

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'

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| 1. | Differentiate any three of the following | 20×3=60 |
| | (a) Transcription and Translation | |
| | (b) Pseudogene and Oncogene | |
| | (c) Miohippus and Modern horse | |
| | (d) Artificial and Natural Classifications | |
| 2. | Describe detailed structure and functions of Mitochondria. | 60 |
| 3. | Explain mutations. Discuss their origin and role in evolution. | 60 |
| 4. | Define species. Describe the factors responsible for speciation. | 60 |

SECTION 'B'

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| 5. | Explain the importance of any three of the following: | 20×3=60 |
| | (a) Invasiveness of placenta | |
| | (b) Enzymes | |
| | (c) Pheromones | |
| | (d) In vitro fertilization | |
| 6. | Explain how hormones and enzymes control the digestion of proteins, carbohydrates and fats among mammals. | 60 |
| 7. | What is a nerve impulse? Explain how it is conducted through nerve fibres. | 60 |
| 8. | What are fate maps? Give methods of drawing them. Describe the fate maps of chick embryo. | 60 |