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# CELL THEORY AND THE BASIC STRUCTURE OF CELL PYQs (2014-2024)



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Which one among the following statements is correct ?

- (a) Prokaryotic cells possess nucleus.
- (b) Cell membrane is present both in plant and animal cells.
- (c) Mitochondria and chloroplasts are not found in eukaryotic cells.
- (d) Ribosomes are present in eukaryotic cells only.



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7. Match List-I with List-II and select the correct answer using the code given below the Lists :

*List-I*  
(Cell Organelle)

*List-II*  
(Function)

- |                 |                            |
|-----------------|----------------------------|
| A. Mitochondria | 1. Photosynthesis          |
| B. Chloroplast  | 2. Protein synthesis       |
| C. Ribosomes    | 3. Intracellular digestion |
| D. Lysosomes    | 4. ATP formation           |

*Code :*

- |     |   |   |   |   |
|-----|---|---|---|---|
| (a) | A | B | C | D |
|     | 3 | 1 | 2 | 4 |
| (b) | A | B | C | D |
|     | 3 | 2 | 1 | 4 |
| (c) | A | B | C | D |
|     | 4 | 1 | 2 | 3 |
| (d) | A | B | C | D |
|     | 4 | 2 | 1 | 3 |



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22. Lysosome is formed from which of the following cell organelles?

- (a) Nucleus
- (b) Endoplasmic reticulum
- (c) Golgi bodies
- (d) Ribosomes

29. Which one of the following cell organelles contains DNA?

- (a) Golgi apparatus
- (b) Mitochondrion
- (c) Lysosome
- (d) Endoplasmic reticulum





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116. Which one of the following statements is correct about the cell membrane ?

- (a) It is made up of cellulose.
- (b) It is a permeable structure for all substances.
- ☒ (c) It is flexible and enables the cell to engulf many materials.
- ☐ (d) It does not allow diffusion of gases like oxygen and carbon dioxide.



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**17. In plant cells**

- (a) Nucleus does not need a membrane but chloroplasts are surrounded by their own membrane.
- ✓ (b) Nucleus and chloroplasts are surrounded separately by their own membrane.
- (c) Nucleus is surrounded by membrane but chloroplasts do not need membrane.
- (d) Both nucleus and chloroplasts are not surrounded by any membrane.



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18. Which one of the following statements about starch and glycogen is correct ?

- (a) Both starch and glycogen are found in plant cells.
- (b) Both starch and glycogen are found in animal cells.
- ✓ (c) Starch is present in plant cells and glycogen is present in animal cells.
- (d) Both starch and glycogen are present in plant cells as well as animal cells.



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**101.** In plant cells, RNA is present in

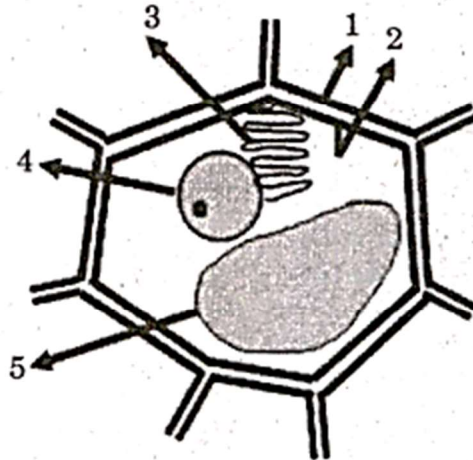
- (a) cytoplasm only
- (b) nuclei and cytoplasm only
- (c) nuclei, cytoplasm, mitochondria, chloroplast and endoplasmic reticulum
- (d)* nuclei, cytoplasm, mitochondria, chloroplast and ribosomes





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14. In the following simplified diagram of a plant cell, five parts/organelles are marked from 1 to 5 :



Which one of the following correctly represents the above parts/organelles ?

- (a) 1 – cell membrane; 2 – cell wall;  
3 – vacuole; 4 – endoplasmic reticulum;  
5 – nucleus
- (b) 1 – cell wall; 2 – cell membrane;  
3 – endoplasmic reticulum; 4 – vacuole;  
5 – nucleus
- (c) 1 – cell wall; 2 – cell membrane;  
3 – endoplasmic reticulum; 4 – nucleus;  
5 – vacuole
- (d) 1 – cell wall; 2 – cell membrane;  
3 – vacuole; 4 – endoplasmic reticulum;  
5 – nucleus



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**26.** Microbodies found to be present in plant and animal cells contain

- (a) broken down membranes
- (b) enzymes
- (c) acidic fluids
- (d) waste metabolites



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**85. Which one of the following cell organelles is known as 'suicide bags' of a cell ?**

- (a) Lysosomes
- (b) Plastids
- (c) Endoplasmic reticulum
- (d) Mitochondria



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**119.** Which one of the following is *not* found in animal cells ?

- (a) Free ribosomes
- (b) Mitochondria
- (c) Nucleolus
- (d) Cell wall





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**79. Chlorophyll in photosynthetic prokaryotic bacteria is associated with**

- (a) plastids
- (b) membranous vesicles
- (c) nucleoids
- (d) chromosomes



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