

2021

ZOOLOGY — HONOURS

First Paper

(Unit - I)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer **any five** questions :

2×5

- (a) Distinguish between protostomes and deuterostomes.
- (b) Write two differences between metamerism and pseudometamerism.
- (c) What is the difference between monogenea and digenea?
- (d) What is Chiastoneury?
- (e) Give the function of Tube-feet.
- (f) Differentiate between amniotes and anamniotes.
- (g) What is endostyle?
- (h) Differentiate between proteroglyphus and opisthoglyphus fang.

Group - A

Answer **any two** questions.

- 2. What is axoneme? Discuss the ultrastructure of axoneme. State the role of dynein and kinesin in flagellary movement. Distinguish between polyp and medusa with suitable diagrams. 1+3+3+3
- 3. Draw and describe the tracheal system of *Periplaneta* sp. What is torsion? State the significance of torsion in *Pila* sp. What is clitellum? State its role. 4+(1+3)+(1+1)
- 4. What is canal system? Distinguish between Asconoid and Leuconoid canal system with suitable diagrams. Give the advancement of Leuconoid type over Syconoid type of canal system. Mention the evolutionary significance of polymorphism in Siphonophora. 2+4+2+2
- 5. Explain how cyclomerism theory supports the evolution of metamerism in Annelids. Write briefly on different types of coral reefs. Give two characteristic features of class Insecta. 4+4+2

Please Turn Over

Group - B

Answer **any two** questions.

6. Write a note on main aortic arches in vertebrates with suitable diagram. State the evolutionary significance of retrogressive metamorphosis in *Ascidia* sp. 6+4
7. Describe the anatomical features of different parts of ruminant stomach in cow with suitable diagram. Differentiate between neurotoxic and haemotoxic venom. (4+2)+4
8. Differentiate :
- (a) Poisonous and non-poisonous snakes
 - (b) Horns and Antlers
 - (c) Artiodactyla and Perissodactyla. 4+3+3
9. Write notes on (**any four**) : 2½×4
- (a) Accessory respiratory structure of *Anabas* sp.
 - (b) Paedomorphosis
 - (c) Typical flight feather
 - (d) Wheel organ of Muller
 - (e) Pigments and colouration in birds
 - (f) Distinguish between ratites and carinates.
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