

Gr 10 Cell division

1. What do we call identical strands of a chromosome produced through the replication of the genetic material? *

- ☐ Chromatids
- ☐ Centromeres
- ☐ Centrioles
- ☐ Alleles

2. What is the role of mitosis? *

- ☐ Growth of an organism
- ☐ Repair of damaged cells
- ☐ Replacement of dead cells
- ☐ All of the above

3. A mass of cells, resultant of uncontrolled mitosis, that may be harmful to the organism in which they occur. *

- ☐ Tumour
- ☐ Malignant tumour
- ☐ Benign tumour
- ☐ Metastasis

4. The collective term used to refer to substances that cause cancer. *

- ☐ Chemicals
- ☐ Radiation
- ☐ Carcinogens
- ☐ Viruses

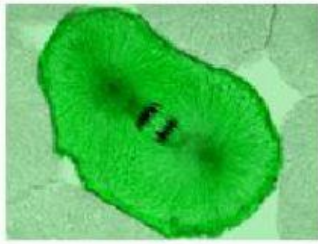
5. Which of the following is an early detection procedure for cancers? *

- ☐ Chemotherapy
- ☐ Mammogram
- ☐ Surgery
- ☐ Radiation

6. Up to 90% of cell's life is spent in... *

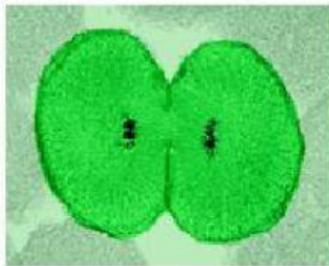
- ☐ Cytokinesis
- ☐ Mitosis
- ☐ Interphase
- ☐ The cell cycle

7. Refer to the diagram below and identify the stage of mitosis depicted. *



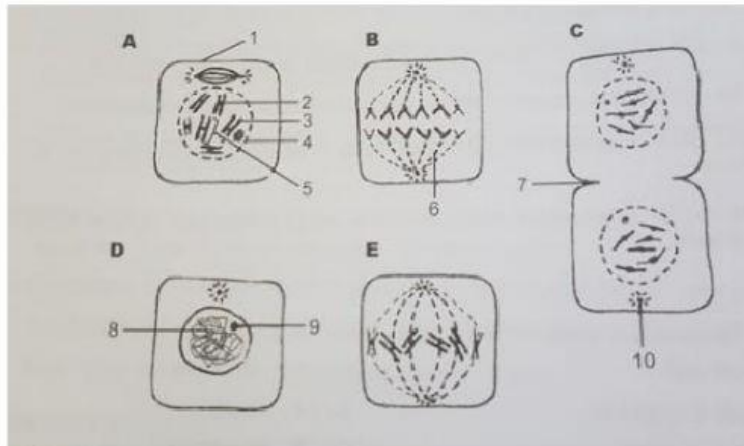
- ☐ Telophase
- ☐ Anaphase
- ☐ Metaphase
- ☐ Interphase

8. Refer to the diagram below and identify the stage of mitosis depicted. *



- ☐ Telophase
- ☐ Anaphase
- ☐ Metaphase
- ☐ Prophase

9. Study the following representations of the phases of cell division below. By making use of the letters only, arrange the phases into the correct sequence. *



- ☐ C, E, D, B, A
- ☐ C, B, E, A, D
- ☐ D, A, C, B, E
- ☐ A, E, B, C, D

10. Referring to the diagram provided above in question 9. The correct labels for parts 2, 4 and 8 respectively are... *

- ☐ centromere, nuclear membrane, chromatin network
- ☐ chromosome, spindle fibre, nucleus
- ☐ centromere, spindle fibre, chromosomes
- ☐ chromatid, nuclear membrane, nucleolus

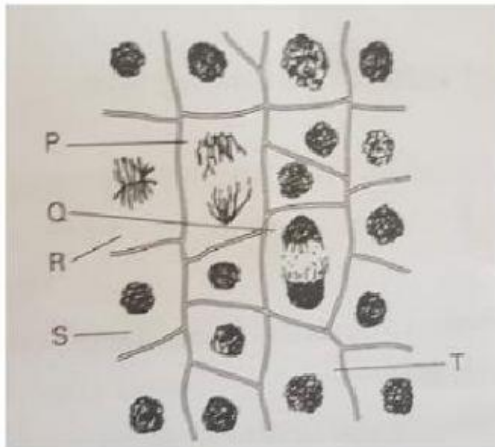
11. Referring to the diagram provided in question 9. The correct labels for parts 7, 9 and 10 respectively are... *

- ☐ cell wall, nucleus, pole
- ☐ invagination, nucleolus, centriole
- ☐ cleavage furrow, centromere, spindle fibre
- ☐ cell membrane, chromatin network, centriole

12. The role of the spindle in mitosis is... *

- ☐ to join two chromatids together
- ☐ to enclose the heredity information
- ☐ to attach to chromosomes, contract and pull the chromosomes to the poles
- ☐ to attach to the membrane and pull it towards the poles
- ☐ Other: _____

13. The diagram shows some plant cells in different stages of the cell cycle. Name the phases of cell division P, Q, R and S in that order. *



- ☐ prophase, metaphase, anaphase, late telophase
- ☐ anaphase, late prophase, early telophase, metaphase
- ☐ metaphase, telophase, prophase, anaphase
- ☐ anaphase, early telophase, metaphase, prophase

14. If a mouse has 20 chromosomes in the nucleus of a cell. How many chromosomes will the two cells that result from mitosis each have? *

- ☐ 10
- ☐ 40
- ☐ 20
- ☐ 22

15. Does mitosis constantly occur in cells? *

- ☐ yes
- ☐ no