

READING (GENERAL TOPIC)

Technical English promotes the basic skills and enhances the ability of young Engineers and Technocrats to read and comprehend engineering and technology texts. The main objective of the Technical English is to enable the learners use English for technical communication. The Engineers need a specific set of language skills for their success in education and career. It fosters their ability to write convincing job applications and effective reports, develop their speaking skills to make technical presentations, participate in group discussions, and also to strengthen their listening skill which will help them comprehend lectures and talks in their areas of specialization. Technical English provides opportunities for students to improve their Listening, Speaking, Reading, and Writing (LSRW) skills in English. The success mantra of an engineer in the current era relies on profuse technical knowledge and proficient communication skills as well.

This Technical English book has been designed for Engineers and Technologists who aspire to improve their LSRW skills in English. The textbook provides opportunities for learners to expand their abilities in all their skills. Each chapter is clearly and concisely explained with practice exercises. Each topic contains brief introduction and practice exercise for the learners to know the basics and to work out the exercise individually or collectively. The language used in this book is contemporary and applicable to all types of readers in English. The main objective focused in this book is to help the students to understand Technical English and to use their skills for meaningful communication and interaction. At the end, the learners will be able to read technical texts and write technical texts with ease. They will also be able to listen and comprehend lectures and talks in their area of specialization, and speak appropriately and effectively in varied formal and informal contexts.

Read the Following Short Passage

Anesthetics are drugs causing unconsciousness or insensibility to pain. Their use in modern medicine permit painless surgery during the simplest operation of a few minutes duration, to the most delicate operation lasting many hours. Anesthetics are divided into two broad groups; General anesthetics and Local anesthetics. General anesthetics can cause total unconsciousness in the patient by temporarily altering the normal activities of the central nervous system. Local anesthetics temporarily deaden the sensation on a particular or local area of the body. General anesthetics are usually administered to the patient in one of the two ways inhalation or intravenous injections. In the inhalation method the patient breathes a gas or vapour into his lungs. In the intravenous injection, the drug is put directly into a vein. Two drugs often used as general anesthetics in operations of short duration is the liquid vinethene, which causes rapid anesthesia, and trilene, which produces a light, pain killing effect. Trilene is usually combined with nitrous oxide and oxygen. Not all surgery requires that the patient be unconscious For minor operations, only restricted or local area of the body need be made insensible to pain; thus a local anesthetic is administered. The local anesthetic prevents sensations of pain from traveling through the nerves in the drugged area. Local anesthesia can be produced through three sites of injection. Infiltration is the injection of the drug into the tissues. Block anesthesia is produced by the

injection of the drug around the main nerves leading to the operating areas. These main nerves are blocked from transmitting sensory impulses. Spinal anesthesia results from the injection of the drug into the space surrounding the spinal cord.

a. Answer the following questions briefly

- i. What is the difference between 'general' and 'local' anesthesia ?
- ii. How does the local anesthesia work in the body of the patient ?
- iii. Explain the functioning of block anesthesia.
- iv. Explain how general anesthesia is administered to the patient ?
- v. Does the patient need to be unconscious in all types of surgeries ? Explain.

b. Say whether the following statements are 'true' or false'.

- i. Local anesthesia can cause total unconsciousness in a patient.
- ii. General anesthesia temporarily stops all the activities of the nervous system.
- iii. In block anesthesia, the main nerves in the operating area are blocked from transmitting pain.
- iv. Liquid vinethene is a drug used in local anesthesia.
- v. In local anesthesia, pain cannot travel through the drugged area.
- vi. Spinal anesthesia is a type of local anesthesia

