

WORKSHEET 2

CHAPTER 1 – CELL CYCLE AND CELL DIVISION

A. Match the items in Column A with those in Column B and write down the matching pairs.

Column A

1. Karyokinesis
2. Mitosis
3. Interphase
4. Meiosis
5. Synapsis

Column B

- a. resting phase
- b. reductional division
- c. pairing of homologous chromosome
- d. division of nucleus
- e. somatic cell division

B. Name the following.

1. Shortest phase of mitosis.
2. A membrane that disappears during late prophase.
3. The structure that initiates cell division in animal cells.
4. The kind of cell division which occurs in pollen grains.
5. The kind of cell division normally seen at the tip of root and shoot systems.

C. Fill in the blanks.

1. Condensation of chromosome with centromere occurs in _____ of interphase.
2. Meiosis occurs in _____ cells.
3. _____ is the pairing of chromosomes during meiosis.
4. Exchange of genetic materials between non-sister chromatids is called _____
5. In _____ of interphase, RNA and proteins are synthesized.

D. Choose the correct option.

1. Meiotic division takes place in the cells of
a. eye. b. heart. c. ovary. d. skin.
2. A parent cell has 18 chromosomes in mitosis, the number of chromosomes in daughter cell is
a. 9. b. 18. c. 36. d. 6.
3. DNA replicate during _____ phase.
a. S b. M c. G₁ d. G₂
4. Cross-like structures formed when non-sister chromatids of a pair of homologous chromosomes crossover.
a. Chiasmata b. Centromeres c. Centrosomes d. Aster

Name:

Teacher's signature:

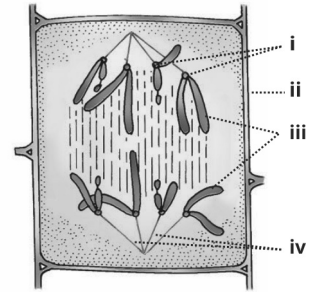
Class: X

Date:

5. A phase which is reverse of prophase is
a. metaphase. b. interphase. c. telophase. d. anaphase.

E. The diagram represents a stage in cell divisions. Study the same and answer the questions given below.

1. Identify the stage of cell division.
2. Name the parts labelled **i**, **ii**, **iii** and **iv**.
3. Where does this type of cell division usually occur?
4. Is the dividing cell shown a plant or an animal cell? Give a reason to support your answer.
5. Name the stage prior to this stage. Which feature will help identify that stage?



ANSWERS

WORKSHEET 2

A. Match the items in Column A with those in Column B and write down the matching pairs.

1. d. 2. e. 3. a. 4. b. 5. c.

B. Name the following.

1. Anaphase
2. Nuclear membrane
3. Centrosome
4. Meiosis
5. Mitosis

C. Fill in the blanks.

1. S phase
2. reproductive
3. Synapsis
4. crossing over
5. G₁ phase

D. Choose the correct option.

1. c. 2. b. 3. a. 4. a. 5. c.

E. The diagram represents a stage in cell divisions. Study the same and answer the questions given below.

1. Anaphase
2.
 - i. Centromere
 - ii. Cell wall
 - iii. Chromatid
 - iv. Spindle fibres
3. In the somatic cells.
4. It is a plant cell as cell wall is present and centrosome is absent.
5. Metaphase. In this phase, the chromosomes arrange themselves on the equatorial plane.