

CSM – 71/19

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) Species concept
 - (b) Ribosome
 - (c) Laws of Inheritance
 - (d) cDNA library

2. What is Biotechnology ? Explain its various applications in human welfare. 60

3. What is Cell Division ? Explain the role of spindle apparatus during chromosome movement. 60
4. Write notes on the following : 15×4 = 60
- (a) DNA replication
 - (b) Eukaryotic chromosomes
 - (c) Darwinism
 - (d) Sanger's method of DNA sequencing

SECTION – B

5. Explain with illustration any **three** of the following : 20×3 = 60
- (a) Fertilization
 - (b) Vitamins
 - (c) Vaccines
 - (d) Artificial insemination
6. Give an account of metamorphosis in frog and insects with illustrations. 60
7. What are Hormones ? Explain the functional properties of any four hormones. 60

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

- (a) Stem Cells
- (b) Fatty acids
- (c) Bacterial transformation
- (d) O_2 and CO_2 transport

