

CELL STRUCTURE AND FUNCTIONS

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<1M>

1. From the list given below pick out the unicellular organisms: Amoeba, hen, octopus, paramecium, bacteria

- (A) Amoeba, octopus (B) hen, octopus, bacteria
(C) amoeba, paramoecium, bacteria (D) paramoecium, hen

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- (A) i, ii and iv (B) i and ii (C) i, ii and iii (D) i, iii and iv

2. The term cell was coined by _____ when he was examining the slice of _____ under the microscope.

- (A) Robert Hooke, cork (B) Schlieden, cork
(C) Robert Hooke, cheek cells (D) Schlieden, onion

3. Spherical, columnar, cuboidal, define the _____ of the cell

- (A) Size (B) Shape (C) Colour (D) Volumes

4. Smallest cell in size observed in bacteria-

- (A) Cytoplasm (B) Cynobacterial (C) Mycoplasmas (D) Acetobacter

5. Largest cell, which can be observed with an unaided eye-

- (A) Ostrich's egg (B) Nerve cell (C) Green algae chara (D) Elephant's egg

6. In the egg, central yellow part is called _____ and is surrounded by white part called _____.

- (A) albumen, yolk (B) Yolk, albumen (C) Mycoplasma, yolk (D) Amoeba, albumen

7. Plasma membrane and rigid outer layer cell wall both give the _____ to the cell.

- (A) Shape (B) Colour (C) Length (D) Size

8. Match the following :

- (i) Protoplasm (A) Kernel
(ii) Nucleus (B) Condensed chromatin
(iii) Organelles (C) Liquid substance
(iv) Chromosomes (D) smaller components of cell

- (A) (i)-(A); (ii)-(D); (iii)-(C); (iv)-(B) (B) (i)-(B); (ii)-(A); (iii)-(C); (iv)-(D)
(C) (i)-(C); (ii)-(D); (iii)-(B); (iv)-(A) (D) (i)-(C); (ii)-(A); (iii)-(D); (iv)-(B)

9. The liquid present in the is surrounded by _____.

- (A) protoplasm (B) nuclear membrane
(C) cell membrane (D) cell wall

10. The structure responsible for the transfer of characters from the parents to next generation

- (A) Chromosomes (B) Lysosomes (C) Mitochondria (D) Plastid

11. Plastids give colour to the plant cells, chloroplast is _____ in colour

- (A) Red (B) Yellow (C) Green (D) Brown

12. Select the correct alternative:

- (i) The outermost layer in plant cells is cell wall.
(ii) Activities of the cell is controlled by nucleus
(iii) 90% by weight, protoplasm is made up of compounds of elements carbon, oxygen, nitrogen and hydrogen.
(iv) Plastids are found in both animal as well as plant cells.

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- (A) (i) & (iv) (B) (i), (ii) & (iii) (C) (i) & (ii) only (D) all of the above

13. Droplets of substances dissolved in water in the cytoplasm which appear as empty spaces called _____

- (A) Mitochondria (B) Nucleus (C) Vacuole (D) Chromatids

14. _____ cells have larger vacuoles than the _____ cells.

- (A) Amoeba, animal (B) Animals, plants (C) Plant, animal (D) Amoeba, plant

15. Different tissues join to form a

- (A) Cell (B) Organ (C) Organ System (D) Organism

16. Tomato is red due to

- (A) Chloroplast (B) Vacuole (C) Plastid (D) Cell wall

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- (A) (i), (iii) & (iv) (B) (i) only (C) (i) & (ii) (D) (i), (ii) & (iii)

18. The coloured dye used to stain the onion peel before observing under a microscope is

- (A) Safranin (B) Glycerin (C) Iodine solution (D) Methyl eve blue

19. Yellow yolk of egg represents-

- (A) Single cell. (B) Half cell. (C) Zygote. (D) Unfertilized egg.

20. Fluid surrounding the nucleus is called-

- (A) Nucleoplasm (B) Cytoplasm (C) Protoplasm (D) Both (a) and (b)

21. In plant cells, nucleus lies-

- (A) At periphery (B) In the center
(C) In between the center and periphery (D) Near the nucleus

22. The undefined nuclear region in bacteria is:

- (A) Nucleoid (B) Nucleus (C) Chromosome (D) Nucleolus

23. The organisms that lack membranes are:

- (A) Virus (B) Bacteria (C) Protozoans (D) Fungi

24. The photosynthetic pigment is:

- (A) Chlorophyll (B) Chromophyll (C) Chromoplast (D) Leucoplast

25. Name the cell part that has tiny holes.

- (A) Centrosomes (B) Cell membrane (C) Mitochondria (D) Chloroplast

26. The is used to observe the cell.

- (A) Telescope (B) Microscope (C) Electroscope (D) Kaleidoscope

27. Mention the layer outside the plasma membrane of a plant cell.

28. Name the outermost layer of an animal cell.

29. Name the cells having branches structure.

30. Why cells could not be observed before seventeenth century?

31. What is the basic structural and functional unit of all living organisms?
32. Which organism has the smallest cell?
33. Which is the largest cell visible by unaided eye?
34. Give two examples of unicellular organisms.
35. Name the jelly like substance present between the nucleus and the cell membrane.
36. Name the living substance of the cell.
37. Which organelle is called control centre of the activities of the cell?
38. Give two examples of prokaryotes.
39. Name the green plastids present in cell.
40. Name the cell that can be seen with unaided eye
41. Give one example of multicellular organisms
42. Every organism's life from _____
43. Name the cells in human beings that can change their shape
44. The small spherical body found in the nucleus is called _____
(a) nuclear membrane (b) cytoplasm (c) vacuole (d) nucleolus
- <2M>
45. What is the function of cell membrane?
46. What are the basic components of cell?
47. Why do plant cells have cell wall?
- <3M>
48. Describe the variations in shape and size of cells.
49. Explain why chloroplasts are found only in plant cells?
50. Name an organism that has no definite shape and what are those projections that appear and disappear in it. List its uses
51. Write three differences between prokaryotic and eukaryotic cells.
52. Where are chromosomes found in a cell? State their function.
53. Draw the diagram of plant and animal cell. And label the parts
- <5M>
54. Make a sketch of the human nerve cell. What function do nerve cells perform?
55. Write short notes on the following:
a) Cytoplasm b) Nucleus
56. Differentiate between plant and animal cell.