

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2017)bM8o°fe//4 M
(Second Semester)

Branch - MICROBIOLOGY

CELL BIOLOGY & MICROBIAL GENETICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10x2=20)

- 1 Lysosome.
- 2 Cytosol.»
- 3 Cadherin. *
- 4 Apoptosis.
- 5 R Plasmid.
- 6 IS element.
- 7 Hff.
- 8 Rec A.
- 9 Silent mutation. *
- 10 SOS repair.

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Write a short note on structure and function of mitochondria.

OR

- b Write a note on cell theory.

- 12 a Write a note on cell adhesion.

OR

- b Give an account of cell signaling.

- 13 a Write a note on extra chromosomal inheritance.

OR

- b What are transposons? Classify them with examples. >

- 14 a Write a note on Ames test and its significance.

OR

- b What are mutagens? Classify them with examples.

- 15 a Explain with the help of diagram the steps of transduction.

OR

- b What is a competent cell? Explain the mechanism of transformation.

SECTION - C (30 Marks)

Answer any THREE Questions

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

- 16 Draw a eukaryotic cell and briefly explain on the various organelles of the cell.
- 17 With a neat diagram and explain the various steps of meiosis and its significance. .
- 18 DNA is the genetic material ? Justify.
- 19 Discuss in detail on DNA damage and repair.
- 20 Write in detail on process of conjugation.