

BSc DEGREE EXAMINATION DECEMBER 2017
(First Semester)

Branch- **ZOOLOGY**

CELL BIOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

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

- I
- W to
- 1 Define cell theory.
 - 2 Write the significance of crossing over in meiosis.
 - 3 Why do the lysosomes are described as suicidal bags?
 - 4 What is meant by phagocytosis?
 - 5 Write the characteristic features of mDNA.
 - 6 What is RER? Write its importance.
 - 7 Define transcription.
 - 8 Name the different types of chromosomes based on centromere.
 - 9 Oncogenes.
 - 10 Apoptosis.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- II a Write the differences between prokaryotic and eukaryotic cells.
OR
b Give an account on prophase I of meiotic division I.
- 12 a Enumerate the functions of plasma membrane.
OR
b Describe the polymorphic structure of lysosomes.
- 13 a Explain the structure of mitochondria with a neat labeled sketch.
OR
b Describe the structure of nucleus.
- 14 a Give an account on semi -conservative method of replication.
OR
b Describe the structure of tRNA.
- 15 a Enlist the characteristic features of cancer cells. .
OR
b Comment on the events of apoptosis.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Give an account on structure, functions and applications of Electron microscope.
- 17 Describe the various models regarding the plasma membrane.
- 18 Enlist the functions of endoplasmic reticulum. Add a note on its chemical composition.
- 19 Write an essay on protein synthesis.
- 20 Give an account on cellular functions of oncoproteins.