

Zoology

Paper-I

Time Allowed: Three Hours

Maximum Marks: 300

- Note:* 1. *The figures in the margin indicate full marks for the questions.*
2. *Candidate should answer questions No. 1 and 5 which are compulsory and any **three** of the remaining questions, selecting at least **one** from each section.*

SECTION – A

1. Write short notes on any **three** of the following in not less than **200** words each: 20×3=60
- (a) Different types of canal systems in porifera with suitable examples
 - (b) Life cycle of liver fluke
 - (c) Structure of a bird's feather
 - (d) Respiration in fishes
2. Write short notes on the following:
- (a) Salient features of phylum arthropoda and mouth parts of cockroach. 15+15=30
 - (b) Life cycle of earthworm and locomotion in annelids. 20+10=30

3. (a) Describe in detail the flight adaption in birds and their migration. 15+15=30
- (b) What is your understanding of parental care and paedomorphosis in amphibians? 15+15=30
4. Give a detailed account of circulatory system in different classes of vertebrates. 12×5=60

SECTION – B

5. Write short notes on any **three** of the following in not less than **200** words each: 20×3=60
- (a) Greenhouse effect and its impact
- (b) Geiger Mueller Counter
- (c) Integrated Pest Management
- (d) Circadian rhythms
6. Write short notes on the following:
- (a) Fish farming 30
- (b) Conditioning and imprinting 15+15=30
7. (a) Pheromones and their role in the induction of various responses. 30
- (b) Pathogenesis and prevention of small pox and tuberculosis. 15+15=30
8. (a) Describe in detail the Chi-square Test and Correlation of Coefficients with suitable example. 15+15=30
- (b) Write in detail about liquid scintillation counter and Transmission Electron Microscope. 15+15=30