

Subject : Bio-Technology

Paper – I : Cell Biology and Genetics

Time : 3 Hours

Max. Marks: 80

PART – A (5 x 4 = 20 Marks)

(Short Answer Type)

Note : Answer any FIVE of the following questions.

- 1 Golgi apparatus
- 2 Histones
- 3 Bacterial cell division
- 4 Apoptosis
- 5 ABO Blood Group
- 6 Law of independent assortment
- 7 Chloroplast inheritance
- 8 Shell coiling in snail

PART – B (4x15=60 Marks)

(Essay answer type)

Answer all from the following questions

- 9 (a) Describe the structure of cell membrane with the help of different models.  
OR  
(b) Explain in detail specialized Chromosomes.
- 10 (a) Describe different stages of meiosis?  
OR  
(b) Explain in detail senescence and necrosis.
- 11 (a) Explain different types of epistasis?  
OR  
(b) Describe Mendal Laws. Explain factors contributing to the success of his experiments.
- 12 (a) Discuss the Mitochondrial inheritance in human and poky in Neurospora crassa?  
OR  
(b) What is crossing over? Explain cytological proof of crossing over?

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