

CSM – 71/17
Zoology
Paper – II

Time : 3 hours

Full Marks : 300

The figures in the right-hand margin indicate marks.

*Candidates should attempt Q. No. 1 from Section – A and Q. No. 5 from Section – B which are compulsory and any **three** of the remaining questions selecting at least **one** from each Section.*

SECTION – A

1. Give an account of any **three** of the following :
20×3 = 60
 - (a) Mitotic apparatus
 - (b) Plasmid
 - (c) DNA fingerprinting
 - (d) Sex chromosome
2. Discuss the ultra structure of plasma membrane. Explain uniport, symport and antiport with diagram. 60

3. What is sex and how is sex determined in animals ?
Describe with examples. 60
4. Write notes on the following : 15×4 = 60
- (a) Types of RNA
 - (b) Molecular taxonomy
 - (c) Recombinant DNA
 - (d) Transgenic animals

SECTION – B

5. Explain, with illustration, any **three** of the following : 20×3 = 60
- (a) Structure of carbohydrate
 - (b) Cardiac cycle
 - (c) Regeneration
 - (d) Hypersensitivity
6. Define transduction. Give an account of different types of bacterial transduction with diagram. 60
7. What is meant by pheromone ? Discuss pheromones of insects and mammals with examples. 60

8. Write notes on the following : $15 \times 4 = 60$

- (a) Structure of Prokaryotes
- (b) Gametogenesis
- (c) Glycolysis
- (d) Urine formation



