

194 (M)
16
B.A./B.Sc. Semester—I
ZOOLOGY (Cell Biology)
Paper—ZOO-IA

Time Allowed—3 Hours]

[Maximum Marks—35

Note :— Attempt **FIVE** questions in all. Question No. 1 is compulsory. Attempt **ONE** question from each unit.

(Compulsory Question)

1. Explain the following in brief :

- (a) Resolving power
- (b) Fixative
- (c) Smooth endoplasmic reticulum
- (d) Ribosome
- (e) Lysozymes
- (f) Nucleosol
- (g) Antibodies.

1×7=7

UNIT—I

2. Describe the principle and working of electron microscope and enlist the points of difference between light and electron microscopy. 7

3. Write notes on :
- (a) Hematoxylin eosin staining 3
 - (b) Phase contrast microscope. 4

UNIT—II

4. Describe the structure and functions of mitochondria. 7
5. Discuss the following :
- (a) Active transport 4
 - (b) Role of rough endoplasmic reticulum in protein synthesis. 3

UNIT—III

6. Explain the fine structure of Golgi apparatus and discuss its role in Protein modifications. 7
7. Describe :
- (a) Lysomes 4
 - (b) Structure of ribosomes. 3

UNIT—IV

8. Discuss the structural organization of eukaryotic nucleus and enlist its functions. 7
9. Explain the following :
- (a) Cancer 4
 - (b) Acquired Immunity. 3