

CELL BIOLOGY - III

Semester - II

Time : Three Hours]

[Maximum Marks : 30

Note : Attempt *five* questions in all. Section *two* questions each from Section A and B. Q. No. 9 of Section C is compulsory.

Section - A

1. What is the function of Endoplasmic Reticulum ? Why is it always present near to nucleus ?
2. Define the structure and function of Nuclear pore complex.
3. Discuss briefly the structure and functions of Golgi complex and Peroxisomes.
4. What is the significance and function of the presence of Mitochondrial and Plastid DNA ? (2×5=10)

Section - B

5. Discuss the organization and morphology of Chromosome, Centromere and Telomere.
6. Define Chromosomal aberrations and its various types.
7. What is the composition and structure of Cell wall in microbes and plants ?
8. How does Aneuploidy differ from other types of polyploidy ? (2×5=10)

Section - C

(Compulsory Question)

9. Attempt all the following :
 - (a) Define Nucleolus.
 - (b) What is the function of Vacuoles and Peroxisomes in plant cell ?
 - (c) Plastid is a semi-autonomous organelle. Justified.
 - (d) Define Sex chromosomes in plants.
 - (e) Write briefly about the structure and functions of Extracellular genome. (5×2=10)