

**Avinashilingam Institute for Home Science and Higher Education for Women,
[Deemed to be University] Coimbatore – 641 043**

Bachelor's Degree Examinations – November 2018

III Semester

**Class: II UG
Major: Zoology**

**Time: 3 hrs
Marks: 100**

15BZOC07 Cell Biology

Part – A

10x1=10

Choose the correct answer

1. Simple microscopes are also called
 - a. Compound microscope
 - b. Dissection microscope
 - c. Polarizing microscope
 - d. Phase contrast microscope
2. The protoplasm theory was proposed by
 - a. Hertwig
 - b. Schleiden and Schwann
 - c. Purkinje
 - d. Felix Derjardin
3. Plasma membrane contains ion transporting pores called
 - a. Gap Junction
 - b. Ion- channels
 - c. Nexus
 - d. Tight junction
4. The process of intake of fluid particles through plasma membrane
 - a. Endocytosis
 - b. Pinocytosis
 - c. Exocytosis
 - d. Cytopenphsis
5. Which is powerhouse of the cell?
 - a. Centrosome
 - b. Mitochondria
 - c. Nucleus
 - d. Nucleolus
6. Which cell organelle is as called "Suicidal bag"?
 - a. Mitochondria
 - b. Ribosomes
 - c. Golgi bodies
 - d. Ribosomes
7. Controlling center of the cell
 - a. Nucleus
 - b. Nucleolus
 - c. Plasma membrane
 - d. Mitochondria
8. Polytene chromosomes were discovered by -----
 - a. Ruckert in 1892
 - b. Wilson in 1905
 - c. Balbini in 1881
 - d. Oudet in 1975
9. Genes responsible for the transformation of normal cells into tumour cells
 - a. Stem cell
 - b. Oncogenes
 - c. Embryonic cells
 - d. Master cells
10. Treatment of cancer using drugs is called
 - a. Chemotherapy
 - b. Surgery
 - c. Radiation therapy
 - d. Immune therapy

Part - B

5X6=30

Answer the Following

Answer should not exceed 400 words or two pages

- 11.a. Give a brief account on cell theory.
(or)
- 11.b. Illustrate the structure of light microscope.
- 12.a. Write an account on cell adhesion.
(or)
- 12.b. Enlist the chemical composition of plasma membrane.
- 13.a. Elucidate the structure of mitochondria.
(or)
- 13.b. Write the functions of Golgi complex.
- 14.a. Write a brief account on Polytene chromosome.
(or)
- 14.b. Emphasize the structure of nucleolus.
- 15.a. Give an account on origin of cancer.
(or)
- 15.b. Differentiate normal and cancer cell.

Part - C

5X6=30

Answer the Following

Answer should not exceed 800 words or four pages

- 16.a. Describe the principle and working mechanism of centrifuge.
(or)
- 16.b. Enumerate the structure and working mechanism of Transmission Electron Microscope.
- 17.a. Explain the structure and functions of plasma membrane.
(or)
- 17.b. Write a detailed account on membrane transport of plasma membrane.
- 18.a. Illustrate the ultra structure and functions of lysosomes.
(or)
- 18.b. Explain the structure and functions of centrosomes.
- 19.a. Write an importance of giant chromosome.
(or)
- 19.b. Illustrate the ultra structure of chromosomes.
- 20.a. Enlist the properties of cancer cells.
(or)
- 20.b. Write an essay on causes of cancer.