

<b>CSM – 71/21</b>
<b>Zoology</b>
<b>Paper – II</b>

*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. Write notes on any **three** of the following :

20×3 = 60

- (a) Histones and non-histones
- (b) Wobble hypothesis and Wobble effect
- (c) Types and significance of Mimicry in animals
- (d) Biotechnology as a tool in waste management

2. With suitable examples, discuss, in detail, about Mendel's laws of inheritance. 60
3. What is PCR ? Discuss, in detail, about the process and application of PCR in Biology. 60
4. Write short notes on the following :  $15 \times 4 = 60$
- (a) Mitotic cell division and significance
  - (b) Types of Fossilization
  - (c) Zoogeographical classification of the world
  - (d) Animal cloning

### SECTION – B

5. Write notes on any **three** of the following :  $20 \times 3 = 60$
- (a) Classification and action of enzymes
  - (b) Homeostasis of kidney function
  - (c) **in vitro** fertilization
  - (d) Mode of action of antibiotics
6. Write an account on adrenal cortex and medullary hormones and their functions. 60

7. With emphasis on energy production at various steps, describe the events of glycolysis and Krebs cycle. 60
8. Write notes on the following : 15×4 = 60
- (a) Ageing and associated changes
  - (b) With suitable diagram, write about the structure of neuron
  - (c) Types and function of mammalian placenta
  - (d) Types of vaccines and their production

