

BIOLOGY

NCERT - NCERT BIOLOGY(TELUGU)

CELL CYCLE AND CELL DIVISION

Question

1. What is the average cell cycle span for a mammalian cell?



2. Distinguish cytokinesis from karyokinesis.



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3. Describe the events taking place during interphase. Answer



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4. What is G_0 (quiescent phase) of cell cycle?

5. Why is mitosis called equational division?



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6. Name the stage of cell cycle at which one of the following events occur:

(i) Chromosomes are moved to spindle equator

(ii) Centromere splits and chromatids separate

(iii) Pairing between homologous chromosomes takes place (iv) Crossing over between homologous chromosomes takes place



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7. Describe the following: (a) synapsis (b) bivalent (c) chiasmata Draw a diagram to illustrate your answer.



8. How does cytokinesis in plant cells differ from that in animal cells?



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9. Find examples where the four daughter cells from meiosis are equal in size and where they are found unequal in size.



10. Distinguish anaphase of mitosis from anaphase I of meiosis.



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11. List the main differences between mitosis and meiosis.



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12. What is the significance of meiosis?



- 13. Discuss with your teacher about
- (i) haploid insects and lower plants where cell-division occurs, and
- (ii) some haploid cells in higher plants where cell-division does not occur.



14. Can there be mitosis without DNA replication in S phase?



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15. Can there be DNA replication without cell division?



16. Analyse the events during every stage of cell cycle and notice how the following two parameters change

- (i) Number of chromosomes (N) per cell
- (ii) Amount of DNA content (C) per cell Answer

