goals. There are various techniques available to evaluate alternatives. The evaluation is to be done in the light of various factors. Example, cash inflow and outflow, risks, limited resources, expected pay back etc., the alternatives should give us the best chance of meeting our goals at the lowest cost and highest profit.

- **Step 6. Choice of Alternative Plans:** This is the real point of decision-making. An analysis and evaluation of alternative courses will disclose that two or more advisable and beneficial. The fit one is selected.
- **Step 7. Formulation of Supporting Plan:** After formulating the basic plan, various plan is derived so as to support the main plan. In an organization there can be various derivative plans like planning for buying equipment, buying raw materials, recruiting and training personal, developing new product etc. These derivative plans are formulated out of the basic or main plan and almost invariably required to support the basic plan.
- **Step 8. Establishing Sequence of Activities:** After formulating basic and derivative plans, the sequence of activities is determined so those plans are put into action. After decisions are made and plans are set, budgets for various periods and divisions can be prepared to give plans more concrete meaning for implementation.

## What is decision making? Classify the different types of decisions. (06 M)

According to the Oxford Advanced Learner's Dictionary the term decision making means - the process of deciding about something important, especially in a group of people or in an organization.

Trewatha & Newport defines decision making process as follows:, "Decision-making involves the selection of a course of action from among two or more possible alternatives in order to arrive at a solution for a given problem"

## **Types of Decision Making**

## 1. Tactical and Strategic Decisions

Tactical decisions are those which a manager makes over and over again adhering to certain established rules, policies and procedures. They are of repetitive nature and related to general functioning. Authority for taking tactical decisions is usually delegated to lower levels in the organization.

Strategic decisions on the other hand are relatively more difficult. They influence the future of the business and involve the entire organization. Decisions pertaining to objective of the business, capital expenditure, plant layout, production etc., are examples of strategic decisions.

## 2. Programmed and Non-programmed Decisions

Prof. Herbert Simon (June 15, 1916 - February 9, 2001), an American economist and psychologist, has used computer terminology in classifying business decisions. These decisions are of a routine and repetitive nature. The programmed decisions are basically of a routine type for which systematic procedures have been devised so that the problem may not be treated as a unique case each time it crops up.

The non-programmed decisions are complex and deserve a specific treatment. In the above example, if all the professors in a department stop their teaching work the problem cannot be solved by set procedural rules. It becomes a problem which requires a thorough study of the causes of such a situation and after analysing all factors a solution can be found through problem solving process.

#### 3. Basic and Routine Decisions

Prof. Katona has classified decisions as basic and routine. Basic decision are those which require a good deal of deliberation and are of crucial importance. These decisions require the formulation of new norms through deliberate thought provoking process. Examples of basic decisions are plant location, product diversification, selecting channels of distribution etc.

Routine decisions are of repetitive nature and hence, require relatively little consideration. It may be seen that basic decisions generally relate to strategic aspects, while routine decisions are related to tactical aspects of a organization.

## 4. Organizational and Personal Decisions

Organizational decisions are those which an executive takes in his official capacity and which can be delegated to others. On the other hand, personal decisions are those which an executive takes in his individual capacity but not as a member of organization.

## 5. Off-the-Cuff and Planned Decisions

Off-the-cuff decisions involve "shooting from the hip". These decisions can be taken easily and may be directed towards the purposes of the enterprise. On the other hand, planned decisions are linked to the objectives of organization. They are based on facts and involve the scientific process in problem solving.

#### **6. Policy and Operating Decisions**

Policy decisions are those which are taken by top management and which are of a fundamental character affecting the entire business. Operating decisions are those which are taken by lower management for the purpose of executing policy decisions. Operating decisions relate mostly to the decision marker's own work and behavior while policy decisions influence work or behavior pattern of subordinates.

## 7. Policy, Administrative and Executive Decisions

Ernest Dale (born in Hamburg, Germany and died at the age of 79) has classified decisions in business organization as under.

- (a) Policy decisions,
- (b) Administrative decisions and
- (c) Executive decisions.

**Policy decisions** are taken by top management or administration of an organization. They relate to major issues and policies such as the nature of the financial structure, marketing policies, outline of organization structure.

**Administrative decisions** are made by middle management and are less important than policy decisions. According to Ernest Dale the size of the advertising budget is a policy decision but selection of media would be an example of

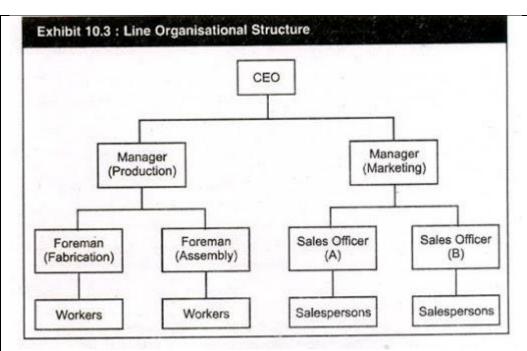
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administrative decision. Executive decisions are those which are made at the point where the work is carried out. Distinguishing between these three types of decisions Dale writes, "policy decisions set forth goals and general courses of action, administrative decisions determine the means to be used and executive decisions are those made on a day-to-day basis as particular cases come up". What are the various principles of management? (08 M) 14 principles of Management are statements that are based on a fundamental truth. These principles of management serve as a guideline for decision-making and management actions. They are drawn up by means of observations and analyses of events that managers encounter in practice. Henri Fayol was able to synthesize 14 principles of management after years of study. 1) Division of work (or Labor) 2) Authority & Responsibility 3) Discipline 4) Unity of command a 5) Unity of direction 6) Subordination of individual to general interest 7) Remuneration 8) Centralization of authority 9) Scalar chain or Line of authority 10) Order 11) Equity of treatment 12) Stability of workers 13) Initiative 14) Team spirit (Espirit de crops) Explain the steps in selection process. (06 M) Selection Process and Steps: As we have discussed that Selection is very important for any organization for minimizing the losses and maximizing the profits. Hence the selection procedure should be perfect. A good selection process should comprise the following steps – 3 Employment Interview - Employment interview is a process in which one-on-one session in conducted with the applicant to know a candidate better. It helps the interviewer to discover the inner qualities of the applicant and helps in taking a right decision. Checking References - Reference checking is a process of verifying the applicant's qualifications and experiences with the references provided by him. These reference checks help the interviewer understand the conduct, the attitude, and the behavior of the candidate as an individual and also as a professional. **Medical Examination** – Medical examination is a process, in which the physical and the mental fitness of the applicants are checked to ensure that the candidates are capable of performing a job or not. This examination helps the organization in choosing the right candidates who are physically and mentally fit. Final Selection – The final selection is the final process which proves that the applicant has qualified in all the rounds of the selection process and will be issued an appointment letter. A selection process with the above steps will help any organization in choosing and selecting the right candidates for the right job. What are the various types of organizations? Explain line organization. (06 M) 5 Main Types of Organisational Structure The types are: 1. Line Organization 2. Line and Staff Organization 3. Functional Organization 4. Project Organization 5. Matrix Organization Type # 1. Line Organisation: Line organisation is the simplest and oldest form of organisation structure. It is called as military or departmental or scalar type of organization. Under this system, authority flows directly and vertically from the top of the managerial hierarchy 'down to different levels of managers and subordinates and down to the operative level of workers.

Line organisation clearly identifies authority, responsibility and accountability at each level. The personnel in Line

organization are directly involved in achieving the objectives of the organization.

The line organisation structure is given below:



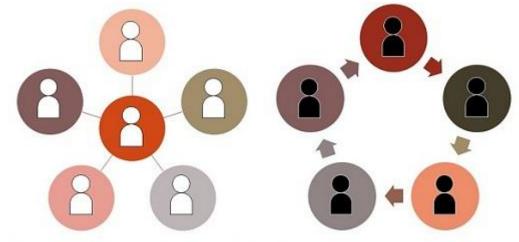
## **Advantages of Line Organization:**

- a. The line organization structure is very simple to understand and simple to operate.
- b. Communication is fast and easy and feedback can be acted upon faster.
- c. Responsibility is fixed and unified at each level and authority and accountability are clear-cut, hence each individual knows to whom he is responsible and who is or in truth responsible to him.
- d. Since it is especially useful when the company is small in size, it provides for greater control and discipline in the organization.
- e. It makes rapid decisions and effective coordination possible. So it is economic and effective.
- f. The people in line type of organization get to know each other better and tend to feel close to each other.
- g. The system is capable of adjusting itself to changing conditions for the simple reason that each executive has sole responsibility in his own sphere.

## **Disadvantages of Line Organization:**

- a. It is a rigid and inflexible form of organization.
- b. There is a tendency for line authority to become dictatorial.
- c. It overloads the executive with pressing activities so that long-range planning and policy formulation are often neglected.,
- d. There is no provision for specialists and specialization, which is essential for growth and optimisation.
- e. Different departments may be much interested in their self-interests, rather than overall organizational interests and welfare.

## Distinguish between centralization and decentralization. (04 M)



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## CENTRALIZATION VS DECENTRALIZATION Centralization and

Decentralization are the two types of structures, that can be found in the organization, government, management and even in purchasing. Centralization of authority means the power of planning and decision making are exclusively in the hands of top management. It alludes to the concentration of all the powers at the apex level.

BASIS FOR COMPARISON	CENTRALIZATION	DECENTRALIZATION
Meaning	The retention of powers and authority with respect to planning and decisions, with the top management, is known as Centralization.	The dissemination of authority, responsibility and accountability to the various management levels, is known as Decentralization.
Involves	Systematic and consistent reservation of authority.	Systematic dispersal of authority.
Communication Flow	Vertical	Open and Free
Decision Making	Slow	Comparatively faster
Advantage	Proper coordination and Leadership	Sharing of burden and responsibility
Power of decision making	Lies with the top management.	Multiple persons have the power of decision making.
Implemented when	Inadequate control over the organization	Considerable control over the organization
Best suited for	Small sized organization	Large sized organization

## Explain Maslow's and Herzberg's theory of motivation. (10 M)



## Maslow's Hierarchy of Needs Theory

One of the most popular needs theories is **Abraham Maslow's hierarchy of needs theory**. Maslow proposed that motivation is the result of a person's attempt at fulfilling five basic needs: physiological, safety, social, esteem and self-actualization. According to Maslow, these needs can create internal pressures that can influence a person's behavior.

**Physiological needs** are those needs required for human survival such as air, food, water, shelter, clothing and sleep. As a manager, you can account for physiological needs of your employees by providing comfortable working conditions, reasonable work hours and the necessary breaks to use the bathroom and eat and/or drink.

**Safety needs** include those needs that provide a person with a sense of security and well-being. Personal security, financial security, good health and protection from accidents, harm and their adverse affects are all included in safety needs. As a manager, you can account for the safety needs of your employees by providing <u>safe working conditions</u>, secure compensation (such as a salary) and job security, which is especially important in a bad economy.

**Social needs**, also called **love and belonging**, refer to the need to feel a sense of belonging and acceptance. Social needs are important to humans so that they do not feel alone, isolated and depressed. Friendships, family and intimacy all work to fulfill social needs. As a manager, you can account for the social needs of your employees by making sure each of your employees know one another, encouraging cooperative teamwork, being an accessible and kind supervisor and promoting a good work-life balance.

**Esteem needs** refer to the need for self-esteem and respect, with self-respect being slightly more important than gaining respect and admiration from others. As a manager, you can account for the esteem needs of your employees by offering praise and recognition when the employee does well, and offering promotions and additional responsibility to reflect your belief that they are a valued employee.

**Self-actualization needs** describe a person's need to reach his or her full potential. The need to become what one is capable of is something that is highly personal. While I might have the need to be a good parent, you might have the need to hold an executive-level position within your organization. Because this need is individualized, as a manager, you can account for this need by providing challenging work, inviting employees to participate in decision-making and giving them flexibility and autonomy in their jobs.

In 1959, Frederick Herzberg, a behavioural scientist proposed a two-factor theory or the motivator-hygiene theory. According to Herzberg, there are some job factors that result in satisfaction while there are other job factors that prevent dissatisfaction. According to Herzberg, the opposite of "Satisfaction" is "No satisfaction" and the opposite of "Dissatisfaction" is "No Dissatisfaction".

Herzberg classified these job factors into two categories-

- a. **Hygiene factors-** Hygiene factors are those job factors which are essential for existence of motivation at workplace. These do not lead to positive satisfaction for long-term. But if these factors are absent / if these factors are non-existant at workplace, then they lead to dissatisfaction. In other words, hygiene factors are those factors which when adequate/reasonable in a job, pacify the employees and do not make them dissatisfied. These factors are extrinsic to work. Hygiene factors are also called as **dissatisfiers or maintenance factors** as they are required to avoid dissatisfaction. These factors describe the job environment/scenario. The hygiene factors symbolized the physiological needs which the individuals wanted and expected to be fulfilled. Hygiene factors include:
  - Pay The pay or salary structure should be appropriate and reasonable. It must be equal and competitive to those in the same industry in the same domain.
  - Company Policies and administrative policies The company policies should not be too rigid.
     They should be fair and clear. It should include flexible working hours, dress code, breaks, vacation, etc.
  - Fringe benefits The employees should be offered health care plans (mediclaim), benefits for the family members, employee help programmes, etc.
  - Physical Working conditions The working conditions should be safe, clean and hygienic. The work equipments should be updated and well-maintained.
  - Status The employees' status within the organization should be familiar and retained.
  - Interpersonal relations The relationship of the employees with his peers, superiors and subordinates should be appropriate and acceptable. There should be no conflict or humiliation element present.
  - Job Security The organization must provide job security to the employees.
- b. **Motivational factors-** According to Herzberg, the hygiene factors cannot be regarded as motivators. The motivational factors yield positive satisfaction. These factors are inherent to work. These factors motivate the employees for a superior performance. These factors are called satisfiers. These are factors involved in performing the job. Employees find these factors intrinsically rewarding. The motivators symbolized the psychological needs that were perceived as an additional benefit. Motivational factors include:
  - Recognition The employees should be praised and recognized for their accomplishments by the managers.
  - Sense of achievement The employees must have a sense of achievement. This depends on the job. There must be a fruit of some sort in the job.
  - Growth and promotional opportunities There must be growth and advancement opportunities in an organization to motivate the employees to perform well.
  - Responsibility The employees must hold themselves responsible for the work. The managers should give them ownership of the work. They should minimize control but retain accountability.
  - Meaningfulness of the work The work itself should be meaningful, interesting and challenging for the employee to perform and to get motivated.

## **Implications of Two-Factor Theory**

The Two-Factor theory implies that the managers must stress upon guaranteeing the adequacy of the hygiene factors to avoid employee dissatisfaction. Also, the managers must make sure that the work is stimulating and rewarding so that the employees are motivated to work and perform harder and better. This theory emphasize upon job-enrichment so as to motivate the employees. The job must utilize the employee's skills and competencies to the maximum. Focusing on the motivational factors can improve work-quality.

## Write notes on barriers of communication. (06 M)

There are many reasons why interpersonal communications may fail. In many communications, the message (what is said) may not be received exactly the way the sender intended. It is, therefore, important that the communicator seeks feedback to check that their message is clearly understood.

The skills of Active Listening, Clarification and Reflection may help but the skilled communicator also needs to be aware of the barriers to effective communication and how to avoid or overcome them.

There are many barriers to communication and these may occur at any stage in the communication process. Barriers may lead to your message becoming distorted and you therefore risk wasting both time and/or money by causing confusion and misunderstanding.

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Effective communication involves overcoming these barriers and conveying a clear and concise message.

The use of jargon. Over-complicated, unfamiliar and/or technical terms.

**Emotional barriers and taboos.** Some people may find it difficult to express their emotions and some topics may be completely 'off-limits' or taboo. Taboo or difficult topics may include, but are not limited to, politics, religion, disabilities (mental and physical), sexuality and sex, racism and any opinion that may be seen as unpopular.

Lack of attention, interest, distractions, or irrelevance to the receiver.

Differences in perception and viewpoint.

Physical disabilities such as hearing problems or speech difficulties.

**Physical barriers to non-verbal communication.** Not being able to see the non-verbal cues, gestures, posture and general body language can make communication less effective. Phone calls, text messages and other communication methods that rely on technology are often less effective than face-to-face communication.

Language differences and the difficulty in understanding unfamiliar accents.

**Expectations and prejudices which may lead to false assumptions or stereotyping.** People often hear what they expect to hear rather than what is actually said and jump to incorrect conclusions. Our page **The Ladder of Inference** explains this in more detail.

**Cultural differences.** The norms of social interaction vary greatly in different cultures, as do the way in which emotions are expressed. For example, the concept of personal space varies between cultures and between different social settings.

#### Other barriers to communication are,

- Badly expressed message
- Faulty organization
- Distrust of communicator
- Restricting communication
- Poor retention
- · Different backgrounds
- In-group language
- Inattention
- Physical barriers
- Poor understanding

## Who are entrepreneurs? What are their qualities? Explain any two types of qualities. (07 M)

An entrepreneur is the founder of the enterprise who identifies opportunities, assembles skilled manpower and necessary resources for the operation of the enterprise, attracts persons and financial Institutions and takes psychological responsibility for managing the enterprise successfully.

The word 'Entrepreneur' is derived from the French word "Entreprendre" means, "to undertake."

Entrepreneurs are action-oriented highly motivated individuals who take risks to achieve goals.

An entrepreneur is a person who is action-oriented and highly motivated to take a risk and to achieve such a goal dot brings about a change in the process of generating goods or services or re-initiates progress in the advent of creating new organizations.

Therefore, experts have nine characteristics for the entrepreneur from different conceptual viewpoints.

## 1. Entrepreneur is an agent

An entrepreneur is perceived as an economic agent who assembles materials for producing goods at a cost that ensures profits and re-accumulation of capital.

He is also understood as a change agent who brings about changes in the structure and formation of the organization, market and the arena of goods and services.

## 2. Entrepreneur is a risk taker

Many experts – old and new, have emphasized this characteristic. Back I955, Redlich pointed out that an entrepreneur is a person who identifies the nature of risk and takes a decision.

Later on, Burch, Meredith and other experts have agreed that entrepreneur is a risk taker while undertaking a venture.

## 3. Entrepreneur is a profit maker

An entrepreneur is an individual who establishes and manages the business for the principal purpose of profit and growth.

## 4. Entrepreneur is an achievement motivator

David C. McClelland has initiated this concept of the entrepreneur by calling him "as per sun with a strong desire for achievement."

Later on, Meredith and others have expressed the same concept while they termed "entrepreneurs are action-oriented, highly' motivated individuals."

Therefore, entrepreneurs have to have a deep-rooted need for achieving their goals.

## What are the various stages in entrepreneurial process? Discuss. (09 M)

The steps involved in the entrepreneurial process are explained as follows:

## Step 1. Deciding to Become an Entrepreneur:

It refers to the first step of the entrepreneurial process in which an individual decides to start his/her own enterprise.

## The desire to become an entrepreneur may be triggered by any on the following factors:

- i. Arising of an innovative idea backed up the ability to start a business
- ii. Inheriting wealth and skills to establish an enterprise
- iii. Prevailing problems in current jobs
- iv. Willing to become own boss

**a**)

b)

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v. Pursuing own ideas

## Step 2. Identifying and Evaluating the Opportunity:

It refers to the second stage of the entrepreneurial process. In this process, the entrepreneur recognizes potential opportunities. Sometimes, the set mechanisms, such as entrepreneurship development training programs and government policies to promote entrepreneurs, help potential entrepreneurs in identifying the opportunities.

The entrepreneurs keep on scanning the environment to gather useful information for identifying opportunity in the form of a potential product or service. Further, they evaluate and screen the identified opportunity. The evaluation of the identified opportunity helps entrepreneurs in assessing whether the opportunity is realistic and the returns of the opportunity are as per the resources required.

## Step 3. Developing a Business Plan:

This step involves developing a successful business plan to exploit the identified opportunity. Developing a business plan involves setting goals, standards, methods, and techniques of achieving those set goals. A well drafted business plan serves as a road map to the entrepreneur to guide and monitor his/her activities towards the set goals.

## Step 4. Determining the Required Resources:

It involves determining the resources required to meet the identified opportunity. In this step, the entrepreneur assesses the available resources and the resources that are essential to convert the identified opportunity into a reality. The entrepreneur needs to be careful while determining the amount and quality of resources required as insufficient or inappropriate resources can hamper the success of the opportunity. Next, he/she needs to acquire the resources required in a timely manner, while focusing on right quality and quantity.

## Step 5. Converting the Idea to an Enterprise:

It refers to the most important step of the entrepreneurial process in which the entrepreneur develops his/her own enterprise to execute the identified opportunity. In this step, the entrepreneur brings the set business plan into practice. He/she arranges the resources that are identified in the previous step. Moreover, he/she takes into consideration all internal and external environmental forces, while developing the enterprise.

## Step 6. Managing and Growing the Enterprise:

It refers to the final stage of the entrepreneurial process. Once the resources are acquired, the entrepreneur uses them efficiently to carry out the business plan successfully. He/she also strives to identify and examine operational problems, and solve them.

Difference between Intrapreneur and Entrepreneur. (04 M)

Difference between intrapreneur and Entrepreneur. (04 141)					
Criteria	Entrepreneur	Intrapreneur			
Dependency	Independent in his operations	Dependent on the entrepreneur/owner			
Fund raising	Raise funds required for the enterprise	Funds are not raised			
Risk taking	Fully bears the risk involved in the business	Does not fully bear the risk involved in the business			
Operation	Operates from outside	Operates within the organization			
Primary motive	Goal oriented, self-reliant and self-motivated	Access to corporate resources and also responds to corporate rewards and recognition			

## Discuss the social responsibility of business towards different interest groups. (08 M)

## Corporate social Responsibility towards different interest groups

The business organizations generally interact with various interest groups such as the owners, investors, employees, suppliers, competitors, customers, government, and society. In each and every business activity these interest groups are affected directly or indirectly and they are also called as stakeholders. Sometimes the responsibility towards the stakeholders is also called as Stakeholder's Corporate Social Responsibility.

## Corporate social Responsibility towards Owners

Owners are the persons who own the business and they are responsible for the profit or losses and they contribute the capital and bear the risks. The primary responsibility of the business towards its owners is to,

- Should run the business efficiently
- Proper utilization of capital and resources
- Timely repayment of on capital invested

## Corporate social responsibility towards Investors

Investors provide the capital by way of investment, it is in the form of debentures, deposits and bonds etc. without investors companies may not be run successfully. The investors included in this category are banks, public and financial institutions. The responsibilities of the business towards its investors are,

- Providing assurance to their investment
- Paying interests timely to the investors
- Giving important updates to the investors

6 a)

c)

• Repayment of principle amount timely

## Corporate social responsibility towards Employees

Business needs workers or employees to work for the organization they put their efforts for the growth of the firm. It is the basic responsibility of the organization to take care of the interest of the employees and to fulfill their needs. Employee satisfaction leads to the achievement of the organizational goals. The responsibilities of the organization towards its employees or workers include, wages and salaries should be paid timely and regularly

- Providing proper welfare amenities and working conditions
- Providing better opportunities for the career prospects
- Providing Job security and social security
- Providing facilities like pension, provident fund, retirement benefits, and group insurance, etc
- Providing housing, canteen, transport, and crèches etc
- Identifying and fulfilling training and developmental needs

## Corporate social responsibility towards Suppliers

Suppliers are the persons who supply semi finished goods, finished goods, raw materials and other items required by the firms. Market demand conditions can only be fulfilled on the basis of the supply of the raw materials. So the suppliers are the part of the success of the business. Managers should always notice the importance of the suppliers. Certain suppliers are called as distributors because they supply finished products to the consumers. The responsibilities of business towards these suppliers are,

- Giving regular orders to purchase goods
- Dealing with fair terms and conditions
- Maintaining reasonable credit period
- Dues should be paid timely

## Corporate social responsibilities towards Customers

Business can only be survived with the support of customers. The success of the business completely depends on the customer satisfaction and customer loyalty. Brand image comes from these two factors, so being responsible towards the customers not only benefits the customers but it maximizes the revenues and makes possible to get the market empire. The responsibility of business towards customers is,

- Products and services must fulfill the needs of the customers
- Qualitative Products and services must be delivered
- Regularity in supply of goods and services must be maintained
- Prices of the goods and services should be fixed reasonable and affordable
- Procedure, advantages and disadvantages of the product and the use of the products must be informed to the customers
- Organizations must provide after sales service
- Grievances of the customers must be settled quickly
- Fewer quality services, under weighing the product and adulteration must be avoided

## Corporate social responsibility towards Competitors

Competitors always help the business in becoming more innovative and dynamic. But it is not that much easy to face a severe competition. Firms always try to overcome the competition by giving discounts, by using various advertisement strategies, and so on. To become better than their competitor's firms sometimes may follow unfair practices like giving sales commissions to the agents, heavy discounts to the customers, false advertisements, bribing the competitor's employees to know the business secrets etc. The responsibilities of business towards its competitors are

- Not to offer high sales commission to distributors and agents
- Not to offer heavy discounts to the customers
- False advertisements should not be given to defame the competitors
- Should not bribe the competitor's employees to copy their products and services

## Corporate social responsibility towards Government

Firms should follow the rules framed by the government. These guidelines are for the safety measures and for the benefit of the society. Responsibilities of the firms towards government are,

- Following the guidelines are given by the government
- Fees, duties and taxes should be paid regularly and honestly
- Should not follow the restrictive trade practices
- Firms should follow the pollution control norms
- Should not follow the corruption and other unlawful activities

## Corporate social responsibility towards Society

In almost all activities individuals, groups, organizations and families, etc interact with each other and dependent on each other. A relationship exists between them which may be direct or indirect. The increase in per capital income increases the value of the money and national income. With the increase in national income revenues of the business also increases. Thus it has certain responsibilities towards the society which may be as follows,

- Firms should help the weaker sections of the society
- Organizations should protect the social and cultural values
- Firms should generate the employment by extending their business
- Should protect the environment by taking proper measures
- Natural resources and wildlife should not be harmed

Should provide assistance in the areas of research, education, medical sciences, and technology, etc.

## Write notes on classification of entrepreneurs. (06 M)

## **Four Important Classification of Entrepreneurs**

## CLASSIFICATION OF ENTREPRENEURS ACCORDING TO THE TYPE OF BUSINESS

According to the type of business, entrepreneurs shall be classified as Business Entrepreneurs, Trading Entrepreneurs, Industrial Entrepreneurs, Corporate Entrepreneurs, Agricultural Entrepreneurs, Retail Entrepreneurs, Service Entrepreneurs and Social Entrepreneurs.

## 1. Business Entrepreneurs

Business entrepreneurs we those who conceive an idea to for a new product or service and then create a business to convert their ideas into reality. These entrepreneurs may be found in small business units or big enterprises. They concentrate both on production and marketing activities. Example: A Printing Press, bakery or a textile unit.

## 2. Trading Entrepreneurs

Trading Entrepreneurs are those who undertake trading activities. These entrepreneurs do not concentrate on manufacturing activities. They give more emphasis on distribution and marketing of goods. They identify potential markets, create <u>demand for the product</u> and influence people to buy the product. Example: Agents and Wholesalers.

## 3. Industrial Entrepreneurs

Industrial Entrepreneurs are those who concentrate in industrial and production activities. Trey identify the needs of the customers and manufacture a product according to their needs. They are generally a product-Oriented entrepreneur. Example: A manufacturer of Automobile spare parts, computer accessories.

## 4. Corporate Entrepreneur

Corporate entrepreneurs are those who exhibit innovative skills in organizing and managing corporate undertaking. Example: A Trust registered under the Trust Act.

## 5. Agricultural Entrepreneur

An agricultural entrepreneur is one who concentrates on agricultural activities. These entrepreneurs concentrate on activities like raising agricultural production, marketing of fertilizers etc.

## 6. Retail Entrepreneurs

Retail entrepreneurs are those who undertake trading activities. They have direct contact with customers and hence they are customer oriented. Example: An entrepreneur running a departmental store

## 7. Service Entrepreneur

A service entrepreneur is one who provides services to customers. They make profit by rendering services. Example: An entrepreneur running a hotel or dry cleaning unit.

## 8. Social Entrepreneur

A social entrepreneur is one who provides importance to the society by serving them. He concentrates on social issues and does not aim to make profit. Example: A person running an orphanage.

## CLASSIFICATION OF ENTREPRENEUR ACCORDING TO THE STAGES OF DEVELOPMENT

According to the Stages of development, entrepreneurs shall be classified as First Generation Entrepreneurs, Modern or Innovative Entrepreneurs, Classical Entrepreneurs and Inherited Entrepreneurs

## 1. First Generation Entrepreneur

A first generation entrepreneur is one who sets up an enterprise by his innovative skill. He combines various factors of production and provides marketable product or services by adopting innovative ideas. He is the first person to start an enterprise on his own. Though such a person may have the family background of some business, such entrepreneurs may also establish a certain business which may be unrelated to their family business.

## 2. Modern Entrepreneurs Or Innovative Entrepreneurs

A modern entrepreneur is a dynamic entrepreneur. He always looks for changes and responds to the changing demand of the market. His business ventures suits the current marketing needs.

## 3. Classical Entrepreneur

Classical entrepreneur is a stereo type entrepreneur. He aims at maximizing profits at a consistent level. There may or may not be an element of growth. Survival of the firm is given more importance by these entrepreneurs.

## 4. Inherited Entrepreneurs

These entrepreneurs have inherited family business or possess experience from their family business. These entrepreneurs may like to diversify a little from their family business.

## CLASSIFICATION OF ENTREPRENEURS ACCORDING TO MOTIVATIONAL ASPECTS

According to motivational aspects, entrepreneurs shall be classified as Pure Entrepreneurs, Induced Entrepreneurs, Motivated Entrepreneurs and Spontaneous Entrepreneurs.

## 1. Pure Entrepreneur

A pure entrepreneur is a person who is motivated by psychological and economic factors. Entrepreneurial task is undertaken by them due to certain reasons. Ability to handle risk, desire to enjoy better status, desire to get recognition in the society, thirst for making money motivates a person to take up entrepreneurial activities.

## 2. Induced Entrepreneur

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Induced entrepreneur are those who takes up entrepreneurial task due to the incentives and subsides granted by the government. Financial and technical assistance provided by the government motivates a person to start new ventures.

## 3. Motivated Entrepreneur

They are motivated by the desire far their self-fulfillment. They emerge because of the possibility of producing and, selling new products. They are also motivated by economic factors.

## 4. Spontaneous Entrepreneur

A person, turns out to be an entrepreneur, because of the natural talent vested in him. These entrepreneurs have self confidence and emerge as challengers. They take up entrepreneurial activity in order to tap their talents. They have great self confidence in their talent and are highly resourceful.

## CLASSIFICATION OF ENTREPRENEURS ACCORDING TO TECHNOLOGICAL ASPECTS

According to Technical Aspects, Entrepreneurs shall be classified as Technical Entrepreneurs, Non-Technical Entrepreneurs and Professional Entrepreneurs.

## 1. Technical Entrepreneur

A technical entrepreneur is one who concentrates more on production activities. He has got sound technical knowledge. He utilizes his technical knowledge and demonstrates his innovative capabilities. He is also known as technocrat.

## 2. Non-Technical Entrepreneur

A non-technical entrepreneur concentrates more on marketing activities. He tries to find out new strategies for marketing goods. He also promotes his business by employing various marketing methods.

## 3. Professional Entrepreneur

Professional entrepreneur is a person who applies innovative ideas in setting up of a business. He is interested in establishing the enterprises rather than managing it. Once the business is established, the entrepreneur will sell the business to some one else.

## CLASSIFICATION OF ENTREPRENEURS ACCORDING TO CLARENCE DANHOF

Clarence Danhof had classified entrepreneurs based on his study on American agriculture. He classified entrepreneurs into four categories.

## 1. Innovative Entrepreneur

An innovative entrepreneur is one who introduces new product, new service or new market. An innovative entrepreneur is also known as modern entrepreneur. An innovative entrepreneur can work only when a certain level of development is reached. These entrepreneurs introduce new changes and develop the business after a certain level of development is reached. They invent new products. Such kind of entrepreneurs can be seen in developed countries, as large sum of money can be diverted towards research and development purposes.

## 2. Adaptive Entrepreneur

Adaptive entrepreneur is one who adopts the successful innovations of innovative entrepreneur. These entrepreneurs imitate the techniques and technologies innovated by others. These entrepreneurs can be seen both in underdeveloped and developing countries. They also make small changes in relevance to their market environment.

#### 3. Fabian Entrepreneur

A fabian entrepreneur is one who responds to changes only when he is very clear that failure to respond to changes would result in losses. Such entrepreneurs do not introduce new changes. They also do not desire to adopt new methods. They are very shy and stick to old customs. They are very cautious.

## 4. Drone Entrepreneurs

These entrepreneurs do not make any changes. They refuse to utilize the opportunities and may also suffer losses. They are very conventional. They refuse to introduce changes. They even make losses but avoid changes. Sometimes they may be pushed out of the market.

## What is social audit? List the merits and demerits of internal and external auditing? (06 M)

The meaning of social audit is to inspect a company's working and production procedure to improve its social <u>performance</u>. The output of the social audit provides information on how well a company is keeping a balance between social responsibility and making profits.

Social audit is mandatory to be conducted as a company might overlook the social responsibility to make profits. The term "Social audit" is part of business culture since 1950.

Another reason for conducting it is to establish a positive image of the company in society to attract more customers. Companies conduct social audit internally, and if everything is found fine and per the society, then the report is made public.

## **Advantages of Internal Audit**

c) 1] More Effective Management

One of the biggest benefits of an internal audit is that it facilitates more effective management of the organization.

The internal auditor will be able to point out any weaknesses of the organization in the operations or internal controls of the company.

So the management can use these insights to better the chances of achieving their goals.

21 On going Review

The process of internal audit gives the organization a unique opportunity to conduct a review of the performances in the ongoing year itself.

They do not have to wait for the end of the year to review the company's performance. This also means that if they are not on the correct path, this will help them change course and correct their mistakes immediately.

3] Performances of Staff Improve

The staff of the company remains alert and active. This is because there is the fear of their mistakes being caught by the internal auditor almost immediately.

This will help improve their efficiency and performance. Also, they do not attempt to defraud the company for the same reasons. And on the other hand, it is a good morale booster for honest employees.

#### 4] Ensures Optimum Use of Resources

One other benefit of the process of internal control is that it can be used as a tool to promote the optimization of resources. It will help point out the areas in which resources are being underutilized or wasted. And then these can be corrected. It will help control the costs and expenses of the company.

#### 5] Division of Work

Internal audit helps promote the division of labor. It is important to keep a check on and observe the activities of all the departments and all of their employees. Division of labor will help in achieving this.

## **Limitations of Internal Audit**

Now let us move on to the limitations of internal audit. Like every good thing has a flip side, there exist some concerns about these limitations of internal audit. Let us take a look.

## 1] Shortage of Qualified Staff

The work of an audit requires years of study and experience. An inexperienced auditor can cause more damage than good. So usually, the company will find it somewhat difficult to find enough qualified staff members for the process of an internal audit.

#### 21 Time Lag

There will always be a time lag between accounting and auditing. Internal audit cannot begin till the accounting is complete. They cannot be done simultaneously. So if the accounting process is delayed, so is the internal audit.

## 3] Ignorance of Management

Unlike a statutory audit, the findings of an internal audit are not published or made available to all. Their findings are only forwarded to the management.

Now even if an internal audit reports points out to the shortcomings of the company or the errors in the financial statements, the management may not take corrective action.

They can choose to ignore such findings and then there will be no benefit gained from the internal audit.

#### **Advantages of External Audits**

External audits are not perfect, but they do offer many benefits above a regular internal audit. Consider some advantages of external audit procedures:

- They are more impartial than internal audits.
- External auditors have no job outside of conducting your audit.
- Outside eyes see your organization differently than you do.
- There is quicker identification of possible problem areas.
- They provide validation or invalidation of concerns raised during your internal audit.

#### **Limitations of External Audits**

External audits are typically more impartial than internal audits, but they are not without their limitations. This is why it can be helpful to have a variety of audit types conducted by different professionals over time. Consider the limitations of external audit procedures:

- They are not totally impartial because the auditors are still paid by you.
- External audits can sometimes be cost prohibitive for small businesses.
- Confidentiality can be a concern.
- You have to educate the external auditor about your company.
- External audits require a lot of time and jumping through hoops.

## Define SSI. What are the general characteristics of SSI. (06 M)

Small scale industries (SSI) are those industries in which <u>manufacturing</u>, providing services, <u>productions</u> are done on a small scale or micro scale. For example, these are the ideas of Small scale industries: Napkins, tissues, chocolates, toothpick, water bottles, small toys, papers, pens. Small scale industries play an important role in <u>social and economic development of India</u>. These industries do a one-time investment in machinery, plants, and industries which could be on an <u>ownership</u> basis, hire <u>purchase</u> or lease basis. But it does not exceed Rs. 1 Crore. Let us discuss in detail about it.

## **Characteristics:**

- Ownership: SSI's generally are under single ownership. So it can either be a sole proprietorship or sometimes a partnership.
- **Management**: Generally both the management and the control is with the owner/owners. Hence the owner is actively involved in the day-to-day activities of the business.
- **Labor Intensive**: SSI's dependence on technology is pretty limited. Hence they tend to use labour and manpower for their production activities.
- **Flexibility**: SSI's are more adaptable to their changing business environment. So in case of amendments or unexpected developments, they are flexible enough to adapt and carry on, unlike large industries.
- **Limited Reach**: Small scale industries have a restricted zone of operations. Hence, they can meet their local and regional demand.
- **Resources utilization**: They use local and readily available resources which help the economy fully utilize natural resources with minimum wastage.

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## Discuss the role of SSI in the development of the country. (08 M)

## **Small Scale Industries Provides Employment**

- SSI uses labour intensive techniques. Hence, it provides employment opportunities to a large number of people. Thus, it reduces the unemployment problem to a great extent.
- SSI provides employment to artisans, technically qualified persons and professionals. It also provides employment opportunities to people engaged in traditional arts in India.

## 2. SSI Facilitates Women Growth

- It provides employment opportunities to women in India.
- It promotes entrepreneurial skills among women as special incentives are given to women entrepreneurs.

## 3. SSI Brings Balanced Regional Development

- SSI promotes decentralized development of industries as most of the small scale industries are set up in backward and rural areas.
- It removes regional disparities by industrializing rural and backward areas and brings balanced regional development.
- It promotes urban and rural growth in India.

## 4. SSI Helps in Mobilization of Local Resources

• It helps to mobilize and utilize local resources like small savings, entrepreneurial talent, etc., of the entrepreneurs, which might otherwise remain idle and unutilized. Thus it helps in effective utilization of resources.

## **5. SSI Paves for Optimisation of Capital**

- SSI requires less capital per unit of output. It provides quick return on investment due to shorter gestation period. The pay back period is quite short in small scale industries.
- SSI functions as a stabilizing force by providing high output capital ratio as well as high employment capital ratio.

## **6. SSI Promotes Exports**

- SSI does not require sophisticated machinery. Hence, it is not necessary to import the machines from abroad. On the other hand, there is a great demand for goods produced by small scale sector. Thus it reduces the pressure on the country's balance of payments.
- SSI earns valuable foreign exchange through exports from India.

## 7. SSI Complements Large Scale Industries

- SSI plays a complementary role to large scale sector and supports the large scale industries.
- SSI provides parts, components, accessories to large scale industries and meets the requirements of large scale industries through setting up units near the large scale units.

## 8. SSI Meets Consumer Demands

- SSI produces wide range of products required by consumers in India.
- SSI meets the demand of the consumers without creating a shortage for goods. Hence, it serves as an antiinflationary force by providing goods of daily use.

#### 9. SSI Ensures Social Advantage

- SSI helps in the development of the society by reducing concentration of income and wealth in few hands.
- SSI provides employment to people and pave for independent living.

## 10. Develops Entrepreneurship

- It helps to develop a class of entrepreneurs in the society. It helps the job seekers to turn out as job givers.
- It promotes self-employment and spirit of self-reliance in the society.
- Development of small scale industries helps to increase the per capita income of India in various ways.

## Explain various problems faced by SSI. (06 M)

## **Problems Faced By Small Scale Industries**

The following are the problems faced by Small Scale Industries:

## 1. Poor capacity utilization

In many of the Small Scale Industries, the capacity utilization is not even 50% of the installed capacity. Nearly half of the machinery remains idle. Capital is unnecessarily locked up and idle machinery also occupies space and needs to be serviced resulting in increased costs.

## 2. Incompetent management

Many Small Scale Industries are run in an incompetent manner by poorly qualified entrepreneurs without much skill or experience. Very little thought has gone into matters such as demand, production level and techniques, financial availability, plant location, future prospects etc. According to one official study, the major reason for SSI sickness is deficiency in project Management i.e., inexperience of promoters in the basic processes of production, cash flow etc

## 3. Inadequate Finance

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Many Small Scale Industries face the problem of scarcity of funds. They are not able to access the domestic capital market to raise resources. They are also not able to tap foreign markets by issuing ADR's (American Depository Receipts) GDR's (Global Depository Receipts) etc because of their small capital base. Banks and financial institutions require various procedures and formalities to be completed. Even after a long delay, the funds allocated are inadequate.

Bank credit to the small scale sector as a percentage of total credit has been declining. It fell from 16% in

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1999 to 12.5% in 2002. Small Scale Industries are not able to get funds immediately for their needs. They have to depend on private money lenders who charge high interest. Finance, as a whole, both long and short term, accounts for as large as 43% of the sector's sickness.

## 4. Raw material shortages

Raw materials are not available at the required quantity and quality. Since demand for raw materials is more than the supply, the prices of raw materials are quite high which pushes up the cost. Scarcity of raw materials results in idle capacity, low production, inability to meet demand and loss of customers.

## 5. Lack of marketing support

Small Scale Industries lack market knowledge with regard to competitors, consumer preferences, market trends. Since their production volume is small and cannot meet demand for large quantities their market is very restricted. Now with the process of liberalization and globalization they are facing competition from local industries as well as foreign competitors who sell better quality products at lower prices. For e.g. heavily subsidized but better quality imports from China has made most of the Indian SSI units producing toys, electronic goods, machine tools, chemicals, locks and paper etc., unviable.

## 6. Problem of working capital

Many Small Scale Industries face the problem of inadequate working capital. Due to lack of market knowledge their production exceeds demand, and capital gets locked in unsold stock. They do not have enough funds to meet operational expenses and run the business.

## 7. Problems in Export

They lack knowledge about the export procedures, demand patterns, product preferences, international currency rates and foreign buyer behavior. Small Scale Industries are not able to penetrate foreign markets because of their poor quality and lack of cost competitiveness. In countries like Taiwan, Japan etc. products produced by Small Scale Industries are exported to many foreign countries. But in India not much thought and focus has gone into improving the export competitiveness of Small Scale Industries.

## 8. Lack of technology up-gradation

Many Small Scale Industries still use primitive, outdated technology leading to poor quality and low productivity. They do not have adequate funds, skills or resources to engage in research and development to develop new technologies. Acquiring technology from other firms is costly. Therefore Small Scale Industries are left with no choice but to continue with their old techniques.

## 9. Multiplicity of labor laws

One of the merits of Small Scale Industries are that they are labor intensive and can provide employment to a large number of people. But the multiplicity of labor laws, need to maintain several records (PF, ESI, Muster Rolls etc), fines and penalties for minor violations etc place Small Scale Industries at a great disadvantage.

## 10. Inability to meet environmental standards

The government lays down strict environmental standards and Courts have ordered closure of polluting industries. Small Scale Industries which are already facing shortage of funds to carry out their business are not able to spend huge sums on erecting chimneys, setting up effluent treatment plants etc.

#### 11. Delayed payments

Small Scale Industries buy raw materials on cash but due to the intense competition have to sell their products on credit. Buying on cash and selling on credit itself places a great strain on finances. The greater problem is payments are delayed, sometimes even by 6 months to one year. It is not only the private sector but even government departments are equally guilty. Delayed payments severely impact the survival of many Small Scale Industries.

## 12. Poor industrial relations

Many Small Scale Industries are not able to match the pay and benefits offered by large enterprises, because their revenues and profitability are low and also uncertain. This leads to labor problems. Employees fight for higher wages and benefits which the SSI is not able to provide. This may lead to strikes, resulting in damage to property in case of violence by employees, production losses etc.

#### 13. Strain on government finances

Marketing of products manufactured by Small Scale Industries is a problem area. The government has to provide high subsidies to promote sales of products produced by Khadi and Village Industries. This places a great strain on government finances.

## 14. Concentration of industrial units

There is high concentration of small scale industrial units in a few states. Of the estimated 3.37 million units as on 2000-01, nearly 60% were located in six states. West Bengal, Madhya Pradesh and Uttar Pradesh alone account for 20% of Small Scale Industries. Due to concentration, there is high competition among them to procure raw materials and other industrial inputs. This leads to high costs and scarcity of raw materials and other inputs affecting their production and increasing costs.

## Write notes on the activities of SIDBI & KIADB. (08 M) SIDBI

The best way of improving rural economy is by creating more employment through dispersal of various industrial activities so that there will be development of backward areas and at the same time improvement in the standard of living of the people. The above object could be achieved easily by the promotion of small scale industry as it contributes nearly 40% of the manufacturing sector in the country.

In India, small scale industry's contribution during 1998-99 was INR 5,38,357 crores as against INR. 4,65,171 crores in 1997-98. The growth of SSI was 8.43 per cent. It has an employment potentiality of 171.58 lakhs. Hence, it is important to create an apex institution which can provide finance to small scale industries.

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#### ORIGIN OF SIDBI

In order to promote small scale industries in the country, a special Act was passed in Parliament in April 1990 for starting of Small Industries Development Bank of India. SIDBI is a wholly owned subsidiary of <u>IDBI</u>. It is providing assistance to all those institutions which are promoting small scale industries.

#### CAPITAL OF SIDBI

SIDBI has an authorized capital of Rs. 1000 crores which can be increased to Rs. 1000 crores. The RBI has also allocated INR 10,000 Crores to SIDBI for various venture capital activities and company startups in 2015. The entire operations of IDBI connected with small scale industries are now handed over to SIDBI.

## **OBJECTIVES OF SIDBI**

- 1. To promote marketing of products of small scale sector.
- 2. To upgrade technology and also undertaking modernization of small scale units.
- 3. To provide more financial assistance to small scale ancillary and tiny sector.
- 4. To encourage employment oriented industries.
- 5. To coordinate all the other institutions involved in the promotion of small scale industries.

## **FUNCTIONS OF SIDBI**

Coordinating and financing the various institutions involved in the development of small industries are undertaken by SIDBI.

Its functions are

#### Refinance to SSI:

Refinancing loans and advances provided by commercial banks to small scale industrial units. Different types of loans are given to small scale industries and as per the <u>recommendations of Nayak Committee</u>, additional funds have been given to commercial banks for promoting more borrowings of small scale industries. In fact, there are commercial banks with separate branches meant exclusively for small scale industries.

## **Discounting the bills of SSIs:**

Apart from discounting the bills of small scale industries, even hurdles arising out of financing small scale industries are being discounted. The bank credit has gone up to Rs. 2,18,219 crores. The percentage of bank credit to SSI has gone up to 17.5.

## SIDBI offers assistance to exports:

Direct assistance to export oriented units and also to import substituting units in the small scale sector is given the highest priority. There has been a simplified procedure for the exports of small scale industries. Products of SSI exporters are displayed in international exhibitions with the help of SIDBI. Other export related expenditures are borne by SIDBI. Latest packing standards and training programmes on packing for exports are also financed by SIDBI. Trade delegations and sales and study teams are sponsored for small scale sector under Marketing Development Assistance scheme.

## Seed capital and also soft loan Assistance:

Seed capital is provided for starting of SSI units. Under this, the initial expenditure in starting the small scale units are being met by SIDBI. In addition to that, SIDBI, under this scheme, undertakes the following activities:

- Identification of potential entrepreneurs in the district.
- Providing training facility for these entrepreneurs.
- Linkage with banks for financial assistance
- Follow-up and monitoring the progress

Under soft loan, SIDBI provides long-term loan repayable in a period of 15 to 20 years with a very low rate of interest.

#### Non finance services:

Under this scheme, SIDBI undertakes with the help of other institutions marketing survey and the potentialities of small scale industries in the particular area. Wherever possible, it helps in the procurement raw materials.

## Factoring, Leasing and HP finance:

In factoring services, SIDBI finances 80% of the bills to the seller and after obtaining the remaining 20% balance, it repays to the seller and for this service it obtains a <u>factoring</u> commission.

## Leasing:

After the increase in the fixed capital limit of Rs. 1 crore to SSI, there has been increasing demand for <u>leasing equipment</u>. The small scale industries have expanded their activities as lease finance institutions have enabled them to obtain costly equipment which are otherwise, not possible within the purview of small scale industries, In fact, this has helped them in modernizing their industry.

#### HP finance:

<u>Hire purchase financing</u> has also helped small scale industries in acquiring machinery of a higher value. In fact, certain machinery are even imported from foreign countries on a deferred payment basis.

## Assistance to other financial institutions:

In every State, State Finance Corporations have been promoted for financing small scale industries. They are under the control of respective state governments. At the national level, a separate corporation is promoted for financing small scale industries called <u>National Small Scale Industries Corporation</u>. This was started in 1995 to promote, aid and ensure faster growth in small scale industries.

#### Automatic finance scheme:

Refinance facilities under automatic finance scheme is also provided which was initially for Rs. 50 lakhs. Now with the increase in the capital limit of small scale industries, this finance scheme has also increased its limit to Rs. 2 crores.

#### **Modernization:**

The technology development which has taken place in various industries has also spread to small scale industries and to meet the requirements of technology upgradation, a separate fund has been set up by SIDBI, through which it provides Technology upgradation equipment finance.

## KIADB

## KIADB – As a Premier Industrial Land Provider

Karnataka Industrial Areas Development Board (KIADB) is a statutory body, constituted under sec.5 of Karnataka Industrial Areas Development Act (KIAD Act)-1966 vide order No. Cl 67 GMI 66 dated 20th June 1966 to promote rapid and orderly establishment and development of industries and for providing industrial infrastructural facilities and other amenities in Industrial areas in the State of Karnataka. KIAD Act-1966, a special Act, provides for expeditious acquisition of lands for industrial and infrastructure purposes.

KIADB functions as per statutory provisions, Rules and Regulations enacted under the KIAD Act. The Board comprises of senior Government Officers in their ex-officio capacities. The Board members meet regularly to take decisions and monitor the functions. The vision of KIADB and world class infrastructure has made investors all over the world take notice of Karnataka as the premier destination for their startups and ventures.

## Aims and Objectives:

- 1. Promote rapid and orderly development of industries in the state.
- 2. Assist in implementation of policies of Government within the purview of KIAD Act.
- 3. Facilitate in establishing infrastructure projects.
- 4. Function on "No Profit No Loss" basis.

#### **Functions:**

- 1. Acquire land and develop industrial areas in the state.
- 2. Provide basic infrastructure in the industrial areas.
- 3. Acquire land for Single Unit Complexes.
- 4. Acquire land for Government agencies for their schemes and infrastructure projects.

## **Facilitator of Industrial Growth**

KIADB has so far developed 173 Industrial Areas in 30 districts of the State. A typical industrial area developed by the Board will have following infrastructure facilities:

- Approach roads and internal roads with storm water drains.
- Power supply and street lighting.
- Water supply.
- CETP/STP.
- Technical Training Centres and R&D centres.
- Common Facilities Centres to accommodate Banks, Post Offices, Telephone Exchanges, Dispensaries and Canteens, among others.
- Power Sub-Stations.
- Hotels & Hospitals.
- Housing tenements to provide housing facility to the labour force working in the industrial units.

## List the institutions that provide technical, marketing and training support industries. (06 M)

- 1. mall Scale Industries Board (SSIB)
- 2. Small Industries Development Organisation (SIDO)
- 3. National Small Industries Corporation (NSIC)
- 4. Small Industries Service Institutes (SISIS)
- 5. Specialised Institutions
- 6. State Directorate of Industries
- 7. State Small Industries Development Corporations (SSIDCs)
- 8. Industrial Estates

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- 9. District Industries Centers (DICs)
- 10. Technical Consultancy Organisations (TCOS)
- 11. Commercial Banks
- 12. State Financial Corporations
- 13. Small Industries Development Bank of India (SIDBI)
- 14. National Bank for Agriculture and Rural Development (NABARD)
- 15. Entrepreneurial Guidance Bureau (EGB)
- 16. Khadi and Village Industries Commission (KVIC)
- 17. Small Industry Extension Training Institute (SIETI)
- 18. Small Industry Development Corporation (SIDCO).

## What are the important functions of NSIC? (06 M)

#### NSIC

National Small Industries Corporation (NSIC), is an ISO 9001-2015 certified Government of India Enterprise under Ministry of Micro, Small and Medium Enterprises (MSME). NSIC has been working to promote, aid and foster the growth of micro, small and medium enterprises in the country. NSIC operates through countrywide network of offices and Technical Centres in the Country. In addition, NSIC has set up Training cum Incubation Centre managed by professional manpower.

**Mission**: "To promote and support Micro, Small & Medium Enterprises (MSMEs) Sector" by providing integrated support services encompassing Marketing, Technology, Finance and other services.

Vision: "To be a premier Organization fostering the growth of Micro, Small and Medium Enterprises (MSMEs) Sector".

#### Schemes of NSIC

NSIC facilitates Micro, Small and Medium Enterprises with a set of specially tailored scheme to enhance their competitiveness. NSIC provides integrated support services under Marketing, Technology, Finance and other Support service.

## **Marketing Support**

Marketing has been identified as one of the most important tool for business development. It is critical for the growth and survival of MSMEs in today's intensely competitive market. NSIC acts as a facilitator and has devised a number of schemes to support enterprises in their marketing efforts, both domestic and foreign markets. These schemes are briefly described as under:

## **Consortia and Tender Marketing**

Small Enterprises in their individual capacity face problems to procure & execute large orders, which deny them a level playing field vis-a'-vis large enterprises. NSIC forms consortia of Micro and Small units maufacturing the same product, thereby pooling in their capacity.

NSIC applies the tenders on behalf of single MSE/Consortia of MSEs for securing orders for them. These orders are then distributed amongst MSEs in tune with their production capacity.

## **Single point Registration for Government Purchase**

The units registered under Single Point Registration Scheme of NSIC are eligible to get the benefits under "Public Procurement Policy for Micro & Small Enterprises (MSEs) Order 2012" as notified by the Government of India, Ministry of Micro Small & Medium Enterprises, New Delhi vide Gazette Notification dated 23.03.2012.

- Issue of the Tender Sets free of cost;
- Exemption from payment of Earnest Money Deposit (EMD),
- In tender participating MSEs quoting price within price band of L1+15 per cent shall also be allowed to supply a portion upto 20% of requirement by bringing down their price to L1 Price where L1 is non MSEs.
- Every Central Ministries/Departments/PSUs shall set an annual goal of minimum 20 per cent of the total annual purchases of the products or services produced or rendered by MSEs. Out of annual requirement of 20% procurement from MSEs, 4% is earmarked for units owned by Schedule Caste /Schedule Tribes (as per PPP Order dated 23.03.2012 overall procurement goal shall be mandatory w.e.f. 01/04/2015)
- In addition to the above, 358 items are also reserved for exclusive purchase from SSI Sector

## MSME Global Mart B2B Web Portal for MSMEs

With increase in competition and melting away of international boundaries, the demand for information is reaching new heights. NSIC, realizing the needs of MSMEs, is offering Infomediary Services which is a one-stop, one-window bouquet of aids that will provide information on business & technology and also exhibit the core competence of Indian MSMEs. B2B Webportal is offering following benefits to the members of Infomediary Services.

- Interactive database of MSMEs
- Self web development tool
- National Tenders on email
- Centralized mail system
- Popular Products Section
- Unlimited global Trade Leads
- Trust Seal of NSIC
- MSME Web Store
- Multiple Language Support
- Discussion Board
- Call Centre Support & Live Chat
- Other Value added Services
- Payment Gateway for membership subscription

## **Marketing Intelligence**

Collect and disseminate both domestic as well as international marketing intelligence for the benefit of MSMEs. This cell, in addition to spreading awareness about various programmes / schemes for MSMEs, will specifically maintain database and disseminate information.

## **Exhibitions and Technology Fairs**

To showcase the competencies of Indian SSIs and to capture market opportunities, NSIC participates in select International and National Exhibitions and Trade Fairs every year. NSIC facilitates the participation of the small enterprises by providing concessions in rental etc. Participation in these events exposes SSI units to international

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practices and enhances their business prowess.

#### **Buver-Seller meets**

Bulk and departmental buyers such as the Railways, Defence, Communication departments and large companies are invited to participate in buyer-seller meets to enrich small enterprises knowledge regarding terms and conditions, quality standards, etc required by the buyer. These programmes are aimed at vendor development from MSMEs for the bulk manufacturers.

## **Credit Support**

NSIC facilitates credit requirements of small enterprises in the following areas:

### **Financing for procurement of Raw Material (Short term)**

NSIC's Raw Material Assistance Scheme aims at helping Small Enterprises by way of financing the purchase of Raw Material (both indigenous & imported). The salient features are:

- 1. Financial Assistance for procurement of Raw Materials upto 90 days.
- 2. Bulk purchase of basic raw materials at competitive rates.
- 3. NSIC facilitates import of scares raw materials.
- 4. NSIC takes care of all the procedures, documentation & issue of letter of credit in case of imports.

## Finance through syndication with Banks

In order to ensure smooth credit flow to small enterprises, NSIC is entering into strategic alliances with commercial banks to facilitate long term / working capital financing of the small enterprises across the country. The arrangement envisages forwarding of loan applications of the interested small enterprises by NSIC to the banks and sharing the processing fee.

## **Technology Support**

Technology is the key to enhancing a company's competitive advantage in today's dynamic information age. Small enterprises need to develop and implement a technology strategy in addition to financial, marketing and operational strategies and adopt the one that helps integrate their operations with their environment, customers and suppliers.

NSIC offers small enterprises the following support services through its Technical Services Centres and Extension Centres:

- 1. Advise on application of new techniques
- 2. Material testing facilities through accredited laboratories
- 3. Product design including CAD
- 4. Common facility support in machining, EDM, CNC, etc.
- 5. Energy and environment services at selected centres
- 6. Classroom and practical training for skill upgadation

## Explain the meaning of projects. Classify them. (05 M)

## CONCEPT OF PROJECT

The term "project" connotes programme of action. Project is always interwoven with all socio- economic and cultural activities the project involves a scheme and a speculative imagination.

The kinds of projects

- 1. Agricultural projects- relating to
  - Land development
  - Irrigation
  - Soil- conservation
  - Fertilizers, and
  - Seeds etc.

## 2. Research projects

Definition of "Project"- According to World Bank, project can be defined as "An approval for a capital investment to develop facilities to provide goods and services".

Little and Mireless defines project as "A scheme or a part of scheme for investing resources which can be reasonably analyzed and evaluated as an independent unit". "It is an appraisal for investment with the definite aim of producing a flow of output over a specific period of time".

Gittinger has defined it as the whole gamut of activities involved in using resources to gain benefits.

According to Dr. Albert O. Hirchman" The development project connotes purposefulness, some minimum size, a specific location, the introduction of something qualitative new, and the expectation that a sequence of further development will be set in motion".

Project can be defined as a scientifically evolved work plan devised to achieve a specific objective with a specified period of time. The three basic attributes of a project are

- 1. A course of action
- 2. Specific objectives, and
- 3. Definite time perspective.

## CLASSIFICATION OF PROJECTS

Establishment of a new business unit to manufacture some product or arrange for the distribution of products of another company poses a challenge to the entrepreneur.

- a. Helps in expressing and highlighting the essential features of the project.
- b. Project includes all activities aimed at:
  - Increased production of goods and/ or services.
  - Increasing the capability of existing projects and

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• Increasing the productivity of these goods/ services.

The projects can be classified as under:

## 1. Quantifiable and Non- quantifiable projects

- Quantifiable projects- quantitative assessment of benefits can be made. Concerned with industrial development, power generation, and mineral development.
- Non- quantifiable projects- where quantitative assessment is not possible. Concerned with health, education, defense etc.

## 2. Sectoral Projects

In India planning commission has accepted the Sectoral basis as the criterion for classification

- Agriculture & Allied sector
- Irrigation and power sector
- Industry and Mining sector
- Transport and communication
- Social service sector
- Miscellaneous

Useful in resource allocation at macro level

#### 3. Techno- Economic Projects

Based on their techno- economic characteristics

- (a) Factor intensity- oriented classification
  - Capital intensive
  - Labour- intensive
- (b) Causation-oriented classification
  - Demand based or.
  - Raw materials based

Dominant reasons for starting a project

- Non- availability of certain goods or services and consequent demand for such goods or services.
- Availability of certain raw materials, skills or other inputs.
- (c) Magnitude- oriented classification- based on the size of the investment.
  - Large- scale.
  - Medium- scale.
  - Small- scale.

Techno- economic classification facilitates the process of project feasibility appraisal.

#### 4. Financial Institution Classification

All India and state financial institutions classify projects according to their age, experience and the purpose.

- New projects
- Expansion projects
- Modernization projects
- Diversification projects

These projects are invariably are profit-oriented.

## 5. Services Projects

- Welfare projects
- Service projects
- Research and development projects

Educational projects

## What are the steps involved in formulation of project report? Explain. (10 M)

## Formulation of a Project Report:

A general set of information given in any project report is listed by Vinod Gupta in his study on "Formulation of a Project Report". It is reproduced here.

Project formulation divides the process of project development into eight distinct & sequential stages. These stages are;

## 1. General Information-

The information of general nature given in the project report include the following;

- 1. Bio-data of Promoter,
- 2. Industry Profile,
- 3. Constitution & Organization,
- 4. Product Details.

## 2. Project Description-

A brief description of the project covering the following aspects is given in the project report.

- 1. Site Location of enterprise; owned or leasehold land; industrial area; No Objection Certificate from the Municipal Authorities if the enterprise location falls in the residential area.
- 2. Physical Infrastructure Availability of the following items in infrastructure should be mentioned in the project.Raw Material, Skilled Labour, Power, Fuel, Water

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- 3. Pollution Control
- 4. Communication System
- 5. Transport Facilities
- 6. Other Common Facilities Availability of common facilities like machine shops, welding shops & electrical repair shops etc. should be stated in the report.
- 7. Production Process.
- 8. Machinery & Equipment.
- 9. Capacity of the Plant
- 10. Technology Selected
- 11. Research & Development

## 3. Market Potential:

While preparing a project report, the following aspects relating to market potential of the product should be stated in the report.

- 1. Demand & Supply Position State the total expected demand for the product & present supply position. It should also be mentioned how much of the gap will be filled up by the proposed unit.
- 2. Expected Price.
- 3. Marketing Strategy.
- 4. After-Sales Service
- 5. Transportation
- 6. Capital Costs & Sources of Finance:

An estimate of the various components of capital items like land & buildings, plant & machinery, installation costs, preliminary expensis, margin for working capital should be given in the project report.

## 5. Assessment of Working Capital Requirements:

The requirement for working capital & its sources of supply should be carefully & clearly mentioned in the project report. It is always better to prepare working capital requirements in the prescribed formats designed by limits of requirement. It will minimize objections from the bankers side.

## 6. Other Financial Aspects:

In order to adjudge the profitability of the project to be set up, a projected Profit & Loss Account indicating likely sales revenue, cost of production allied cost & profit should be prepared. A projected Balance Sheet & Cash Flow Statement should be prepared to indicate the financial position & requirements at various stages of the project.

## 7. Economic & Social Variables:

In view of the social responsibility of business, the abatement costs, ie, the costs for controlling the environmental damage should be stated in the project. Arrangement made for treating the effluents & emissions should also be mentioned in the report.

Following are the examples of social-economic benefits.

- 1. Employment Generation.
- 2. Import Substitution.
- 3. Local Resource Utilization.
- 4. Development of the Area.
- 8. **Project Implementation:**

Every entrepreneur should draw an implementation scheme or a time-table for his project to ensure the timely completion of all activities involved in setting up an enterprise. Delay in project Implementation jeopardizes the financial viability of the project.

## Write notes project life cycle. (05 M)

## The Project Life Cycle (Phases)

The project manager and project team have one shared goal: to carry out the work of the project for the purpose of meeting the project's objectives. Every project has a beginning, a middle period during which activities move the project toward completion, and an ending (either successful or unsuccessful). A standard project typically has the following four major phases (each with its own agenda of tasks and issues): initiation, planning, implementation, and closure. Taken together, these phases represent the path a project takes from the beginning to its end and are generally referred to as the project "life cycle."

## Initiation Phase

During the first of these phases, the initiation phase, the project objective or need is identified; this can be a business problem or opportunity. An appropriate response to the need is documented in a business case with recommended solution options. A feasibility study is conducted to investigate whether each option addresses the project objective and a final recommended solution is determined. Issues of feasibility ("can we do the project?") and justification ("should we do the project?") are addressed.

Once the recommended solution is approved, a project is initiated to deliver the approved solution and a project manager is appointed. The major deliverables and the participating work groups are identified, and the project team begins to take shape. Approval is then sought by the project manager to move onto the detailed planning phase.

## Planning Phase

The next phase, the planning phase, is where the project solution is further developed in as much detail as possible and the steps necessary to meet the project's objective are planned. In this step, the team identifies all of the work to be done. The project's tasks and resource requirements are identified, along with the strategy for producing them. This is also referred to as "scope management." A project plan is created outlining the activities, tasks, dependencies, and timeframes. The project manager coordinates the preparation of a project budget by providing cost

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estimates for the labour, equipment, and materials costs. The budget is used to monitor and control cost expenditures during project implementation.

Once the project team has identified the work, prepared the schedule, and estimated the costs, the three fundamental components of the planning process are complete. This is an excellent time to identify and try to deal with anything that might pose a threat to the successful completion of the project. This is called risk management. In risk management, "high-threat" potential problems are identified along with the action that is to be taken on each high-threat potential problem, either to reduce the probability that the problem will occur or to reduce the impact on the project if it does occur. This is also a good time to identify all project stakeholders and establish a communication plan describing the information needed and the delivery method to be used to keep the stakeholders informed.

Finally, you will want to document a quality plan, providing quality targets, assurance, and control measures, along with an acceptance plan, listing the criteria to be met to gain customer acceptance. At this point, the project would have been planned in detail and is ready to be executed.

## **Implementation (Execution) Phase**

During the third phase, the implementation phase, the project plan is put into motion and the work of the project is performed. It is important to maintain control and communicate as needed during implementation. Progress is continuously monitored and appropriate adjustments are made and recorded as variances from the original plan. In any project, a project manager spends most of the time in this step. During project implementation, people are carrying out the tasks, and progress information is being reported through regular team meetings. The project manager uses this information to maintain control over the direction of the project by comparing the progress reports with the project plan to measure the performance of the project activities and take corrective action as needed. The first course of action should always be to bring the project back on course (i.e., to return it to the original plan). If that cannot happen, the team should record variations from the original plan and record and publish modifications to the plan. Throughout this step, project sponsors and other key stakeholders should be kept informed of the project's status according to the agreed-on frequency and format of communication. The plan should be updated and published on a regular basis.

Status reports should always emphasize the anticipated end point in terms of cost, schedule, and quality of deliverables. Each project deliverable produced should be reviewed for quality and measured against the acceptance criteria. Once all of the deliverables have been produced and the customer has accepted the final solution, the project is ready for closure.

## **Closing Phase**

During the final closure, or completion phase, the emphasis is on releasing the final deliverables to the customer, handing over project documentation to the business, terminating supplier contracts, releasing project resources, and communicating the closure of the project to all stakeholders. The last remaining step is to conduct lessons-learned studies to examine what went well and what didn't. Through this type of analysis, the wisdom of experience is transferred back to the project organization, which will help future project teams.

## Discuss the concept and importance of network analysis. (06 M)

Network analysis is the method of planning and controlling projects by recording their interdependence in a diagrammatic form which enables each fundamental problem involved to be tackled separately.

A project is combination of interrelated activities which must be executed in a certain order before the entire task can be completed. An activity in a project is usually viewed as a job requiring time and resources for its completion.

Until four decade ago, the best known project planning tool was Gantt bar chart which specifies the start and finish times for each activity on horizontal time scale but the disadvantage is the interdependency between different activities which cannot be determined from the bar chart.

The project management has now been evolved as a new field with the development of two analytic techniques for planning, scheduling and controlling of projects. These are the Critical Path Method (CPM) and the Project Evaluation and Review Technique (PERT).

The management of any organization involves the efficient allocation of resources. Organisations frequently get engaged in large complex projects requiring many different activities which need to be performed in order to complete the project.

Network is a pictorial representation of the interrelationship of all types of activities and has come to forefront for planning, scheduling and controlling the complex projects consisting of number of work contents.

PERT and CPM developed independently out of research studies that were being conducted by U.S. Navy and Dupont company. PERT was an outgrowth of the U.S. Navy Polaris submarine Missile Program whereas CPM was developed for planning the construction of chemical plants.

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Since then both these techniques have been successfully applied to problems involving construction of work, assembly line scheduling, maintenance operations, bid preparation and submitting of project proposals, market penetration programs, manpower planning, the planning of political campaigns, various plants expansion programmes and in military and research development programs etc.

## Importance of Network Analysis:

Followings are the main objectives of network analysis:

- (a) To minimize idle resources.
- (b) To minimize the total project cost.
- (c) To trade off between time and cost of project.
- (d) To minimize production delays, interruptions and conflicts.
- (e) To minimize the total project duration.

#### (a) To minimize idle resources:

Allowing for large variations in the use of limited resources may disturb the whole plan. Thus, efforts should be made to avoid the cost incurred due to idle resources.

## (b) To minimize the total project cost:

The total cost of the project can be calculated and then efforts can be made to minimize the total cost by calculating the cost of delay in the completion of an activity of the project in addition to the cost of the resources required to carry out the jobs at various speeds (i.e. normal or over time rates of pay).

## (c) To trade off between time and cost of project:

The idea of trade off between time and cost of project is centred on the idea that duration of same activities can be cut down if additional resources are allocated to them.

For technical reasons, the durations may not be reduced indefinitely. Similarly, there is also a most cost efficient duration called 'normal point' & stretching the activity beyond it may lead to <sup>a</sup> rise in direct costs.

## (d) To minimize production delays, interruption and conflict:

This is achieved by identifying all activities involved in the project, their precedence constraints, etc.

## (e) To minimize idle resources:

Allowing for large variations in the use of limited resources may disturb the whole plan. Thus, efforts should be made to avoid the cost incurred due to resources.

## What are the steps involved in CPM? List its merits and demerits. (08 M) Critical Path Method (CPM)

Critical path method is based on mathematical calculations and it is used for scheduling project activities. This method was first introduced in 1950s as a joint venture between Remington Rand Corporation and DuPont Corporation

The initial critical path method was used for managing plant maintenance projects. Although the original method was developed for construction work, this method can be used for any project where there are interdependent activities.

In the critical path method, the critical activities of a program or a project are identified. These are the activities that have a direct impact on the completion date of the project.

## **b**) Key Steps in Critical Path Method

Let's have a look at how critical path method is used in practice. The process of using critical path method in project planning phase has six steps.

Step 1: Activity specification

You can use the Work Breakdown Structure (WBS) to identify the activities involved in the project. This is the main input for the critical path method.

In activity specification, only the higher-level activities are selected for critical path method.

When detailed activities are used, the critical path method may become too complex to manage and maintain.

Step 2: Activity sequence establishment

In this step, the correct activity sequence is established. For that, you need to ask three questions for each task of

your list.

- Which tasks should take place before this task happens.
- Which tasks should be completed at the same time as this task.
- Which tasks should happen immediately after this task.

Step 3: Network diagram

Once the activity sequence is correctly identified, the network diagram can be drawn (refer to the sample diagram above).

Although the early diagrams were drawn on paper, there are a number of computer softwares, such as Primavera, for this purpose nowadays.

Step 4: Estimates for each activity

This could be a direct input from the WBS based estimation sheet. Most of the companies use 3-point estimation method or COCOMO based (function points based) estimation methods for tasks estimation.

You can use such estimation information for this step of the process.

Step 5: Identification of the critical path

For this, you need to determine four parameters of each activity of the network.

- Earliest start time (ES) The earliest time an activity can start once the previous dependent activities are over
- Earliest finish time (EF) ES + activity duration.
- Latest finish time (LF) The latest time an activity can finish without delaying the project.
- Latest start time (LS) LF activity duration.

The float time for an activity is the time between the earliest (ES) and the latest (LS) start time or between the earliest (EF) and latest (LF) finish times.

During the float time, an activity can be delayed without delaying the project finish date.

The critical path is the longest path of the network diagram. The activities in the critical path have an effect on the deadline of the project. If an activity of this path is delayed, the project will be delayed.

In case if the project management needs to accelerate the project, the times for critical path activities should be reduced.

Step 6: Critical path diagram to show project progresses

Critical path diagram is a live artifact. Therefore, this diagram should be updated with actual values once the task is completed.

This gives more realistic figure for the deadline and the project management can know whether they are on track regarding the deliverables.

#### Advantages of CPM:

## The important advantages of CPM technique are:

- 1. It helps in ascertaining the time schedule of activities having sequential relationship.
- 2. It makes control easier for the management.
- 3. It identifies the most critical elements in the project. Thus, the management is kept alert and prepared to pay due attention to the critical activities of the project.
- 4. It makes better and detailed planning possible.

#### **Limitation of CPM:**

- 1. CPM operates on the assumption that there is a precise known time that each activity in the project will take. But, it may not be true in real practice.
- 2. CPM time estimates are not based on statistical analysis.
- 3. It cannot be used as a controlling device for the simple reason that any change introduced will change the entire structure of network. In other words, CPM cannot be used as a dynamic controlling device.

## What is PERT? Explain. (06 M)

## Project Evaluation Review Technique (PERT)

In project management, Project Evaluation Review Technique or PERT is used to identify the time it takes to finish a particular task or activity. It is a system that helps in proper scheduling and coordination of all tasks throughout the project. It also helps in keeping track of the progress, or lack thereof, of the project. In the 1950s, Project Evaluation Review Technique was developed by the <u>US Navy</u> to manage the Polaris submarine missile program of their Special Projects Office.

Knowing the time it would take to execute a project is crucial as it helps project managers decide on other factors such as the budget and <u>task delegation</u>. No matter how big or small a project is, estimates can be too optimistic or pessimistic, but using a PERT chart will help determine more realistic estimates.

## **Creating a PERT Chart**

A flowchart is used to depict the Project Evaluation Review Technique. Nodes represent the events, indicating the start or end of the activities. The directorial lines indicate the tasks that need to be completed, and the arrows show the sequence of the activities.

There are four definitions of time needed to finish an activity:

• Optimistic time – The least amount of time to complete a task

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- Pessimistic time The maximum amount of time to complete a task
- Most likely time Assuming there are no problems, it is the best estimate of how long it would take to complete a task.
- Expected time Assuming there are problems, it is the best estimate of how long it would take to complete a task.

## Here are several terms used in a PERT chart:

- Float/Slack Refers to the amount of time a task can be delayed without resulting in an overall delay to other tasks or the project
- Critical Path Indicates the longest possible continuous path from the start to the end of a task or event
- Critical Path Activity Refers to an activity without slack
- <u>Lead Time</u> Refers to the amount of time needed to finish a task without affecting subsequent tasks
- Lag Time The earliest time by which a successor event can follow another event
- Fast Tracking Refers to handling tasks or activities in parallel
- Crashing Critical Path Shortening the amount of time to do a critical task

## To implement a PERT chart:

- Identify the different tasks needed to complete a project. Make sure to add these in the right order and indicate the duration of each task.
- Create a network diagram. Use arrows to represent the activities and nodes as milestones.
- Determine the critical path and possible hack.

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