CSM : 24

ZOOLOGY PAPER - II

Time Allowed : 3 hours | Maximum Marks : 100

QUESTION PAPER SPECIFIC INSTRUCTIONS

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

There are eight (8) questions - four (4) questions each in Part A & B. Each question carries 20 marks.

Marks for each question is indicated against it.

Compulsory questions :

(a) Question No. 1 from Part-A and

(b) Question No. 5 from Part-B

[Compulsory questions No. 1 & 5 have 4 (four) Sub-questions carrying 5 marks each.]

Total No. of questions to be attempted :

5 (five) questions.

[A candidate shall attempt 2 (two) compulsory questions from Part A and B. Out of the remaining 6 (six) questions, 3 (three) are to be attempted taking at least 1 (one) but not more than 2 (two) questions from each Part]

Word Limit:

(a) Compulsory questions carrying 5 marks shall have a limit of 150 words.

(b) There shall be no word limit for the remaining questions.

PART - A

1. Write short note on the following : **(4×5=20)**
   (a) Incomplete dominance and co-dominance
   (b) Co-enzymes
   (c) Difference between prokaryotic and eukaryotic cell
   (d) ABO blood groups

2. (a) What is Operon? Describe the structure and regulation of *lac Operon*. **(10)**

   (b) Briefly describe Polytene and Lampbrush chromosomes. **(10)**

3. Describe the steps involved in glycolysis and explain oxidative phosphorylation. Give a diagrammatic representation of Krebs' cycle. **(10+10=20)**

4. What is transcription? Explain the different steps and mechanism involved in the process of transcription in prokaryotic cell. **(2+18=20)**

PART - B

5. Write short note on the following : **(4×5=20)**
   (a) Haemophilia
   (b) Pheromones and their effects
   (c) Classification of carbohydrates
   (d) Genetics disorders

6. Explain the role of Pituitary gland and gonadal hormones. Describe the regulation of Menstrual cycle. **(10+10=20)**

7. Illustrate the structure and function of mitochondria, emphasizing their role in ATP production. **(20)**

8. What are the different types of enzymes? Discuss the properties, kinetics and inhibition of enzymes. **(5+5+5+5=20)**