

DD-782

M. Sc. (Fourth Semester)

EXAMINATION, 2020

ZOOLOGY

(Group—I)

Paper Second

(Cell Biology)

Time : Three Hours

Maximum Marks : 80

Note : All questions are compulsory and carry equal marks.

Illustrate your answer with suitable diagram wherever necessary.

1. (a) What is Barr body ? 2
- (b) Write its significance. 2
- (c) What is leucin zipper ? 4
- (d) Write about chorion gene. 4
- (e) What are segmentation genes ? 4

Unit—I

2. What is chromatin remodelling ? Describe the events of such action with suitable illustrations. 16

Or

How do you explain the organization and significance of sex chromatin ? 16

Unit—II

3. Write short notes on the following : 8 each

- (a) Transposons
- (b) Mutation repair

Or

Describe the eukaryotic transcriptional machinery with suitable examples. 16

Unit—III

4. Write a note on muscular dystrophy. 16

Or

What role does DNA rearrangement play in genetics ?

Unit—IV

- 5. (a) What is homeobox ? 6
- (b) Describe its significance in evolution. 10

Or

How does development of *Drosophila* appendages occur ?