

CLASS-10
Subject-BIOLOGY
Chapter-STRUCTURE OF CHROMOSOME & CELL DIVISION
SYNOPSIS

1. Chromosomes are visible during divisional phase only.
2. Chromosomes have two arms called chromatids joined by a disc shaped centromere.
3. Chromosomes contain Genes which are the hereditary units.
4. Chromatin is condensed form of chromatin network made of DNA and HISTONES.
5. DNA is double helix structure having nitrogenous base, pentose sugar and phosphate group.
6. Nucleosome is histone core wrapped by DNA.
7. Cell division forms new cells from pre existing cells.
8. Cell division helps in growth, repair, replacement and reproduction.
9. A cell cycle has INTERPHASE and a DIVISION phase.
10. Interphase has G1, S and G2 phases whereby cell prepares for divisional phase.

WORKSHEET

SHORT ANSWER TYPE

1. Define- Chromosome, Centromere, Nucleosome.
2. What is nucleotide?
3. What is the alternate name of cell cycle?
4. Expand DNA.
5. What is the basic difference between chromatid and chromosome?
6. Name the cell organelle in which the chromosomes are found.
7. Name the bond which joins the complementary nitrogenous bases of two polynucleotide chains of DNA.

LONG ANSWER TYPE

1. Explain the molecular structure of DNA.
2. What are the steps of cell cycle?
3. In which phase DNA is synthesized in a cell?
4. Explain replication of DNA.