

**CLASS XI – BIOLOGY      ASSIGNMENT 2      CELL CYCLE & CELL DIVISION**

1. Define genome & cell cycle. What are the 2 basic phases of cell cycle?
2. What is karyokinesis and cytokinesis? What are the three phases of interphase? Explain.
3. What is the significance of G<sub>0</sub> stage of cell cycle?
4. With help of diagrams describe various events of different phases of mitosis.
5. Why is mitosis called equational division?
6. How does cytokinesis in plant cell differ from that in animal cell?
7. What is the significance of mitosis?
8. Can there be mitosis without DNA replicate in 'S' phase?
9. List the key features of meiosis and define meiosis. Draw stages of meiosis I & II.
10. Describe the following: (a) homologous chromosomes    (b) synapsis    (c) bivalent    (d) chiasmata  
Draw a diagram to illustrate your answer.
11. List the features of : anaphase I, metaphase I, telophase I
12. What are the differences between: metaphase I & Metaphase of mitosis; anaphase I & anaphase of mitosis  
Give significance of meiosis.