

BIOLOGY

219-(INTER PART – II)

Time Allowed : 2.40 hours

PAPER – II (Essay Type)

GROUP – II

Maximum Marks : 68

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

16

- (i) Differentiate between ectotherms and endotherms.
- (ii) Why the leaves are said to be excretophore?
- (iii) Differentiate between protonephridia and metanephridia.
- (iv) Write two characteristics of collenchyma tissue.
- (v) Define phototactic movements with example.
- (vi) How callus is formed?
- (vii) What are palindromic sequences?
- (viii) Compare ex-vivo and in-vivo gene therapy.
- (ix) Write two adaptations for terrestrial ecosystem.
- (x) Differentiate between alpine and boreal forests.
- (xi) What is the importance of ozone layer?
- (xii) Differentiate between deforestation and reforestation.

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

16

- (i) Write down two uses of auxins.
- (ii) How communication across the synapse occurs?
- (iii) Define habituation. Give one example.
- (iv) Write down the mechanism of pollen tube evolution in spermatophytes.
- (v) What do you know about diploid parthenogenesis?
- (vi) What is oestrous cycle?
- (vii) Define gene and allele.
- (viii) Differentiate between autosomes and sex-chromosomes.
- (ix) What is a multifactorial trait? Give an example.
- (x) Define the term ecosystem.
- (xi) What is the difference between ectoparasite and endoparasite?
- (xii) Define grazing. What is the result of over grazing?

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

12

- (i) What is the difference between primary and secondary growth?
- (ii) What is discoidal cleavage?
- (iii) What is mitotic apparatus?
- (iv) Differentiate between necrosis and apoptosis.
- (v) Define Hardy-Weinberg theorem.
- (vi) What are analogous organs? Give an example.
- (vii) What is the difference between template strand and sense strand?
- (viii) What is point mutation? Give an example.
- (ix) What is membrane invagination hypothesis?

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

5. (a) Describe adaptations for thermoregulation in plants. 4
- (b) Describe nitrogen cycle in detail. 4
6. (a) Describe sliding filament model of muscle contraction. 4
- (b) Describe the process of translation in prokaryotes. 4
7. (a) Differentiate between instinctive and learning behaviour. 4
- (b) Write a note on ozone layer depletion. 4
8. (a) Write a note on vernalisation. 4
- (b) Define and explain test cross. 4
9. (a) Write a comprehensive note on aging. 4
- (b) Give evidences in support of evolution from comparative embryology and molecular biology. 2,2