

CLASS-8  
Science

- A. 1. Robert Hooke; 2. Elephant, ant
- B. 1. (c); 2. (b); 3. (a); 4. (a)
- C. 1. Plastids; 2. egg; 3. prokaryotes
- D. 1. True; 2. True; 3. False; 4. True
- E. 1. tissue; 2. single; 3. vacuole; 4. necloplasm
- F. 1. Eukaryotic cells have a well organised nucleus with a nuclear membrane.
2. In 1664, Robert Hooke observed a thin slice of dried cork under a microscope. He saw that the cork was made up of thousands of tightly packed rows of compartments. He coined the term cell for these compartments.
3. Nucleus is the control room of cell and is surrounded by a double membrane called nuclear membrane.
4. (i) Vacuole store food and a variety of nutrients that a cell might need to survive.  
(ii) They can even store the waste products so that the rest of the cell is protected from contamination.
- G. 1. (a) Plastids : These organcells are not present in animal cells. Plastids which contain the green color pigment chlorophyll are called chloroplast.
- (b) Cytoplasm : The matter inside the cell membrane is called cytoplasm. It consists of a jelly like fluid with various structures, such as the nucleus, floating in it.
2. (a) Prokaryotic cells : The cells which do not have a well organised nuclear region due to the absence of nuclear membrane are called prokaryotic cells. Such as bacteria, blue-green algae.
- (b) Eukaryotic cells : The cells which have a well organised nucleus with nuclear membrane are called eukaryotic cells.
3. Cell membrane : A cell is essentially a tiny bag of living matter. The covering of this bag is called the cell membrane or plasma membrane. It maintains the shape and size of the cell and protects its contents.
4. Size of Cells
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|-----------------------|--|
| 150-250 $\mu\text{m}$ | Mycoplasma bacteria                      |
| 1-10 $\mu\text{m}$    | Most prokaryotic cells                   |
| 9 $\mu\text{m}$       | Human red blood cell                     |
| 3 meters              | Length of a nerve cell of giraffe's neck |