Biology - 12th Class Biology Chapter 21 Short Questions Preparation

Q1. What is interphase? Write the name of its sub stages

Ans 1: The period of life cycle between two consecutive division is termed as the interphase,or misleadingly termed as the resting phase:\its sub stage are:
i) G1 phase ii) S-phase iii) G2 phase

Q2. What is importance of bivalent formation?

Ans 1: Due to bivalent formation of homologous chromosomes,the non sister chromatids exchange their segment during the crossing over resulting in new recombination.

Q3. How cytokinesis occur in plants?

Ans 1: At cytokinesis,in place of contractile ring a membrane structure,phragmoplast informed from vesicle,which originates from Golgi complex.These vesicles lined up in the center of the dividing cell,where they fuse to form phragmoplast. The membrane of vesicles become the plasma membrane of daughter cells.

Q4. Differentiate between cancer cell and normal cell or Write a least three characters of cancer cells.

Ans 1: Cancer cell can be distinguished from normal cells because they are less differentiated than normal cells,exhibit the characteristics of rapidly growing cell,i.e,is high nucleus to cytoplasmic ratio,prominent nucleoli and many mitosis.

Q5. Give only cause of Down's syndrome and Klinefelter syndrome.

Ans 1: These are meiotic errors due to non disjunction and due to unequal distribution of chromosomes.

Q6. Give four important functions of mitosis.

Ans 1: Four functions of mitosis are

Ans 2: a) Asexual reproduction is due to mitosis
b) Healing of wounds and regeneration is also due to mitosis
c) It ensure equal or same number chromosomes in daughter cell
d) It transfer characters from parents to offspring without any change

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Q7. Define crossing over.Give its significance.

Ans 1: It is exchange of segments of chromosomes between non sister chromatids. Its significance is that,it provides raw material

for evolution and also from new recombination of genes.

Q8. Give four importance of mitosis.

Ans 1: i) It transfers unchanged genetic information to the daughter cells
ii) It helps in all types of asexual reproduction like cloning,tissue culture etc
iii) It helps in healing of wounds
iv) It maintains the chromosomes number constant.

Q9. Define non-disjunction of chromosomes. Or Define chromosomal non-disjunction.

Ans 1: It is chromosomal non disjunction,during which spindle fibers fail to attach with chromosomes and resulting unequal distribution of chromosomes occur.

Q10. What events occur in anaphase of mitosis?

Ans 1: During anaphase of mitosis spindle contract and centromere divides and two sets chromosomes are formed.Each set of chromosomes moves toward opposite poles.So that each pole receive one set of chromosomes.
