

18. Explain the stages of mitosis with a neat labeled diagram.
 19. Give a brief account of voltage gated channels against neuronal cell membrane.
 20. What is tissue processing? Write in detail about preparation of specimens and different stages of tissue processing.
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S.No. 1757

12UBT01

(For the candidates admitted from 2012–2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First Semester

Biotechnology

CELL BIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are the three main parts of eukaryotic cell?
2. How animal cell differ from bacterial cells with respect to nucleus?
3. Slate the properties of lysozyme
4. Which organelle is the suicidal bag of the cell? Why?
5. Define Karyotype.

6. Enlist the features of telophase.
7. Mention the role of nerve cells
8. How muscle contraction occurs?
9. Mention the trimetric forms of G-protein
10. What are the materials used for cell sectioning?

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write the major differences between plant and animal cells

Or

- (b) Draw the ultra structure of Prokaryotic cell and label their parts.

12. (a) What are lysosomes? Write its ultimate fate of digestive vacuole.

Or

- (b) Give the details on the structure and function of chloroplast.

13. (a) Name the phases of cell cycle and its major features of each phase.

Or

- (b) Brief about the structural organization of chromosomes.

14. (a) Enlist the differences between cilia and flagella.

Or

- (b) How muscle contraction takes place with the help of muscle protein?

15. (a) Give an account on the general types of signal transducers.

Or

- (b) Write a note on cell membrane traffic.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss in detail about the history of cytology and cell theory

17. Describe the chemical composition and various models of plasma membrane with a neat sketch.