

ZOOLOGY (Code – 23)
Time – 3 Hours
Maximum Marks – 150

- Note: i) Answer five questions in all. Question No. 1 is compulsory.
ii) Answer two questions from Part I and two questions from Part II.
iii) The parts of the same question must be answered together and must not be interposed between answers to other questions.
iv) All questions carry equal marks.

1. Write critical notes on any four of the following (4 x 7.5 =30)
- (a) Double helix.
 - (b) Digestive enzymes.
 - (c) Multiple alleles.
 - (d) Colouration.
 - (e) Affinities of Peripatus.
 - (f) Fate maps.

Part I

2. Discuss the aerial adaptation of birds. (30)
3. What are biotic factors? Give an exhaustive account of interspecific biotic factors that help in population regulation. (30)
4. Illustrate the life history of malarial parasite. (30)

Part II

5. Describe the steps in the breakdown of glucose to pyruvate. (30)
6. Describe the counter current mechanism of urine formation in man. Add a note on the role of hormones in regulation of urine volume. (30)
7. Describe the structure of a nuclear-pore complex and the organisation of chromatin. (30)