

Unit - II

Definitions of Engy / Tech / Terms / Objects / Process (04 Marks)

Paragraph writing (10 Marks)
(200 - 300 words)



How to define an engineering object / process
A definition helps to understand any topic or product in a simple but effective manner. Definition provides sound information about any topic of the product. While providing definition one has to take care about following things

- ① Try to imagine that product / term / process
- ② Use simple words and short sentences.
- ③ Be specific.
- ④ Provide information about major parts / stages / etc (if any)
- ⑤ Provide information about main function / output

Communication
Communication is a two-way process of sharing information between two or more than two persons which is followed by understanding and feedback.

1. E-Business:- It is called electronic business. It has transformed traditional business operation into IT driven business operation.
2. Email:- It is called electronic mailing. It helps in sharing information from any corner of the world. It helps in sending, receiving, retrieving, forwarding and storing any messages through internet.
3. E-Commerce:- It is electronic commerce. It maintains a detailed account of commerce and industry on internet. It has a commercial utility.
4. M-commerce:- It is called mobile commerce. With the introduction of mobile phones and it's various application now a days people prefer ^{to} transaction through these mobiles.
5. Combustion:- It is a ~~chemical~~ chemical process accompanied by release of ^{heat} and light energy.
6. Entropy:- It is the measure of disorder or randomness.
7. Inertia:- It is the property of a body that tends to resist any change in it's state of rest or uniform motion in a straight line.
8. Oxidation:- It is the process which involves either addition of oxygen or removal of hydrogen or loss of electrons.

9. Acceleration:- It occurs when there is an increase in the velocity of a moving body the rate of increase of velocity is called acceleration.

10. Electrolyte:- It is the solution of an ionic compound in water, ionic compound that conducts electricity due to presence of positive and negative ions.

11. Electrodes:- These are conducting solid materials used in electrolyte cell and electrochemical cell to conduct electric current.

12. Speed:- It is the rate at which an object moves. It is a scalar quantity which has size or magnitude only.

13. Mortar:- It is a mixture of sand, lime, cement and water which is used for joining bricks or plastering.

14. Refrigeration:- It is the process by which heat is extracted from certain object and maintained at the lower temperature.

15. Force:- Rate of change of the momentum of the body.

16. Ion:- It is a group of atoms that has acquired an electronic charge by losing or gaining one or more electrons.

17. Mass It is amount of matter in an object.
18. Electron It is negatively charge atomic particles.
19. Catalyst :- It is a substance that speeds up the activation energy of a reaction.
20. Modem :- A modem modulation modulates carrying digital signal from a digital device to analog signals with the help of telephone line.
21. Demodulation :- It is a process of converting analog data to digital data through modem.
22. pH value It is a scale which is used to represent hydrogen ions concentration.
23. Ductility :- It is ~~the~~ a measure of a metal's ability to get stretched without breaking with application of stress.
24. Malleability :- It is a metal's ability to form thin sheets.
25. Velocity :- It is the rate of motion of a body along a particular direction. Velocity of a moving body gets changed with the change in its speed or its direction of motion or both.
26. Viscosity :- The property by virtue of which liquid opposes relative motion between its different layers is called viscosity.

27. Enthalpy:- It is measure of energy of the chemical system which is inclusive of the energy due to it's volume.

28. Crystallization:- It is a process that involves removal of solid from solution by increasing it's concentration above the saturation point in such a manner that excess solid gets separated from in form of crystals.

29. Gauss law According to this law, the total electric flux through a closed surface is equal to the charge enclosed by that surface.

30. Atom:- It is ^{the} smallest particle of a substance that can take part in a chemical reaction. It may or may not have independent existence.

31. Brazing:- It is a ~~press~~ process of joining two similar or dissimilar metals with the help of fusible alloy.

32. Distillation:- It is a process that separates liquid from solid.

33. Drilling:- It is operation of making holes in wood, wall or metal by a rotating tool.

34. Force of Friction:- The force that comes into action when one body slides or rolls on the surface of another body and acts in a direction parallel to the surfaces in contact and opposite

to the direction of motion of the body.

35. Gravity:- It is the Earth force that draws all the body towards the centre of the earth.

36. Gravitation:- The force with which two objects attract each other.

37. Network A number of computers are connected together to share information and hardware.

38. Computer Computer is an electronic device which is very useful in storing and retrieving data, information and knowledge. It process data and can be programmed with words.

39. Multimedia:- It is a combination of various modern media tools like computer, LCD, audio-video tools, animation, music and so on. These tools put together to transfer a message with the help of LCD, computer and internet.

40. Fax Machine:- It is a device that sends or receive printed pages or images through telephone line.

41. Radioactivity:- The spontaneous separation of an atomic nucleus to produce stable nuclei with continuous emission of radiations.

42. Tele/Video Conference: It is a very popular medium of audio-visual communication. One can share information from any corner of the world and organize conference without meeting together in the same room.

43. Isotopes: Atoms of same element having same atomic number and therefore identical chemical properties having different mass number are called isotopes.

44. DTP (Desk Top Publishing): It is an advancement of word processing, it is a very easy way to produce multiple copies of any document in no time.

Q. What is a paragraph and what are the good qualities of good paragraph.

The word paragraph means derived from a French word *Paraphras* *Paragrapphas* it means a marginal stroke. A paragraph is an outcome of a passage. Paragraph is based on any topic or issue and provides all the necessary information and details in a very brief manner. Following are the qualities of good paragraph.

1. A suitable Title/Heading :- A good para should have an appropriate title that should be catchy and contains the main objective of the para. It should be of less words but should have a good impact.

upon readers.

2. Central Ideas/Theme :- A good para should have a central idea or theme to which sub-ideas or sub-themes should be associated.
3. Conciseness :- A good para should be brief. Brevity is the soul of any paragraph.
4. Continuity :- A good para should have a continuous flow of ideas, thoughts and information. Continuous flow helps in keeping interest of readers alive.
5. Good language :- It should have simple familiar words and short sentences. Language should be toned up. It should be correct and fitless.

Q Write a paragraph (200 - 300 words)

① Aim of Education.

Education is must for overall development of personality. Education helps to bring positive changes in overall growth of any society or nation as well. Education is a great sign of a civilized society. No Education, No Personal and Professional development. Education has many fold objectives.

According to Bertrand Russell, The famous British Author, Education has mainly twofold (two) objectives. First is to impart knowledge and second is to develop skills. Both are interlinked. Knowledge without skills has no meaning.

Similarly skills without knowledge are useless. The main objective of education can be achieved by acquiring ~~to~~ of both.

Study of science is very necessary to develop skills and knowledge as well. Science helps us to produce and invent new things. It even helps us to prepare provide all the materials to construct an atom bomb. But it does not tell us whether use of atom bomb is beneficial for mankind or not. Therefore, along with the study of science it is very necessary to other subjects like History, Literature, Psychology, Sociology and so on. So Aim of education can be achieved by developing both knowledge and skills in a very +ve environment.

(2)

Ergonomics. It is a branch of science that deals with study of relationship between Men and his working environment. It is a fact that environment has a great impact upon working. Environment helps a person to contribute his / her share in a +ve or -ve direction.

Over the years Men has invented such machines and tools that are bigger, better, more powerful, more fast and accurate than Men. It has made Men to feel very little before his own creation / invention. Study of ergonomics may be very use in developing and designing such tools and machines through which due regard and respect could be given to a

men's abilities and potentials.

Between man and machine relationship, man is considered a very weak link. Ergonomics is very beneficial in narrowing down gap between man and machine relationship. Advancement of Ergonomics may be very fruitful to the industries and organization for providing a better and healthy and working environment to their employees.

③ Women Rights Movement.

In the middle of 19th century a movement was started in Europe and soon it became very popular. This movement talks about upliftment of status of women in the society. Before this movement, condition of women was very deplorable and pathetic. Their rights were exploited. They were deprived of various rights like right to vote, right to get education, right to take part in social activities and they were not given equal positions in the personal and professional setting.

Even there are societies and nations where status of women is not so charming. In remote parts of the world most of the work and contribution of women is often neglected.

In India, before freedom rendition of women was not so healthy. They were victims of various social evils like as Dohaj Partha, Sati Partha, Bal Virha, Parda Partha and so on. They were restricted to their household duties. Leaders like Raja Rammohan Roy, Dayanand Saraswati

Swami Vivekanand and so on, did a lot to raise the status of women in the society.

After freedom, condition Indian women has improved a bit, now in modern India women are working ~~hard~~ and neck and neck are working with same level of energy and interest with their male counterparts.

Indian women are marching successfully in all walks of life. They are contributing significantly in overall social and economical development of the society and nation as well. Women like Mother Teresa, Saina Mirza, Saena Nahuval, Manjom, Sunita Williams, are few names who are bringing glory of women empowerment. No society can achieve progress and development without giving due space and regards to women.

④ Advertising Industry In India

Unit - 4

a What is an advertisement? What are the qualities of good advertisement?

Advertisement are very useful marketing tools for manufacturers. Adts. are very helpful for the buyers to select and buy any product of their choice. It helps them to choose good quality products at reasonable rates. Through adts a customer

can collect all the necessary information and details about any product. Not only customers but manufacturers also get benefitted by adts. They can make their products popular and can increase their volume of profit.

Adts have following advantages

- ★ To make customers aware about any product
- ★ To help them to buy any product of their choice
- ★ To increase ~~sales~~ ^{sales} and promotion of any product
- ★ To enable the buyers to buy good quality products.

Adts industry in India is at early stage of its growth. Before freedom there was no industry in existence like adts industry. After freedom, govt of India introduced various ~~plans~~ and policies for economic reforms. It helped in the establishment new industries. These new industries wanted to market and promote their products. It gave a boost to Indian adts industry.

Now, Indian adts industry is blooming and is emerging as a fast developing industry of the world. It is full of resources, talents and potentials. It is competing with the highly developed industries of the world. It has opened endless opportunities to our millions of young talented professionals.

(5)

5 Year Planning In India

OR
Economic Reforms In India

OR
Economic Policy of India

India is a great country. It is most ancient countries of the world. It has a rich culture, tradition and heritage. India was ruled by the Britishers for more than 200 years. On 15th August 1947, India got its freedom. After that govt of India wanted to have economic freedom. To achieve govt. to India launched it's 1st five year plan in 1951. After that a good no. of plans, policies and programs were started by govt of India. All these plans look good on papers but they prove to be failure in execution.

The main objective of all plans and policies is to bring self-reliance, providing employment establishing industries and increasing production of food grain, still this objective is looking very far to achieve. The main problem behind the failure of all the plans and policies is our growing population. Our population is increasing day by day. For this huge population, we need more food, clothes, and shelter. People are not aware about the problems which are related with growing population. People do not know benefits of small family. Rate of literacy is very low. So we need a strong family planning program to check and control

- # letters are useful in expanding business activities
- # They promote sound understanding and healthy relationship.
- # They enable to resolve problems and to take a final decision.
- # To provide^{share} call the necessary details in concise, correct and complete manner.
- # To develop a goodly - goody image of any organization.
- # To obtain feedback or reply from it's readers.
- # To register any complaint in a very polished manner.
- # For maintaining track of record and use it for purpose of reference.

Q What is AIDA theory of letter writing?

Letters are effective tools of business correspondence, letter writing is an art that can be mastered by regular practice. AIDA theory is very helpful in achieving set objectives of a particular letter.

As per this theory A stands for attractiveness, I = Interesting, D = Desirability and A = Action oriented.

1. Attractiveness A letter should have attractiveness, it should be able to draw the attention of it's readers. Language, structure, style and content of a letter should be effective and attractive.
2. Interesting It should arouse curiosity and generate interest among it's readers.

subject, language, content and theme of the letter should be enough.

Desirability: There should be willingness of sharing information between sender and receiver of the letter.

Action Oriental :- A letter should enable it's readers to take action after going through a letter. It should make them to understand and provide a suitable reply or feedback.

Explain characteristics of a good business letter?

Letters are of immense importance. In modern times, organizations run a separate department for exchange of text written information known as Business correspondence department. A good letter has many fold objectives and benefits like as:-

1. Clarity and completeness: A letter should have clarity. It means that proper planning and preparation must be done well in advanced before drafting any letter it's objectives must be known to it's writer. At the same time, a letter should have complete details and info.

2. Suitable style and Structure: There is no fix style or structure to write any letter. Selection of any style or structure depends upon subject, importance, nature and objective of a letter.

growing population. This problem has given birth to many other problems like unemployment, pollution and so on.

In 1981, govt of India introduced economic reform policy. It opened the doors for LPG (Liberalization, Privatization and Globalization). After that Indian economy has emerged as the most powerful economies of the world. Now Indian economy is showing very positive sign of fast development and progress. Still in remote parts of our country people are not having basic facilities like transportation, health, education, electricity, drinkable water and so on. Our govt should come forward to resolve all these problems and provide a better place to live in. We have to raise living standard of common man.

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