

Roll No.

Total No. of Pages : 3

1(CCE.M)3

Zoology-II
(24)

Time : Three Hours]

[Maximum Marks : 300

INSTRUCTIONS

- (i) Answers must be written in English.
- (ii) The number of marks carried by each question is indicated at the end of the question.
- (iii) The answer to each question or part thereof should begin on a fresh page.
- (iv) Your answer should be precise and coherent.
- (v) The part/parts of the same question must be answered together and should not be interposed between answers to other questions.
- (vi) Candidates should attempt questions **1** and **5** which are compulsory and any **three** more out of the remaining questions selecting at least **one** from each Section.
- (vii) If you encounter any typographical error, please read it as it appears in the text-book.
- (viii) Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.
- (ix) No continuation sheets shall be provided to any candidate under any circumstances.

- (x) Candidates shall put a cross (x) on blank pages of Answer Script.
- (xi) No blank page be left in between answer to various questions.
- (xii) No programmable Calculator is allowed.
- (xiii) No stencil (with different markings) is allowed.

SECTION–A

1. Give an account of any **three** of the following :
 - (a) Structure of mitochondria
 - (b) Cytoplasmic inheritance
 - (c) Principles of classification
 - (d) Positive eugenics. 25×3=75
2. Explain the semiconservative DNA replication. 50
3. Describe the various types of chromosomal aberrations and their effects. 50
4. Write short notes (around **200** words) on the following :
 - (a) Darwinian theory of evolution
 - (b) Fluid mosaic model of Plasmamembrane
 - (c) Lac operon gene regulation. 50

SECTION–B

5. Give an account of any **three** of the following :
 - (a) Glycolysis
 - (b) Carbon-dioxide transport
 - (c) Types of placenta in mammals
 - (d) Temperature regulation in man 25×3=75
6. (a) Give an account on mode of action of peptide hormones.
- (b) Describe the nerve conduction. 50

7. (a) Discuss the different types of enzymes and write about mechanism of enzyme action.
- (b) Explain the role of liver in digestion. 50
8. Write short notes on the following in about **200** words :
 - (a) Describe the gastrulation process of frog
 - (b) Fate maps of chick
 - (c) Nephron. 50