

## VERY SHORT ANSWER Type Questions

[1 Mark]

1. Mention the duration of cell cycle in yeast.

**Ans.** 90 min. approximately.

2. Name a drug that has an inhibitory effect on cell cycle in mitotic stage.

**Ans.** Colchicine drug shows an inhibitory effect.

3. What is the average cell cycle span for a mammalian cell ?

[NCERT]

**Ans.** The average cell cycle span for a mammalian cell is 24 hours.

4. Give the name of the phase between the two successive mitotic divisions.

**Ans.** Interphase is the period between the two successive mitotic cell divisions.

5. What percentage of duration of cell cycle does interphase take?

**Ans.** About 90-96% of total time duration of cell cycle taken by interphase.

6. Does mitosis occur before or after the interphase?

**Ans.** Yes, mitosis can occur before or after the interphase, as dividing phase (meiosis or mitosis) and interphase is the only major phase of a cell cycle.

7. Mitosis cell division helps in regeneration process. How?

**Ans.** Mitosis helps in regeneration by keeping all the somatic cells of an organism genetically similar, so that they are able to regenerate part or whole of the organism.

8. Given that, average duplication time of *E. coli* is 20 minutes. How much time will two *E. coli* cells take to become 32 cells?

**Ans.** 2 hours ( $\because 2^n = 2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$  generations).

9. Can there be DNA replication without cell division?

[NCERT]

**Ans.** Yes, DNA replication takes place during the synthetic stage of interphase in the cell cycle. It is totally independent of cell division. After  $G_2$ -phase a cell may or may not enter into the M-phase.