

SECTION – I**2. Write short answers to any EIGHT (8) questions :****16**

- (i) Differentiate between hydrophytes and mesophytes.
- (ii) What are osmoconformers and osmoregulators animals?
- (iii) How vasodilation differ from vasoconstriction?
- (iv) Define ecdysis or moulting, give its two stages.
- (v) Differentiate between troponin and tropomyosin.
- (vi) Give two functions of skeletal system.
- (vii) Define seed dormancy. Write its two significance.
- (viii) Define oviparous and viviparous animals.
- (ix) What is profundal zone?
- (x) How many biomes are present in the World, name any four of them.
- (xi) Differentiate between deforestation and reforestation.
- (xii) Define eutrophication, give its one effect upon animal life.

3. Write short answers to any EIGHT (8) questions :**16**

- (i) Differentiate between kinesis and taxes.
- (ii) Write the role of progesterone.
- (iii) What is Addison's disease?
- (iv) What is gene and its locus?
- (v) What is dihybrid cross?
- (vi) Write dominant and recessive trait.
- (vii) What are three possible ways to get a gene?
- (viii) Write the role of Lambda phage as a vector.
- (ix) Write any two uses of PCR.
- (x) What is Niche, explain according to Charles Eltan?
- (xi) What are decomposers?
- (xii) Write crustose lichens in xerosere.

4. Write short answers to any SIX (6) questions :**12**

- (i) Define growth and development.
- (ii) Define teratogens. Give two examples.
- (iii) Draw structural formula of nucleotide.
- (iv) Differentiate between leading strand and lagging strand.
- (v) Define transformation. In which bacterium it was discovered?
- (vi) What are cancer cells? How cancer cells can be distinguished from normal cells?
- (vii) What is meant by non-disjunction? Write its consequences.
- (viii) Differentiate between homologous and analogous organs.
- (ix) How the oxygen accumulation liberated during photosynthesis changed the environment of earth?

SECTION – II**Note : Attempt any THREE questions.**

5. (a) Give the homeostatic roles of liver in the form of a table. **4**
- (b) Define ecosystem. Discuss its components and their interaction. **4**
6. (a) Write down four phases in the repair process of a fracture. **4**
- (b) Write a note on genetic code. **4**
7. (a) Explain structure and function of forebrain in man. **4**
- (b) Write a note on algal bloom or eutrophication. **4**
8. (a) Write a note on identical twins and fraternal twins. **4**
- (b) Write a note on diabetes mellitus. **4**
9. (a) Describe the types of meristems. **4**
- (b) Explain the evidences of evolution by fossil record and comparative anatomy. **4**