

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2018
(First Semester)

Branch - **ZOOLOGY**

CELL BIOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions earn **EQUAL** marks (10x2 = 20)

- 1 What do you mean by Metachromasis?
- 2 Cell Theory.
- 3 ⁴Ribosomes are protein factories“-Justify.
- 4 Unit membrane hypothesis.
- 5 What are Fi particles?
- 6 Define Centrosome.
- 7 What is meant by nucleolar organizing region?
- 8 What is complementary base pair? Write the base pair of ATCGTA.
- 9 Define Cancer.
- 10 Apoptosis.

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Enumerate the significance of Mitosis.
OR
b Write any five differences between Prokaryotic and Eukaryotic cells.
- 12 a Describe the Ultra structure and functions of Ribosomes.
OR
b Write about any two supportive theories of structure of Plasma membrane.
- 13 a Describe the structure and chemical composition of Mitochondria.
OR
b Enlist the functions of Endoplasmic reticulum.
- 14 a Give an account on physico-chemical nature of DNA molecule.
OR
b Comment on special types of Chromosomes.
- 15 a Write notes on (a) Viral oncogenes and (b) Tumour suppressor genes.
OR
b Describe the characteristic features of Apoptosis.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 With a neat sketch, describe the principle, structure and applications of electron microscope.
- 17 What are the Lysosomes? Describe their origin, structure and functions.
- 18 Describe the structure and functions of nucleus.
- 19 Describe the process of translation dummy protein synthesis.
- 20 Enumerate the characteristic features of Cancer Cells.