V
(20516)

Roll No. .....

B. Sc. (Micro.)-II Year

3494

B. Sc. (Micro.) Examination, May 2016

CELL BIOLOGY

(B-201)

Time : Three Hours] *[Maximum Marks : 40*

Note : Attempt any *five* questions. All questions carry equal marks. Draw neat and well labelled diagrams wherever required.

1. Discuss cell as a basic unit of living system.

2. Comment upon various levels of organization.

3. Give a detailed ultrastructure of any four of the following :

   (i) Golgi bodies

   (ii) Endoplasmic reticulum

(iii) Ribosomes

(iv) Cytoskeletal

(v) Mitochondria

(vi) Chloroplast.

4. Who gave Fluid Mosaic Model ? Comment upon different models of cell membrane structure.

5. Describe the mechanism of transport across cell membrane.

6. Write down the main features of prokaryotic cell wall. Differentiate prokaryotic cell wall from the cell wall of eukaryotic microbes.

7. Describe the mechanism of Osmotic protection in prokaryotes.

8. Write short notes on the following :

(i) Capsule in Bacteria

(ii) Classes of Pilli.

9. Describe the structure of bacterial flagella. Comment upon movement in bacteria.

10. Write short notes on any two of the following :

(i) Peroxisomes

(ii) Nuclear envelop

(iii) Lysosome

(iv) Proton pump.

(20518) Roll No. .....

B. Sc. (Micro.)-II Year

3494

B. Sc. (Micro.) Examination, May 2018

CELL BIOLOGY

(B-201)

Time : Three Hours] *[Maximum Marks : 40*

Note : Answer any *Five* questions. All questions carry equal marks. Draw neat and well labelled diagrams wherever required.

1. Describe the ultrastructure of Mitochondria and its functions. 8

2. Write short notes on the following : 4×2=8

   (a) Slime layer and capsule

   (b) Microtubules and microfilaments.

3. Write a detailed account on Endoplasmic reticulum. 8

4. Write short notes on the following : 2×4=8
   (a) Cilia
   (b) Actin
   (c) Nuclear pore
   (d) Pilli.

5. Draw labelled diagrams of the following : 2×4=8
   (a) Nucleus
   (b) Chloroplast
   (c) Prokaryotic cell
   (d) Flagella of Gram positive bacteria.

6. Differentiate between the following : 4×2=8
   (a) Active and passive transport
   (b) Cell wall of Gram positive and Gram negative bacteria.

7. Write short notes on the following : 4×2=8
   (a) Fluid mosaic model of plasma membrane
   (b) Lysosomes.

8. Write an essay on Golgi apparatus. 8

9. Write notes on the following : 4×2=8
   (a) Functions of cell wall
   (b) Functions of plasma membrane.

10. (a) Explain the various levels of organization with examples. 4
    (b) Explain the structure of nuclear membrane. 4