



Time : 1 hour 15 Minute

STD 11 Science Biology
Chapter Based Test

Total Marks : 40

SECTION A*** Choose The Right Answer From The Given Options.[1 Marks Each] [5]**

- Centromere is required for:
(A) Movement of chromosomes towards poles.
(B) Cytoplasmic cleavage.
(C) Crossing over.
(D) Transcription.
- Meiosis occurs in which of the following:
(A) Haploid cells
(B) Mostly haploid cells but occasionally diploid cells
(C) Mostly diploid cells but occasionally haploid cells
- The number of chromosomes after phase I of meiotic division:
(A) Remain unchanged (B) Become doubled
(C) Become halved (D) Exhibit polyploidy
- In which stage of the cell cycle histone proteins synthesized in a eukaryotic cell?
(A) During S-phase. (B) During entire prophase.
(C) During telophase. (D) During G stage of prophase.
- Chiasmata formation takes place during:
(A) Prophase I (B) Metaphase I (C) Anaphase II (D) Telophase I

*** Answer The Following Questions In One Sentence.[1 Marks Each] [6]**

- Name the stage of cell cycle at which one of the following events occur:
Chromosomes are moved to spindle equator.
- Name all floral parts which show mitotic cell division.
- At what stage of cell cycle does DNA synthesis take place?
- Which cell in humans does not have capacity to repair through cell division?
- Mention how long does the cell division proper last in a human cell cycle and what per cent of duration of cell cycle does interphase last.
- Which stage of cell division will you select to study the morphology of chromosomes and why?

SECTION B*** Given Section consists of questions of 2 marks each. [10]**

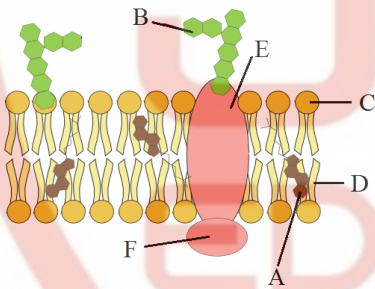
- Describe the following:
Chiasmata
Draw a diagram to illustrate your answer.
- Describe the following:
Bivalent
Draw a diagram to illustrate your answer.
- State the role of centrioles other than spindle formation.
- Mitosis results in producing two cells are similar to other. What would be the consequence if the following irregularities occur during mitosis?
Centromeres do not divide.
- Differentiate between G₁ and G₂-phase

SECTION C

* Given Section consists of questions of 3 marks each.

[9]

- The diagram shows a section of cell membrane. Identify the components labelled A-F.



- Write brief note on the following
Synaptonemal complex.
- Describe the basis on which Gap-1 phase, Synthetic phase and Gap-2 phase of cell cycle are named.

SECTION E

* Given Section consists of questions of 5 marks each.

[10]

- What is the significance of meiosis?
- Comment on the statement - Telophase is reverse of prophase.

॥ ज्ञानं एव श्रमस्य पुंजः ॥