

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2019
(Third Semester)

Branch - BOTANY

CELL & TISSUE BIOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks!)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 Define plasmolysis.
- 2 Bring out the function of plasmodesmata.
- 3 Mitochondria are called as power house of the cell-Why?
- 4 What is thylakoid?
- 5 Comment on SER.
- 6 Mention the importance of vacuoles.
- 7 • Write a note on nuclear pore complex.
- 8 Define unit membrane.
- 9 Comment on sclerids.
- 10 Bring out the function of phloem.

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Explain diffusion with suitable example.
OR
b Discuss the chemical nature of lignin.
- 12 a Elucidate PLP model of plasma membrane.
■ OR
b Analyze the functions of chloroplast.
- 13 a Highlight the types of endoplasmic reticulum.
OR
b Give a note on ribosomes and its functions.
- 14 a Elaborate the structure of nucleoplasm.
OR
b Comment on the structure of nuclear membrane.
- 15 a Write an account on differentiation.
OR
b Explain the structural elements of xylem.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 How does the cell wall formation take place in plant?
- 17 Describe the structure and functions of mitochondria.
- 18 Comment on the ultra structure and functions of golgi bodies.
- 19 Elaborate the structure and functions of nucleus.
- 20 Write an essay on simple permanent tissues.