

WORKSHEET 2

CHAPTER 1 – CELL – THE STRUCTURAL AND FUNCTIONAL UNIT OF LIFE

A. Choose the correct option.

- Cell theory was proposed by
 - Robert Brown.
 - Robert Hooke.
 - Anton von Leeuwenhoek.
 - Schleiden and Schwann.
- Identify the correct pair from the following.
 - Mitochondria – oxidation of food
 - Lysosomes – powerhouse of the cell
 - Nucleus – kitchen of cell
 - Golgi apparatus – intracellular digestion
- Selectively permeable membrane of the cell is
 - tonoplast.
 - cell wall.
 - nuclear membrane.
 - cell membrane.
- Endoplasmic reticulum acts as
 - protein factory of the cell.
 - kitchen of the cell.
 - circulatory system of the cell.
 - master of the cell.
- Leucoplasts help in
 - photosynthesis.
 - storage of food.
 - imparting colour to the fruits.
 - production of nectar.

B. State whether the following statements are True or False.

- Dictyosomes are found in animal cells.
- Endoplasmic reticulum having ribosomes attached to it are called rough endoplasmic reticulum.
- Centrioles help in spindle formation during cell division.
- Cytoplasm is the living substance containing protoplasm and the nucleus.
- Plant cells have chloroplasts but no mitochondria.

C. Name the structures responsible for the following.

- Organelle that is freely permeable to substances moving in and out of cell.
- Organelle in which breakdown of glucose takes place.
- Organelle that traps solar energy and absorbs carbon dioxide for photosynthesis.
- Organelle that helps in the elongation of plant cells.
- Organelle that is responsible for variations in humans.

Name:

Teacher's signature:

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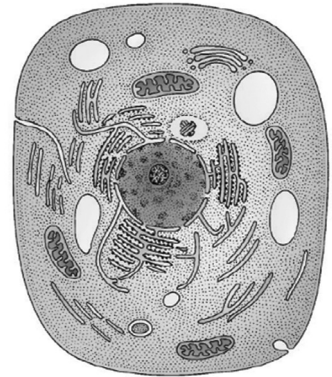
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D. Fill in the blanks.

1. _____ helps in protein synthesis by forming and storing RNA.
2. The first microscope was constructed by _____
3. Plasma membrane helps taking in food and other substances from its external environment by the process of _____
4. _____ are associated with ageing and cellular breakdown.
5. During cell division, the chromatin threads condense and become ribbon-like to form _____

E. Study the figure given alongside and answer the following questions.

1. Is this a plant cell or an animal cell?
2. Which feature helped you to identify this cell?
3. Which part helps in protein synthesis?
4. Which part is also known as powerhouse of the cell?
5. Which part helps in the secretion of mucus, enzymes and hormones?



ANSWERS

WORKSHEET 2

A. Choose the correct option.

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

B. State whether the following statements are True or False.

1. False 2. True 3. True 4. False 5. False

C. Name the structures responsible for the following.

1. Cell wall
2. Cytoplasm
3. Chloroplast
4. Vacuole
5. Nucleus

D. Fill in the blanks.

1. Nucleolus
2. Anton von Leeuwenhoek
3. endocytosis
4. Lysosomes
5. chromosomes

E. Study the figure given below and answer the following questions.

1. Animal cell
2. The following features helped to identify the cell:
 - a. The cell contains only one outer membrane (plasma membrane).
 - b. This cell does not contain large central vacuole (that is only present in plant cells).
3. Ribosomes help in protein synthesis.
4. Mitochondria is also known as powerhouse of the cell.
5. Golgi apparatus helps in the secretion of mucus, enzymes and hormones.