

# CELL CYCLE AND CELL DIVISION

DPP-4

- Which of the following is not a significance of Mitosis?
  - Repair
  - Growth
  - Maintenance of nucleocytoplasmic ratio
  - Maintenance of chromosome number generation after generation
- How many rounds of DNA replication takes place in Meiosis?
  - 1
  - 2
  - 4
  - Zero
- Which of the following event takes place in zygotene?
  - Crossing over
  - Formation of bivalents
  - Synapsis
  - More than one
- Which of the following process is responsible for producing genetic recombination?
  - Synapsis
  - Chiasmata
  - Crossing over
  - Exchange of segments of sister chromatids between homologous chromosomes
- In which phase terminalization of chiasmata takes place?
  - Zygotene
  - Leptotene
  - Diakinesis
  - Diplotene
- If a gamete has 10 chromosomes then how many bivalents will be produced in its corresponding meiocyte during meiosis?
  - 10
  - 20
  - 30
  - 40
- If a gamete has 20 chromosomes then how many chromatids will be there in pachytene phase in its corresponding meiocyte?
  - 20
  - 10
  - 40
  - 80
- How many rounds of nuclear division takes place in meiosis?
  - 1
  - 2
  - 4
  - Zero
- In which of the following phase recombination nodule appears?
  - Zygotene
  - Leptotene
  - Pachytene
  - Diplotene
- Which of the following get separated in anaphase I?
  - Sister chromatids
  - Homologous chromosomes
  - Nonhomologous chromosomes
  - More than one
- Chromosomes appear X shaped in
  - Leptotene
  - Zygotene
  - Diplotene
  - Diakinesis
- A bivalent contains
  - Two homologous chromosomes
  - 4 chromatids
  - 2 centromeres
  - All of the above
- How many metaphasic plates are formed in metaphase I?
  - 1
  - 2
  - 4
  - 0
- When does desynapsis start?
  - Zygotene
  - Pachytene
  - Diplotene
  - Diakinesis
- Prophase I is relatively ..... as compared to prophase of mitosis
  - Simple
  - Shorter
  - Longer
  - Longer and complex

## ANSWERS KEY

- |        |         |
|--------|---------|
| 1. (D) | 9. (C)  |
| 2. (A) | 10. (B) |
| 3. (D) | 11. (C) |
| 4. (C) | 12. (D) |
| 5. (C) | 13. (B) |
| 6. (A) | 14. (C) |
| 7. (D) | 15. (D) |
| 8. (B) |         |



**\*Note\*** - If you have any query/issue



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