

BIOLOGY**Paper-II**

Time: 3 Hours

Full Marks: 100

Instructions : (1) Answer any **five** questions.

(2) The figures in the right-hand margin indicate full marks for the questions.

1. (a) Describe the mechanism of reflex action. How does it differ from involuntary actions? 10
- (b) Describe the mechanism in human beings for getting rid of nitrogenous waste from their body. 10
2. How do plants transport water and minerals from the soil and the products of metabolic process to different parts of their body? 10+10=20
3. Differentiate the following with suitable examples : 5×4=20
 - (a) Autotrophic nutrition and Heterotrophic nutrition
 - (b) Binary fission and Multiple fission
 - (c) Mariculture and Aquaculture
 - (d) Acquired traits and Inherited traits
4. Describe the sexual mode of reproduction in flowering plants with suitable diagrams. 20
5. Write notes on the following : 5×4=20
 - (a) Tropism in plants
 - (b) Plant growth hormones
 - (c) Failure of fertilization of egg in woman
 - (d) Five kingdom classification of organisms
6. Justify the statement that 'very dissimilar looking structures evolved from a common ancestral design' with a suitable textbook example of artificial selection. 20
7. Write notes on any **two** of the following : 10×2=20
 - (a) Formation of fossils
 - (b) Structure of the human eye
 - (c) Water cycle in nature

8. Write brief notes on any **five** of the following:

4×5=20

- (a) The contribution of Carl Von Linne
 - (b) Tyndall effect
 - (c) The experiment of Stanley Miller and Harold Urey
 - (d) Manure and fertilizers
 - (e) Nervous tissue
 - (f) Osmosis
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