

UNIT -VIII : APPLIED BIOLOGY

VIII. APPLIED BIOLOGY**(2 x 2) + (1 x 4) = 8 Marks****ROOT POINTS**

1. **Applied biology** deals with the application of biology to human utility, health and welfare.
2. It has applications in Animal husbandry, Agriculture, Aquaculture, Pollution management, Synthetic preparation of Hormones, Vaccines, Genetherapy. Diagnosis of human ailments etc.,
3. It deals with various medical instruments, medical tests and their procedures like ECG, EEG, MRI Scan, CT scan etc.,
4. **Layers** are birds which are exclusively raised for the production of eggs. [IPE]
5. **Broilers** are birds which are raised only for their meat. [IPE]
6. **Hypophysation** (induced breeding) is an artificial breeding. [IPE]
7. **Vaccine:** A vaccine is a biological preparation that improves immunity to a particular disease.
8. **PCR** is Polymerase Chain Reaction that help early diagnosis of diseases like HIV. [IPE]
9. **Guardian Angel of cells Genome** is P⁵³ gene. [IPE]
10. **CT Scan** (Computed Tomography) is done by X-rays to scan body from Chin to Hips. [IPE]
11. **MRI Scan:** MRI means Magnetic Resonance Imaging. It does not use ionizing radiation.
12. **ECG** (Electro Cardio Graphy) is a procedure for recording electrical changes in the heart. [IPE]
13. **EEG** (Electro Encephalo Graphy) records the electrical activity of the brain. [IPE]
14. **Direct ELISA** Test is used to detect Antigens [IPE]
15. **Indirect ELISA** Test is used to detect Antibodies in the serum. [IPE]
16. **Insulin** is a protein hormone secreted by β cells of pancreas. [IPE]

FRUITY Qs OF IPE**(2 x 2) + (1 x 4) = 8 Marks**

1. Define the terms layer and broiler.
2. What is apiculture?
3. Explain the term hypophysation.
4. Mention any four fish by-products
5. How many amino acids and polypeptide chains are present in insulin?
6. Define the term 'vaccine'.
7. What is popularly called 'Guardian Angel of Cell's Genome'?
8. Discuss in brief about 'Avian Flu'.
9. Honey bees are economically important-justify.
10. Explain the different types of cancers.
11. Write about the procedure involved in MRI.
12. Write briefly about different waves and intervals in an ECG.