

Biology (Subjective)**(GROUP-I)**

Time: 2:40 Hours

SECTION-I**2. Write short answers of any eight parts from the following:**

(8x2=16)

- i. What are terpenoids? Give two examples.
- ii. Draw diagrammatic representation of an enzyme – substrate reaction (Lock and Key Model)
- iii. How enzyme concentration affects the rate of enzyme action?
- iv. What are inhibitors? Give their types.
- v. Differentiate septate and non septate hyphae
- vi. Compare obligate parasites with facultative parasites.
- vii. Differentiate polyps and medusae.
- viii. How infestation is different from disinfestations?
- ix. What do you know about pinworms?
- x. Name the scales of fish.
- xi. The oxygen releases during photosynthesis comes from water, how you prove?
- xii. What is the importance of phosphorylation in energy driving reactions?

3. Write short answers of any eight parts from the following:

(8x2=16)

- i. What is biological method? Name its steps in order.
- ii. What is biological control? Give an example.
- iii. How outer membrane of mitochondria differs from inner membrane?
- iv. Why peroxisomes are called so?
- v. Write two characteristics of protozoa.
- vi. Give at least two examples of Dinoflagellates. Which pigments are found in them?
- vii. In which group, the giants of protist kingdom are included? Name any giant protist.
- viii. Why *pelomyxa palustris* may be the most primitive of all eukaryote-like forms?
- ix. How breathing is different from cellular respiration?
- x. What changes occur in animal during diving reflex?
- xi. What is brain haemorrhage? Give its preventive measures.
- xii. What is pericardium? Write its function.

4. Write short answers of any six parts from the following:

(6x2=12)

- i. How virion differs from prion?
- ii. What are plasmids? Give their role
- iii. Give two important features of Lycopsida.
- iv. Differentiate over topping and plannation.
- v. What are paraphyses? Give their function.
- vi. Compare homosporous with heterosporous.
- vii. Give the role of secretion in digestion.
- viii. How pepsinogen is converted into pepsin?
- ix. Differentiate herbivores and carnivores with example.

SECTION-II**Note Attempt any three questions. Each question carries equal marks:**

(8x3=24)

5. (a) How diseases can be controlled? Give preventive measures. (2+2=4)
- (b) Explain respiration in cockroach. Draw its labeled diagram. (2+2=4)
6. (a) Describe three main types of RNA. (4)
- (b) Discuss important features of ascomycota. (4)
7. (a) What are plastids? Discuss their types and functions. (1+1+2=4)
- (b) How digestion in Duodenum takes place? Write role of liver and pancreas. (1+3=4)
8. (a) Discuss the structure of a virion (4)
- (b) Define immunity. Discuss its types. (1+3=4)
9. (a) Describe habitat, occurrence and reproduction in Nostoc (1+1+2=4)
- (b) Sketch various steps of Krebs' cycle (2+2=4)