

## Biology - 12th Class Biology Chapter 21 Short Questions Preparation

Q1. Give two disadvantages of cloning..

**Ans 1:** Disadvantages of cloning are.

**Ans 2:** 1) All members of cloning are identical to each other and no genetic variability is produced.  
2) Member of clone does not show resistance to diseases and has less survival ability.

Q2. Describe changes occur in during G<sub>1</sub>phase.

**Ans 1:** It is period of extensive metabolic activities, in which cell normal grows in size, specific enzymes are synthesized and DNA base units are accumulated for the DNA synthesis

Q3. Give affect of XYY Klinefelter syndrome.

**Ans 1:** The affected persons are phenotypically male but have frequently enlarged breast, tendency to tallness, Obesity, small testes with no sperms at ejaculation and under development of secondary sex characters.

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. What is Klinefelter's syndrome?

**Ans 1:** The individual have an additional sex chromosome i.e., 47.(44+xy). They are phenotypically male but have frequently enlarged breast, tendency to tallness, obesity, small testes with no sperms at ejaculation and under development of Secondary sex characters.

Q6. 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) G<sub>1</sub> phase ii) S-phase iii) G<sub>2</sub> phase

Q7. 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.

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Q8. Name only stages of prophase I of meiosis.

**Ans 1:** Following are the sub stages of prophase I of meiosis

**Ans 2:** i) Leptotene ii) zygotene iii) pachytene iv) diplotene v) diakinesis

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Q9. how and when the phragmoplast originates?

**Ans 1:** Phragmoplast originates from the Golgi vesicles or Golgi apparatus. Vesicles cut off from the Golgi apparatus and arranged at the equator to form phragmoplast. Phragmoplast originates at the time of cytokinesis in plant cells.

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Q10. What are the events of S-Phase?

**Ans 1:** Following  $G_1$  the S-Phase (synthesis phase) during which the DNA is synthesized and chromosome number is doubled.

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