

Class :

Date :

Subject : **BIOLOGY**

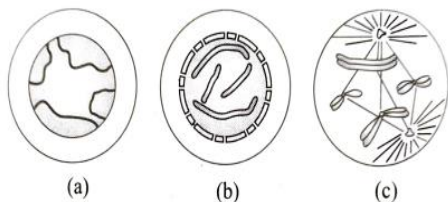
DPP No. : 3

Topic :- CELL CYCLE AND CELL DIVISION

- In plant cells, cytokinesis occurs by
A. Cell plate B. Invagination C. Furrowing D. All of the above
- Cytokinesis is
A. Division of nucleus B. Division of chromosomes
C. Division of cytoplasm D. None of the above
- What is the proper sequence in mitosis?
A. Metaphase, telophase, prophase and anaphase
B. Prophase, metaphase, anaphase and telophase
C. Anaphase, metaphase, telophase and prophase
D. Telophase, anaphase, metaphase and prophase
- Prophase-I is subdivided into five phases based on
A. Chromosomal movement B. Chromosomal alignment
C. Chromosomal behaviour D. Chromosomal structure
- Shape of chiasmata is
A. C-shaped B. X-shaped C. Y-shaped D. U-shaped
- The beginning of diplotene is recognised by the
A. Dissolution of the synaptonemal complex
B. Tendency of the recombined homologous chromosomes of the bivalents to separate from each other
C. Meiotic spindle is assembled
D. Both A and B
- The stages through which a cell passes from one division to the next is called
A. Cell division B. Cell cycle C. Karyokinesis D. Cytokinesis
- Most of the organelle duplication occurs during
A. M-phase B. Interphase C. Interkinesis D. Cytokinesis



9. Recognise the figure and find out the correct matching.



- A. a–Early prophase, b–late prophase, c–transition to metaphase
B. b–Early prophase, c–late prophase, a–transition to metaphase
C. c–Early prophase, a–late prophase, b–transition to metaphase
D. b–Early prophase, a–late prophase, c–transition to metaphase

10. Non-sister chromatids exchange segments during

- A. Leptotene B. Diplotene C. Zygotene D. Pachytene

11. Recombination involves

- A. Crossing over B. Chromosome duplication C. Spindle formation D. Cytokinesis

12. Which is unique to mitosis and does not occur in meiosis?

- A. Homologous chromosomes cross over
B. Homologous chromosomes pair and form bivalent
C. Homologous chromosomes behave independently
D. Chromatids are separated during anaphase

13. Recombination between homologous chromosomes is completed by the end of

- A. Pachytene B. Leptotene C. Diplotene D. Zygotene

14. Crossing over takes place in

- A. Prophase B. Metaphase C. Anaphase D. Prophase I

15. Homologous chromosomes separate during

- A. Metaphase I B. Anaphase I C. Metaphase II D. Anaphase II

16. Microtubules from opposite poles of spindle get attached to kinetochores of sister chromatids during

- A. Anaphase II B. Prophase II C. Metaphase II D. Metaphase I

17. Exchange of segments between non-sister chromatids of homologous chromosomes is

- A. Crossing over B. Translocation C. Linkage D. Inversion

18. In meiosis, synapsis occurs during

- A. S-phase B. Interphase C. Leptotene D. Prophase



19. Meiosis involves
- A. Two nuclear divisions and one chromosomal division
 - B. One nuclear division and one chromosomal division
 - C. One nuclear division and two chromosomal divisions
 - D. Two nuclear divisions and two chromosomal divisions
20. In which stage of meiosis, the structure, number and shape of chromosomes can be observed
- A. Prophase I
 - B. Metaphase I
 - C. Anaphase I
 - D. Telophase I

ANSWER KEY

1. A	2. C	3. B	4. C	5. B	6. D	7. B	8. B	9. A	10. D
11. A	12. C	13. A	14. D	15. B	16. C	17. A	18. D	19. A	20. B

