

DPP

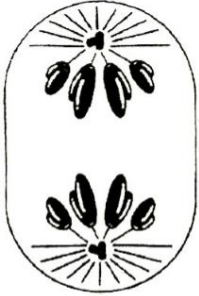
DAILY PRACTICE PROBLEMS

Class : XIth
Date :

Subject : BIOLOGY
DPP No. : 2

Topic :- Cell Cycle and Cell Division

- During mitosis, number of chromosomes gets
 - Change
 - No change
 - May be change if cell is mature
 - May be change if cell is immature
- Chromosomes cluster at opposite spindle poles their identity is lost as discrete elements
 - Nuclear envelope assembles around the chromosome clusters
 - Nucleolus, Golgi complex and ER reform
 Above features indicates which phase of mitosis
 - Anaphase
 - Telophase
 - Cytokinesis
 - S-phase
- What would be the change in the chromosome number, during S-phase?
 - No change
 - The number of chromosome doubles
 - The number of chromosome doubles only in case of diploid cell
 - The number of chromosome doubles only in case of haploid cell
- Arrange the following events of meiosis in a correct sequence and choose the correct option
 - Terminalisation
 - Crossing over
 - Synapsis
 - Disjunction of genomes
 - IV, III, II and I
 - III, II, I and IV
 - II, I, IV and III
 - I, IV, III and II
- What is the approximate percentage duration of cell cycle that comes under interphase in humans?
 - 99%
 - 95%
 - 25%
 - 5%
- Which of the following stage of meiosis is responsible for deciding genetic constitution of gametes?
 - Metaphase-II
 - Anaphase-II
 - Metaphase-I
 - Anaphase-I
- ...A.... mitotic cell division is only seen in the diploid somatic cells, while the ...B... can show mitotic divisions in both haploid and diploid cells.
Identify A and B form the options given below
 - A-Animals; B-plants
 - A-Plants; B-animals
 - A-Bacterial; B-viruses
 - None of these
- Given diagram indicates which of the following phase of mitosis? Choose the correct option



- a) Interphase b) Prophase c) Metaphase d) Anaphase
9. In meiosis, the chromosome number
- a) Reduces by half b) Increase by twice
c) Increase by four times d) Reduces by one-fourth
10. The phase between two successive M-phase is called
- a) S-phase b) G_1 -phase c) G_2 -phase d) Interphase
11. At the end of meiosis-II, number of haploid cells formed are
- a) Two b) Four c) Eight d) None of these
12. The transition between meiosis-I and meiosis-II is
- a) Interkinesis b) Cytokinesis c) Diakinesis d) Karyokinesis
13. Synapsis occurs between
- a) A male and a female gamete
b) mRNA and ribosomes
c) Spindle fibres and centromere
d) Two homologous chromosomes
14. In which stage of cell division, chromosomes are most condensed?
- a) Prophase b) Metaphase c) Anaphase d) Telophase
15. Which of the protein is found in spindle fibre?
- a) Tubulin b) Albumin c) Mucin d) Haemoglobin
16. Which of the following events occurs during G_1 -phase?
- a) DNA replication
b) Growth and normal function of cell
c) Mutation
d) Fertilization
17. Select the correct statements regarding S-phase of interphase
- I. Occurs between G_1 and G_2
II. DNA replication begins in the nucleus
III. Centrioles duplicate in the cytoplasm
IV. As DNA is doubled, number of chromosomes also doubles
- The option with correct statements is
- a) IV and III b) I, II, III and IV c) II, III and IV d) I, II and III
18. A material, which arrests cell division, is obtained from

- a) *Crocus* b) *Colchicum* c) *Dalbergia* d) *Chrysanthemum*
19. During cell division, sometimes there will be failure of separation of sister chromatids. This event is called
a) Interference b) Complementation c) Non-disjunction d) Coincidence
20. I. The cells that do not divide further, exit G_1 -phase to enter an inactive stage called ...A... phase of the cell cycle
II. The cells that are in G_2 -phase definitely continue with the ...B... phase.
Identify A and B to complete the given NCERT statements
a) A- G_0 ; B-S b) A-S; B- G_0 c) A-M; B- G_0 d) A- G_0 ; B-M



SMARTLEARN
COACHING