

Exam. Code : 103205
Subject Code : 1342

B.A./B.Sc. 5th Semester
ZOOLOGY—ZOO—VB (Genetics)

Time Allowed—3 Hours] [Maximum Marks—35

Note :—There are EIGHT questions. Candidates are required to attempt any FIVE questions. All questions carry equal marks.

SECTION—A

1. What is crossing over ? Explain cytological basis of crossing over. 7
2. Discuss in detail the inheritance of blood group in man. 7

SECTION—B

3. Explain the process of translation in Prokaryotes. 7
4. (a) Differentiate between DNA and RNA. 3
(b) Give account of all the proteins and enzymes used in transcription. 4

SECTION—C

5. Write notes on the following :
(a) Inheritance of chloroplast in *Mirabilis jalapa*. 4
(b) Induced mutations. 3
6. Write a note on operon model of gene regulation. 7

SECTION—D

7. Describe any one method of genetic recombination in bacteria. 7
8. What do you mean by term genetic cloning ? Explain its applications in medicine and agriculture. 7