

CHAPTER 5- THE FUNDAMENTAL UNIT OF LIFE
QUESTION BANK

1 MARK QUESTIONS

1. Define cell?

Cell is the basic structural and functional unit of life. In Latin cell means small compartments.

2. The cells which do not possess a well defined nucleus. These cells are primitive without having membrane bound organelles?

Prokaryotic cells example bacteria.

3. The discovery of cell was done by which scientist?

or

Name the scientist who discovered cell for the first time.

Robert Hooke in 1665 discovered cell in the thin slice of cork under microscope.

4. Name the scientist who discovered cell in the pond water with advanced microscope.

Leeuwenhoek.

5. Who discovered nucleus in the cell?

Robert brown

6. Name the largest cell found?

Ostrich egg

7. Name the book written by Robert Hooke on his discovery of cell?

Micrographia

8. Who discovered nucleus in the cell?

Robert brown.

9. Cell theory was proposed by which scientist?

Schleiden and Schwann.

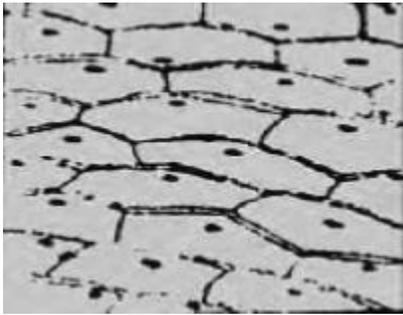
10. Which scientist coined the term protoplasm?

Purkinjee.

11. 'Cells arise from the pre-existing cells' this concept was given by which scientist?

Virchow.

12. To which of the substance does Robert Hooke sees the resemblance of slice of the cork from a tree?
Honeycomb.
13. Name the cell present in the body which is of greatest length?
Nerve cell
14. Name the smallest and largest cell in human body.
Smallest- sperm
Largest – ovum
15. With the help of a diagram show the cells in the onion peel.



Cells of onion peel

SHORT ANSWER TYPE QUESTION ANSWERS

1. Give an example of
- (a) Prokaryotic organisms
 - (b) Eukaryotic organisms
 - (c) Unicellular organism
 - (d) multicellular organism

Ans: (a) Bacteria and blue green algae.
(b) Humans and plants
(c) Amoeba and yeast
(d) Mango tree and tiger

2. Write a short note on cell theory.

The postulates of cell theory:

- (a) All the organisms are made up of cell or group of cells.
- (b) Cell is the structural and functional unit of life.
- (c) All cells arise from the pre-existing cells.

3. Differentiate between prokaryotic and eukaryotic cells

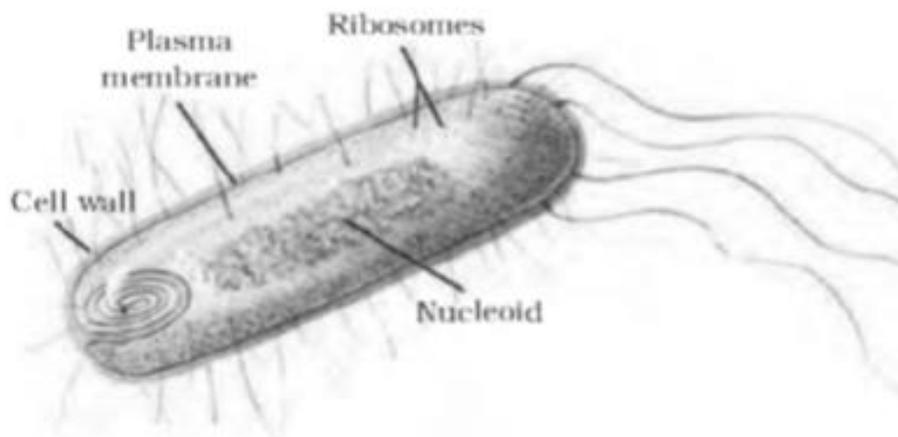
Characteristic	Prokaryotic cell	Eukaryotic cell
Size	Generally small	Generally large
Nucleus	Absent	Present
Chromosome	Single	More than one
Nucleolus	Absent	Present
Membrane bound cell organelles	Absent	Present. Like mitochondria, plastids, endoplasmic reticulum, etc
Cell division	By fission or budding	By Mitotic or meiotic

4. Differentiate between unicellular and multicellular organisms.

Characteristics	Unicellular organism	Multicellular organism
Cell number	Single cell	Large number of cells
Function	All functions are performed by single cell	Different cells perform different specific functions.
Division of labour	Not performed	Cells specified to perform different functions.
Reproduction	Involves the same single cell	Specialised cells, germ cells take part in reproductions
Life span	Short	Long

5.(a)What are prokaryotic cells?

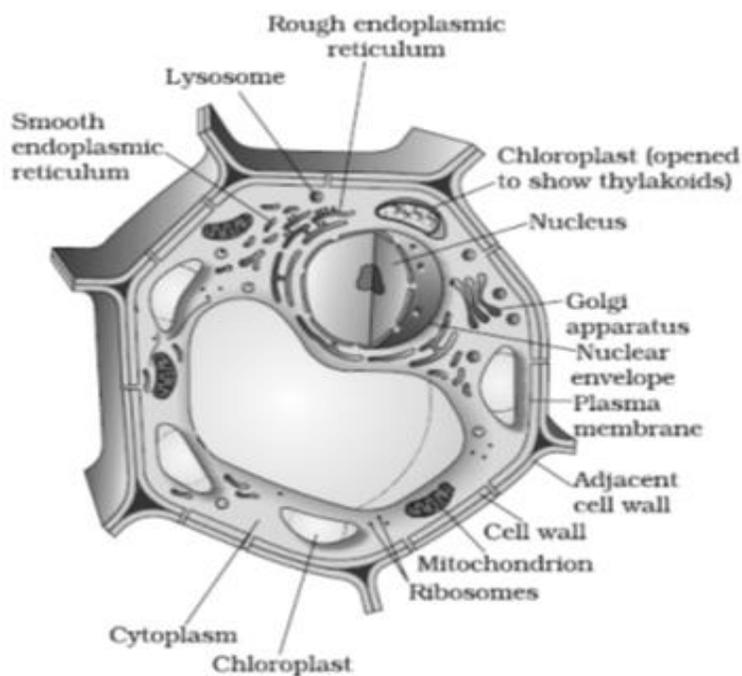
The cells which do not possess a well defined nucleus are called prokaryotic cells. These cells are primitive without having membrane bound organelles. Example: bacteria, blue green algae.



(b) what are eukaryotic cells?

The cells which are advanced and possess a well defined nucleus are known as eukaryotic cells. Membrane bound organelles like chloroplast, mitochondria, Golgi bodies, etc are present. These cells are further divided into plant and animal cells.

PLANT CELL



ANIMAL CELL

