

Biology (New Book) - 9th Class Biology Urdu Medium Chapter 4 Preparation

Q1. Enlist the events that occurs during G1 phase of interphase.

Ans 1: G1 phase is called the growth phase
During this phase cell make proteins and organelles and so grows in size.
Cell also makes enzymes that are required in S phase for DNA replication.

Q2. What are the key events of anaphase in mitosis.

Ans 1: Constriction of spindle fibers towards their respective poles
Equal separation of sister chromatids of chromosomes.

Q3. What is the function of the centrosome during cell division.

Ans 1: During cell division the centrosome of cell duplicates into two these two centrosomes migrate to the opposite side of the nucleus and make network of microtubules called spindle fibers. These spindle fibers ensure accurate separation of chromosomes.

Q4. Difference between Mitosis and Meiosis

Ans 1: Mitosis
It takes place in somatic cells
It consists of one division
Chromatids divide at anaphase
Two diploid daughter cells are formed.
The number of chromosomes remains constant.

Ans 2: Meiosis
It takes place in germ line cells of sex organs.
It consists of two divisions
Chromatids do not divide at anaphase - I
Four haploid daughter cells are formed.
The number of chromosomes becomes half in meiosis

Q5. Define Cell cycle.

Ans 1: It is a series of events that take place in a eukaryotic cell from its formation to the division into two daughter cells.

Q6. What is the role of spindle fibers in mitosis.

Ans 1: During mitosis, spindle fibers ensure the accurate separation of sister chromatids of chromosomes attached with spindle fibers in telophase.

Q7. What are sister chromatids, and when do they separate in meiosis.

Ans 1: Sister chromatids are identical copies of a single chromosome. These sister chromatids are separated during anaphase II of meiosis.

Q8. What is the main purpose of the S phase in the cell cycle.

Ans 1: The main purpose of S phase in the cell cycle is to copy the cell's DNA, doubling the amount of DNA in the cell.

Q9. Define synapsis.

Ans 1: During meiosis, the homologous chromosomes move close together and pair up. This pairing of homologous chromosomes is called synapsis.

Q10. Define interphase.

Ans 1: This phase lasts for about 90% of the total time of the cell cycle. During interphase, the cell performs its life functions according to its specialty and prepares itself for the next division.
