

ANSWERS TO TEXTBOOK QUESTIONS

Objective Questions

A. Multiple choice questions.

1. b 2. c 3. b 4. b 5. d
6. c 7. a

B. Match the following:

1. c 2. f 3. a 4. i 5. b
6. d 7. h 8. g 9. e

C. Fill in the blanks.

1. Organelles 2. Plastids 3. Cytoplasm 4. vacuole 5. Centriole
6. Eukaryot 7. Prokaryotic

D. State whether 'true' or 'false'.

1. True 2. False 3. False 4. True 5. False
6. False 7. True 8. True 9. True 10. True
11. True 12. False 13. False 14. True 15. False

E. Give one word answers.

1. Cell 2. Unicellular 3. Multicellular 4. Cell wall 5. Tissue
6. Cytoplasm 7. Golgi bodies 8. Nucleus 9. Genes 10. Prokaryotic
11. Eukaryotic 12. Chromatin 13. Centriole 14. Centrioles

Theoretical Questions

A. Short answer type questions.

- The cell includes (i) cell membrane, (ii) cytoplasm and (iii) the nucleus.
- Slide A shows plant cell.
- Chromosomes are present in the nucleus.
- Chromosomes control all the life functions and help in the transfer of characters from parents to their children.
- Cell is the structural and functional unit of living organisms. A tissue is a group of cells.
- Ostrich lays the largest egg. Fresh egg is a single cell and not a group of cells.
- Ribosomes are the sites where protein synthesis takes place.
- (1) Many similar cells together form a tissue.
(2) Different tissues together form an organ.
(3) Many organs together form an organ system.
(4) Organ systems together form an organism.

B. Long answer type questions.

- Protoplasm is the entire living substance in a cell. Cytoplasm excludes cell membrane and nucleus.
- Differences between plant and animal cells.

Plant cell	Animal cell
Plants cells are larger as compared to animal cells.	Animal cells are smaller as compared to plant cells.
The cell wall is present outside the plasma membrane in plant cell.	The cell wall is absent in animal cells.
Plastids (chloroplast) is present in plant cells.	Plastids are absent in animals cells.
Centrosome are absent in plant cells.	Centrosome are present in animals cells.
Vacuoles are large in plant cells.	Vacuoles are small or absent in animal cells.

3. Almost all big multicellular plants and animals bear organs which coordinate together to work for the organism. There are many organ systems in an organism. For example, human body has digestive system; respiratory system; nervous system; blood circulatory system; excretory system and so on.
Note: Explain each organ system as learnt in the previous classes.
 4. Amoeba, a single celled almost transparent animal, is soft and irregular in shape. For movement and to engulf food it throws out finger-like projections called pseudopodia (Pseudo = false; podia = feet) all around its cell changing its shape continuously.
 5. It is not a plant character since the shell around an egg is not a cell wall.
 6. Nerve cell is the longest cell in our body. It helps to transmit nerve impulses.
 7. Chromosomes are paired rod-like structures carrying genes on them. Genes carry the characters from parents to the children hence children get mixed characters from the parents.
 8. Golgi apparatus or Golgi complex or Golgi body is more prominent in animal cells than in plants. Golgi apparatus helps in secretions such as saliva from salivary glands; tears from tear glands; and has many other functions to perform. Golgi apparatus is less organised in plant cells.
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