

ZOOLOGY (Paper II)

Time Allowed : Three Hours

Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Write distinguishing characteristics about any three of the following in about 200 words each:

20×3=60

 - (a) Peroxisome and Glyoxysome
 - (b) Southern blotting technique and Western blotting technique
 - (c) Eohippus and Parahippus
 - (d) Phenogram and Phylogram
2. Give a detailed account of the process of protein synthesis. **60**
3. Write an essay on the genetic analysis of Rh blood groups. **60**
4. Write short notes on the following:

15×4=60

 - (a) Lamarckism
 - (b) Methods of zoological classification
 - (c) Dating of fossils
 - (d) Hardy-Weinberg law

SECTION 'B'

5. Give short descriptions of any three of the following:

20×3=60

 - (a) Immunoglobulins
 - (b) Chloride shift
 - (c) Organogenesis in the frog embryo
 - (d) Regeneration
6. What is an enzyme? Give a detailed account of the structure and functions of enzymes. **60**
7. Give an account of factors and physiology of blood coagulation. **60**
8. Write short notes on the following:

15×4=60

 - (a) Primitive streak

- (b)** Indeciduate Placenta
- (c)** Metamorphosis in insects
- (d)** Cell death (Apoptosis)