

III-I Entrepreneurship and Management & Smart Technology

Full Marks: 80

Time- 3 Hrs

Answer any five Questions including Q No.1 & 2  
 Figures in the right hand margin indicates marks.

1. Answer **All** questions 2 x 10
  - a. List any five entrepreneurial support agency. 2
  - b. What is a preliminary project report? 2
  - c. Write the importance of technology in product selection. 2
  - d. What is 'controlling' in management? 2
  - e. What do you mean by break even point? 2
  - f. What are different types of communication? 2
  - g. What do you mean by internet of things? 2
  - h. What is personal protective equipment(PPE)? 2
  - i. Define entrepreneurship. 2
  - j. Write the difference between patents and copyrights? 2
  
2. Answer **Any Six** Questions 5X6
  - a. What is a startup? Give an example of a successful startup. Explain how it is different from traditional enterprises. 5
  - b. What are the characteristics of an entrepreneur? 5
  - c. Explain different styles of leadership. 5
  - d. Explain the concept of 4P's in marketing management. 5
  - e. What is Maslow theory of motivation? 5
  - f. Write the components of IOT. 5
  - g. Write the features of Payment of Wages Act 1936. 5
  - h. What are the criteria for final product selection. 5
  3. Explain sole proprietorship form of business. Write its advantages and disadvantages. 10
  4. Explain the role of science and technology parks. 10
  5. Write the functions of financial management. 10
  6. Explain the relationship between peers, superiors and subordinates. 10
  7. Explain in details the functions of management. 10
  8. Explain the application of IOT in smart healthcare and smart agriculture. 10

# 1) Entrepreneurship and management & smart technology.

a) List any five entrepreneurial support agency.

Ans: The five entrepreneurial support agency are:

- (i) DIC (District Industries Centre)
- (ii) NSIC (National Small Industries Corporation)
- (iii) OSIC (Odisha Small Industries Corporation)
- (iv) SIDBI (Small Industries Development Bank of India)
- (v) NABARD (National Bank for Agriculture & Rural Development)

b) What is a Preliminary Project report?

Ans: The Preliminary Project report is a report on the formulation of the investment proposal. Investment decision are taken based on the details incorporated in the study, so feasibility is prepared only on the formulation and investment decision making.

c) Write the importance of technology in product selection.

Ans: Selecting the right technologies to incorporate in new products is a particularly challenging aspect of new product definition and development. While newer advanced technologies may offer improved performance, they also make the product development process more risky and challenging.

Q1) What is controlling in management?

Ans: The controlling means to which actual performance with the plans and to point out defective work. Some of the controls are quality control, cost control, material control and production control etc.

Q2) What do you mean by break even point?

Ans: BEP: Break even point means the level of output or sales at which no profit or loss is achieved. In other words, you've reached the level of production at which the costs of production equals the revenues from a product.

Q3) What are different types of communication?

Ans: - Verbal communication  
- Non verbal communication  
- Written communication  
- Listening " "  
- Visual communication

Q4) What do you mean by internet of things?

Ans: The internet of things is a network of internet connected objects able to collect and exchange data.

Q5) What is Personal Protective Equipment (PPE)?

Personal protective equipment is protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.

Q1) Define entrepreneurship?

Ans: Entrepreneurship is a process of action of an entrepreneur who is a person always in search of something new and exploits such ideas into profitable opportunities by accepting the risk and uncertainty with the enterprise.

Q2) Write the difference between patents and copyrights?

Ans: When you invent something new, something that is unique it is liable to receive a patent. But copyright is related to artistic work and intellectual property.

- A patent has a validity of 20 years, but copyright has a longer validity of a life time of the owner.

### Q3) Startup

- A startup is a company working to solve a problem where the solution is not obvious and success is not guaranteed.

- Startup is a company that is in the early stages of development in order to solve real-life problem through product or innovative service.

- A Innovation plays an essential role in the success of a startup, so all entrepreneurs should seriously consider this aspect.

Examples of startup are: Amazon, Ebay

- The only difference between a startup and a traditional business is that a startup is designed to scale/grow rapidly.

b) characteristics of entrepreneur

- (i) Vision: visualize market demand
- (ii) Knowledge: conceptual knowledge about all the technology.
- (iii) Desire to succeed: Has multiple goals.
- (iv) Independence: Independent to work and decision making.
- (v) Optimism: He knows how to exploit opportunities
- (vi) Value addition: Have a desire to create innovate and add value.
- (vii) Initiative:
- (viii) Goals setting: He sets realistic goals
- (ix) Problem solver: He is creative in problem solving.
- (x) Good Human relation: He is a good leader, motivator and team builder.
- (xi) Communication skill:

## 4 Different styles of leadership

Leadership is both a process and property.

The process of leadership is the use of non-coercive influence to direct and coordinate the activities of the members of an organised group towards the accomplishment of group objectives.

The style of leadership are:

(1) Autocratic or Authoritative system :-

It is also known as leader centered style. Under this style of leadership there is complete centralisation of authority in the leader i.e. authority is centered in the leader himself. He has all the power to take decisions. He designs the work-load of his employees and exercise tight control over them. The subordinates are bound to follow his order & directions.

### Advantages

- Autocratic leadership style permits quick decision-making.
- It provides strong motivation and satisfaction to the leaders who dictate terms.
- This style may yield better results when great speed is required.

### Disadvantages:

- It leads to frustration, low moral and conflict among subordinates.
- Subordinates tend to shirk responsibility and

## Q. Democratic style:

Under this style, a leader decentralises and delegates high authority to his subordinates. He makes a final decision only after consultation with the subordinates. Two-way communication channel is used. While delegating a lot of authorities to subordinates, he defines the limits within which people can function. Democratic leaders have a high concern for both people and work.

### Advantages

- Exchanges of ideas among subordinates and leaders improves job satisfaction and morale of the subordinates.
- Human value gets their due recognition, which develops positive attitude and reduces resistance to change.

### Disadvantages:

- Democratic style of leadership is time consuming and may result in delays in decision making.
- It is less effective if participation from the subordinates is for name sake.

## Q. 4P's in Marketing Management

### 4P's

- Price
- Product
- Place
- Promotion

Price: Price is the cost consumers pay for a product. Marketers must link the price to the product's real and perceived value, but they also must consider supply costs, seasonal discounts, and competitors' prices. In some cases, business executives may raise the price to give the product the appearance of being a luxury. Alternatively, they may lower the price so more consumers can try the product.

Product: Product refers to a good or service that a company offers to customers. Ideally, a product should fulfill an existing consumer demand. Or a product may be so compelling that consumers believe they need to have it and it creates a new demand. To be successful, marketers need to understand the life cycle of a product, and business executives need to have a plan for dealing with products at every stage of their life cycle.

Place: When a company makes decisions regarding place, they are trying to determine where they should sell a product and how to deliver the product to the market. The goal of business executives is always to get their products in front of the consumers that are most likely to buy them.

Promotion: Promotion includes advertising, public relations, and promotional strategy. The goal of promoting a product is to reveal to consumers why they need it and why they should pay a certain price for it.



## Q1 Maslow theory of Motivation

Abraham Maslow's Motivation theory is based on the human needs. These needs are classified into a sequential hierarchy from the lowest to highest order as five need clusters

### 1. Physiological Needs

- These needs are of the lowest-order and most basic needs of human beings. These involve satisfying fundamental biological drives, such as the need for food, air, water, cloth & shelter.
- These needs exert tremendous influence on human behaviour. Entrepreneur also being a human being has to meet his physiological needs for survival. Hence he/she is motivated to work in the enterprise to have economic rewards to meet his/her basic needs.

### 2. Safety and security needs :

The second level of need in Maslow's hierarchy is emerged once physiological needs are met. Safety needs involve the need for a secure environment, free from threats of physical and psychological harm. These needs find expression in such desires as economic security and protection from physical dangers.

### 3. Social Needs :

Man is social animal. These needs, therefore refer to belongingness or affiliation. All individuals want to be recognized and accepted by others

like friendship. Family sense of connection. Likewise an entrepreneur is motivated to interact with fellow entrepreneurs, his employees & others.

#### 4. Esteem Needs:

These needs refers to self-esteem & self-respect. These include such needs that indicate self-confidence, achievement, competence, knowledge, and independence. In case of entrepreneurs, the ownership and self-control over enterprise satisfies their esteem needs by providing them status, respect reputation and independence.

#### 5. Self-Actualization:

The final step under the need hierarchy model is the need for self-actualization. This refers to self-fulfillment. An entrepreneur may achieve self-actualization in being a successful entrepreneur.

#### 6. Components of IOT.

Here 4 fundamental components of IOT system:

##### (i) Sensor/Devices

First, sensors or devices help in collecting very minute data from the surrounding environment.

All of this collected data can have various degree of complexities ranging from a simple temperature monitoring sensor or a complex but video feed.

A device can have multiple sensors that can

bundle together to do more than just sense things

For example, our phone is a device that has multiple

Sensors such as GPS, accelerometer, camera but our phone does not simply sense things.

### (ii) Connectivity:

- Next, that collected data is sent to a cloud infrastructure but it needs a medium for transport.
- The sensor can be connected to the cloud through various mediums of communication & transports such as cellular networks, satellite networks, Wi-Fi, Bluetooth, WAN.
- Every option we choose has some specifications and trade-offs between power consumption, range & bandwidth. So choosing the best connectivity option in the IoT system is important.

### (iii) Data Processing:

Once the data is collected and it gets to the cloud the software performs processing on the acquired data.

- This can range from something very simple, such as checking that the temperature reading on devices such as AC or heaters is within an acceptable range. It can sometimes also be very complex, such as identifying objects using computer vision on video.

### (iv) User interface:

Next, the information made available to the end-user in some way. This can be achieved by triggering alarms on their phones or notifying through texts or emails.

Also a user sometimes might also have an interface through which they can actively check in on their IoT system. For example, a user has a camera installed in his house, he might want to check the video recordings and all the feeds through a web server.

Q6 Features of Payment of Wages Act 1936

(i) Obligations of Employers:

Every employer is responsible for the payment of wages to all the employees that he employs. Additionally, apart from the employer, all the person so named person so responsible to the employer/ The person so nominated shall also be responsible for such payment.

(ii) Wage period:

Every person responsible for wage payment shall fix periods in respect of which such wages shall be payable. No wage-period shall exceed one month.

(iii) Time & mode of payment of wages:

Every establishment having employees in excess of 1000 person shall pay the wages before the expiry of the 10th day. All other employers shall make the wage payment by the expiry of 5th day.

(iv) Deductions from wages:-

Employers shall ensure that wages are paid to all employees without deduction of any kind except those authorized by or under this act.

Deduction includes the reduction of wages from the following:

- Fines
- Absence from duty etc.

Final Product Selection:

Idea Generation:

Product ideas or investment opportunities come from different sources such as business/financial newspaper, research institutes, consulting firms, natural resources, universities, competitors etc.

- The starting point for idea generation could be a simple analysis of the business strengths and weakness. Ideas could also be generated through brainstorming, desk research and various types of management consensus procedures.

Evaluation:

Screening of the product ideas is the first step in evaluation. Such criteria as the potential value of the product, time, money and equipment required fitting of potential product into the business's long range sales plan and availability of qualified people to handle its marketability need be thoroughly considered.

Choice: A choice is made of product which has been found to be commercially viable, technically feasible and economically desirable.

At this stage, necessary machinery is set in motion.

### 3) Sole Proprietorship

- A sole proprietorship has one owner who has unlimited liability for the business.
- Here the owner is a single owner.
- Here all profit or loss goes to the sole owner.
- The owner has unlimited liability regarding any decision.
- Here the owner is taxed on his personal income and profit from the company.

#### Advantages:

- Swift decisions:- A sole proprietor has complete responsibility in terms of making business decisions. It results in faster decision making for the business as there is no need to consult multiple parties for every minor issue.
- Confidentiality:- A sole proprietor can keep all business related information to themselves as the business's only decision maker. The law does not bind them to make the accounts of a sole proprietorship public.
- Profit sharing:- A sole proprietor has complete ownership of profits arising from business operations. They are not obligated to share profits with anyone else.
- Fulfilment:- Since a sole proprietor is responsible for both risks & rewards of their business, even a minor success can give a greater feeling of pride & satisfaction than other business forms.

## Disadvantages :-

### → Lack of Resources:

It is challenging to raise vast amount of capital in a sole proprietorship compared to a partnership or company. This form of business runs mainly on personal saving and borrowings made by its owner.

### → Dependence on Owner:

The owner & their business are a singular entity in a sole proprietorship. While this has several advantages, the continuity of this form of business depends solely on the owner's well being.

### → Unlimited Liability:

As the proprietor cannot pay debts arising out of business from its assets, his/hen personal property is also at stake. This results in sole traders taking zero or very minimal risks to ensure the survival of the business.

### → Management:

The proprietor has to perform most or all the activities related to the business like purchase, client, relationships, sales, marketing, accounting etc. They may employ others to help in business operations, but limited finances may prevent the owner from getting full-time staff and give them attractive remuneration.

## 5. Functions of financial Management

### 1. Estimation of capital requirement:

A finance manager has to make estimation with regards to capital requirements of the company. This will depend upon expected costs and profits and future programmes and policies of a concern. Estimation have to be made in an adequate manner which increases earning capacity of enterprise.

### 2. Determination of capital composition:

Once the estimation have been made, the capital structure have to be decided. This involves short-term debt equity analysis. This will depend upon the proportion of equity capital a company is processing and additional funds which have to be raised from outside parties.

### 3. Choice of sources of funds:

For additional funds to be procured, a company has many choices like

- a. Issue of shares and debentures
- b. Loan to be taken from banks and financial institutions
- c. public deposits to be drawn like in form of bonds.

Choice of factor will depend on relative merits and demerits of each source and period of financing:



#### 4. Investment of funds:

The finance manager has to decide to allocate funds into profitable ventures so that there is safety of investment and regular returns is possible.

#### 5. Disposal of surplus:

The net profit decision have to be made by the finance manager, this can be done in two ways:

a. Dividend declaration: It includes identifying the rate of dividends & other benefits like bonus.

b. Retained profits - The volume has to be decided which will depend upon expansional, innovational, diversification, plans of the company.

#### 6. Management of cash:

Finance manager has to make decisions with regards to cash management. Cash is required for many purposes like payment of wages bills, payment to creditors, meeting current liabilities. etc.

#### 7. Financial controls:

The finance manager has not only to plan, procure and utilize the funds but he also has to exercise control over finances. This can be done through many techniques like ratio analysis, financial forecasting, cost and profit control etc..

## 6. Relation between peers, superiors & subordinates

It is always an experience to interact with the peer, superior and subordinate groups. All the three groups of people give a different feel and learning, when we interact with them. All the three groups are important and very much existent in all areas of life.

### Peers :

The first category will always be peers because we respond and reciprocate to them very easily and very easily. They are typically the same level as us either in intelligent quotient or status or family structure or in any other way at par with us. We normally tend to be comfortable with them in terms of taking and interacting. One more reason of a person being comfortable with peers is they have similar problems and they empathize very well with each other. For example colleague in office, friends, cousins etc.

### Superiors :

The second category is superiors. The teachers, mentors, bosses, family etc generally fall in this category. They are the ones who are higher than us as far as the knowledge or experience or intellect quotient or relationship goes. They expect a certain kind of respectful treatment from us, while we deal with them. We normally tend to take time to interact with them directly; more so particularly because they also have an expectation

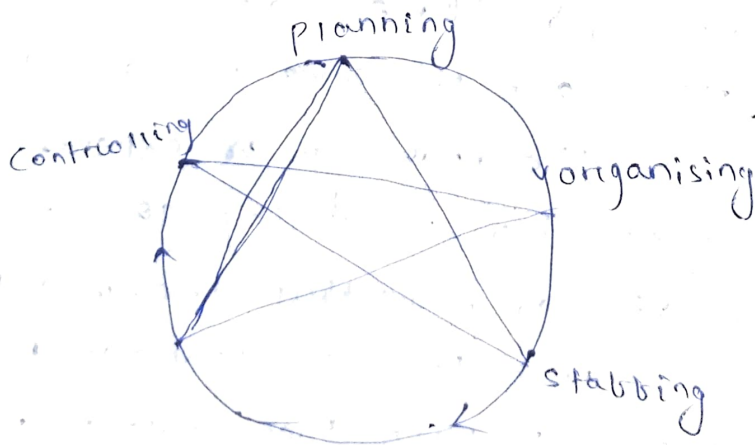
Barrier to break binds with us. They are the ones whom you learn effortlessly because we know that they know more than us. For example uncles, aunts, bosses, mentors etc.

Subordinates:

The third category opens up the scope of being a mentor to others, as well as taking work from them or helping them to cope up. They are lesser either by age, experience, knowledge or relationship and that's why we feel good dealing with them and sometimes even show them our seniority. They are the ones who need our reciprocation for their growth but still our responses to them are important; If we have to take work from them or they are in our social circles or fall in as a team to achieve targets in professional fronts.

## 7) Function of Management

Management is an executive function, which is mainly concerned with carrying out the policies laid by the administration.



1. Planning: Planning means "thinking before doing." Before actual work is started, it is decided that what is to be produced, how much is to be produced, how to be produced when to be produced & who are to produce it. The planning should aim at elimination of wastage of material, idleness of men, machinery & capital.
2. Forecasting: It is concerned with the estimation of quantities, the sales forecast, cost, finance problem, capital expenditure, profit or loss etc.
3. Organising: When complete planning is done the next step is to arrange the men, material, money for actual execution of manufacture. This function consists of material organisation and human organisation.
4. Directing: The person, who directs must have dynamic leadership and must guide the subordinates. The staff should be made conversant with the standard operating procedures.
5. Motivating: The function of the motivating is to find out the motives of work in a man and then he should be encouraged to do work by keeping his moral high.
6. Co-ordinating: The task of co-ordination is to integrate and harmonise the workers to achieve a common object. This is achieved by the skill of manager or supervisor etc.
7. Controlling: The controlling means to which actual performance with the plans and to point out defective work. Some of the controls are quality

control, cost control, Material control and production control etc.

8. Communication: This function transmits the informations and instruction to employees, customers, suppliers, share holders, & general public.
9. Leadership: All the managers are supposed to have the quality of leadership, as they are the leaders of the concern.
10. Decision Making: This is the most important function of the required to take decisions very frequently and the efficiency of the concern, loss or profit etc are affected by these decisions great amount of attention is required to be paid to this function.

### 8/ Application of IOT

- Smart healthcare systems today incorporate around-the clock real time data streaming, medication reminders and real time medical diagnosis, all of which reduce the need for hospital visits.
- IOT is sometimes referred to in the healthcare industry as the internet of medical things (IOMT). It consists of any and all medical devices, patient monitoring tools, wearables and other sensors that can send signals to other devices via the internet. These tools generate massive amounts of data that must be stored, integrated and analyzed in order to generate actionable insights for chronic disease management and acute

patient care needs.

Predicting patient deterioration or infection in the inpatient setting requires continuous feedback from bedside devices, while home monitoring tools such as Bluetooth enabled blood pressure cuffs, scales & pill bottles can keep patients adherent to chronic disease management protocols outside of the clinic.

Smart Agriculture:

Smart Agriculture is an often overlooked business case both the internet of things because it does not really fit into the well known categories such as, health, mobility or industrial. Due to the remoteness of the agriculture operations and the large numbers of livestock that could be monitored the internet of things could revolutionize the way farmers work. But this idea has not yet reached large scale attention. Smart Agriculture will become the important application field to export the agricultural products to different countries.

IoT will further extend and amplify this impact. With IoT, farmers can monitor and manage every tiny detail - from the moisture, nutrient & acidity contents of soil & individual plants to the presence of pests and local weather patterns to the health and well being and minute-to-minute movement of cattle. As these elements become connected farmers stand to gain huge insights from Big data analytics that enable better decisions.

## 41 Role of science and technology park

To enable these goals to be met, a science park stimulates and manages the flow of knowledge and technology amongst universities, R&D institutions, companies and markets. It facilitates the creation and growth of innovation based companies through incubation and spin-off processes and provides other value add.

By aiding the growth of tenant companies, technology parks play a significant role in the development of local economies. They help create new jobs, attract foreign capital and increase local & national competitiveness.

As already mentioned successful economic development today relies on the timely transfer of scientific achievement into the practical usage.

Certain number of works deals with the key role of science for the development of modern society. Even though it has been underestimated for the long time, recent development of modern society. Even though it has been grown of stronger cooperation between science and industry. All the performed basic and advanced researches should be transferred into practice through the activities of development as the other important pillar of R&D processes.