

## VERY SHORT ANSWER Type Questions

|1 Mark|

1. In which mitotic phase do paired chromosomes (sister chromatids) separate and begin moving to opposite ends (poles) of the cell?
2. What are the three periodic divisions of the interphase?
3. Interphase stage is called resting stage, but it is in fact a period of great activity. State whether true or false.
4. Name the components of a mitotic apparatus in an animal cell, that lacks in a plant cell.
5. Where does mitosis take place in plant cell?

## SHORT ANSWER Type I Questions

|2 Marks|

6. Describe the arrangement of chromosomes and their attachment to spindle fibres during mitotic metaphase.
7. Fill in the blanks.

It is observed that heart cells do not exhibit cell division. Such cells do not divide further and exit ..... phase to enter an inactive stage called ..... of cell cycle.

## SHORT ANSWER Type II Questions

|3 Marks|

8. Differentiate between prophase and metaphase of mitotic cell division.
9. Why does a multicellular organism require two types of cell division? Which of two produces the greater number of cells?
10. Why do the chromosomes change into long fine chromatin fibres in the interphase?

## LONG ANSWER Type Questions

|5 Marks|

11. Explain the various stages of mitosis with the alignment of how chromosomes change their pattern from prophase to the end of the telophase.
12. Draw labelled sketches to depict different phases of mitosis in plant cells.
13. Describe the various events taking place during cytokinesis in plant cell with the help of a diagram.