

AS-2051
CELL BIOLOGY -I
SEMESTER -II

TIME :3 HOURS

M:M: 40
714/MH

Note: Candidates are required to attempt two questions each from section A and B and the entire section C.

Section – A

1. a. Write explanatory notes on nuclear pore complex and nucleolus. (6)
2. Describe the structure and functions of peroxisomes and vacuole. (6)
3. Discuss the ultra-structure and functions of Golgi Body. (6)
4. Write a detailed note on position, structure and significance of extra nuclear genome. (6)

Section – C

5. What is polyploidy? Discuss the types and effects of polyploidy base on relevant examples. (6)
6. Define translocation. Explain the types and meiotic behaviour during translocation. (6)
7. Describe the structure of cell wall in microbes. (6)
8. Write notes on the following:
a. Satellite chromosomes. b. Sex chromosomes. (3+3)

Section – C

9. Answers to the following questions briefly.
 - a. What do you mean by prokaryotic and eukaryotic ribosomes.
 - b. Comment on the structure of Endoplasmic reticulum.
 - c. What are the functions of plastids?
 - d. Define the term nuclear lamina.
 - e. Differentiate between metacentric and acrocentric chromosomes.
 - f. What do you mean by gigas effect?
 - g. Define the term karyotype.
 - h. Differentiate between aneuploidy and polyploidy. (2×8 = 16)