

**Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore-641 043**

Bachelor's Degree Examination – November 2017

V Semester

**Class : III UG
Major : Botany**

**Time :3 hours
Max. Marks: 100**

**15BBOC13 Cell biology
Part-A
Choose the correct answer**

10 x 1=10

1. The term 'plasma membrane' was coined by
a. Robertson b. Crick c. Nageli d. Watson
2. The process in which water molecules enter in to the cell is called as
a. Endosmosis b. Exosmosis c. transpiration d. Diffusion
3. Which of the following is called as the cytoskeleton of the cell?
a. Nucleus b. Plasma membrane
c. Endoplasmic Reticulum d. Lysosome
4. Golgi complex is also called as
a. Suicidal bodies b. Dictyosome
c. Power house d. ER
5. Which of the following is called the 'assembly shops' of a cell?
a. Ribosomes b. Mitochondria c. Dictyosomes d. Chromosome.
6. In eukaryotes ribosomes are synthesised in the -----
a. Nucleolus b. Mitochondria c. Nucleus d. Chromosome.
7. Darkly stained condensed regions of chromosomes are called as -----
a. Genes b. Euchromatin c. Histones d. Heterochromatin
8. DNA wrap around the histone in the form of a bead is called as -----
a. Nucleosome b. Nucleolous c. Chromatin d. Chromosomal proteins
9. Which of the following is the resting phase of a cell?
a. Anaphase b. Telophase c. Interphase d. Prophase
10. Final stage of karyokinesis is -----
a. Telophase b. Anaphase c. Prophase d. Metaphase .

Part B

5 X 6=30

Answer the following

Answer should not exceed 400 words or two pages

- 11.a. Write a brief account on the chemical nature and functions of Cell wall
(or)
- 11.b. Write an account on fluid mosaic model of plasma membrane
- 12.a. Explain about the three components of endoplasmic reticulum in brief
(or)
- 12.b. Describe the structure of mitochondria
- 13.a. Write about the functions of Ribosomes
(or)
- 13.b. Differentiate 70 s Ribosomes from 80 s Ribosomes
- 14.a. Explain about the structure of chromosomes
(or)
- b. Write about the different parts of chromosomes
- 15.a. Comment the significance of Mitosis
(or)
- b. Write about the significance of Meiosis

Part - C

5 x 12=60

Answer the following

Answer should not exceed 800 words or four pages

- 16.a. Explain the structure and functions of Plasma membrane
(or)
- b. Write an essay on the chemical and physical nature of Cytoplasm
- 17.a. Write an account on the ultra structure and types of Endoplasmic reticulum
(or)
- b. Explain the structure and functions of Golgi complex, with neat diagram.
- 18.a. Give a detailed account on the occurrence, structure and chemical composition of Ribosomes
(or)
- b. Describe the structure of Nucleus with suitable diagram.
- 19.a. Write an essay on the chemical composition of chromosomes
(or)
- b. Explain about the types of chromosomes.
- 20.a. Give an account on Mitosis and its types in detail.
(or)
- b. Write an essay on meiosis I in detail.
