

Chapter 15: Advancements in Science

I. Assessment Zone:

Tick the correct option

1. b

2. a

3. c

4. c

5. b

II. Fill in the blanks:

1. Microscope

2. Edward Jenner

3. X-ray machine

4. Temperature

5. anesthesia

III. Mark the statements as True (T) or False (F).

1. F
2. T
3. F
4. T
5. T

IV. Answer in brief:

1. An antibiotic is a chemical secreted by some germs, which is capable of killing other germs.
2. We use a thermometer to measure temperature of a patient's body.
3. A microscope is used to see extremely tiny organisms
4. Three modern machines used to diagnose a disease are X-ray machine, CT scan and Ultrasound machines.

5. A French physician named Rene Laennec (1781-1826) invented the first stethoscope in 1816.

V. Answer the following questions:

1 The process of Pasteurization involves heating of milk at a very high temperature for a certain time period and then, immediately cooling it at a very low temperature. This technique is helpful in killing the germs and the milk thus treated, is germ free.

2 Edward Jenner found that the milkmaids infected with cowpox never contracted smallpox. To prove his theory, he inserted pus taken from a cowpox pustule and inserted it into an incision on a boy's arm. Jenner subsequently proved that having been inoculated with cowpox, the boy was now immune to smallpox. Based on this, he invented the first vaccine.

3 James Simpson was the first one to use chloroform in surgery. Chloroform makes a person unconscious. The early anesthesia used in surgery was chloroform.

4 The first stethoscope was invented in 1819 by a French physician named Rene Laennec. The instrument has a long tube with two earpieces and one chest piece which is placed on the chest. It amplifies the sound of the heartbeat so that it can be easily heard by the doctor. It helps a doctor in detecting abnormalities in breathing, etc.

5. Antiseptics are chemical agents that slow or stop the growth of germs on external surfaces of the body and help prevent infections. Joseph Lister, a British surgeon, had discovered the first antiseptic. He is now known as the Father of antiseptic surgery.