

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017
(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 osmosis.
- 2 Bring out the functions of cell wall.
- 3 Plasma membrane is a semi permeable membrane - Why?
- 4 What is granum?
- 5 Comment RER.
- 6 State the significance of microtubules.
- 7 Define Karyolymph.
- 8 Brief about nuclear membrane.
- 9 Comment on parenchyma.
- 10 State the functions of xylem.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Explain imbibition with an example.
OR
b Discuss the chemical nature of cellulose.
- 12 a Elucidate fluid mosaic model of plasma membrane.
OR
b Highlight the types of plastids.
- 13 a Illustrate the structure of endoplasmic reticulum.
OR
b Enlist the functions of golgi bodies.
- 14 a Elaborate the occurrence of nucleus.
OR
b Explain the structure of nucleolus.
- 15 a Write an account on maturation.
OR
b Explain the following: (i) Sclereids (ii) Fibres.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Describe the ultra structure of plant cell wall.
- 17 Elaborate the structure and functions of mitochondria.
- 18 Comment on the ultra structure of golgi bodies.
- 19 Elucidate the structure and functions of nucleus.
- 20 Write an essay on complex permanent tissues.