

BIOLOGY (Subjective) GROUP - II

Time: 02:40 Hours

Marks: 68

SECTION – I**2. Write short answers to any EIGHT parts.**

16

- (i) How yeast differs from other fungi?
- (ii) What is parosexuality? Give its importance.
- (iii) Write three general characteristics of animals.
- (iv) Name two animals in which hairs have become modified.
- (v) How water enters water vascular canals in echinoderm? Name that structure and its location on body side.
- (vi) What are two adaptations for parasitic mode of life in flatworms?
- (vii) Why do all biochemical reactions not follow the lock and key model?
- (viii) What are enzymes? Give their importance.
- (ix) How does enzymes accelerate the rate of metabolic reaction?
- (x) Why photosynthesis is called redox process? Write its equation.
- (xi) What is photosystem? Name its two parts.
- (xii) How would you identify starch and glycogen solution?

3. Write short answers to any EIGHT parts.

16

- (i) Define bioelements. Name the bioelements which occur in traces in human body.
- (ii) Distinguish the micromolecules and macromolecules.
- (iii) Give two functions of endoplasmic reticulum.
- (iv) Define cell. Who discovered the cell?
- (v) What are kelps? Give their structure.
- (vi) Differentiate the diatoms and dinoflagellates.
- (vii) How algae differ from plants?
- (viii) Define water blooms. What is their effect on animals?
- (ix) Differentiate the organismic respiration from cellular respiration.
- (x) What are tracheoles in cockroach and state their function?
- (xi) Name four parts of heart of fishes.
- (xii) Differentiate the osmotic potential and pressure potential.

4. Write short answers to any SIX parts.

12

- (i) Differentiate the phage virus and a prophage.
- (ii) What are plasmids? Give their importance for bacteria.
- (iii) How would you clarify microphylls and megaphylls?
- (iv) Why calyx and corolla are called non-essential reproductive parts of flower?
- (v) How ovules of gymnosperms differs from that of angiosperms?
- (vi) What are arthropyte plants? Give example.
- (vii) Write names and position of salivary glands in man.
- (viii) Where are the villi located? Give their role.
- (ix) How Sundew (Drosera) shows its insectivorous activity?

SECTION – II Attempt any THREE questions. Each question carries 08 marks.

5. (a) Suggest measures to conserve deteriorating environment of Pakistan. 04
(b) Air is better respiratory medium than water. Justify. 04
6. (a) Define lipids. Explain phospholipids with their structural formula. 01,02,01
(b) Describe different ways in which fungi are useful and harmful to human. 02,02
7. (a) What are lysosomes? If some lysosomal enzymes are absent, what happens? Explain it with examples. 01,03
(b) The digestive tract of a sheep is different from that of cats. How? 04
8. (a) Give biological classification of corn. Also write the importance of binomial nomenclature. 02,02
(b) How evolution of heart took place in vertebrates? 04
9. (a) Write characteristics and economic importance of cyanobacteria. 04
(b) Discuss and draw Calvin cycle. 04