



# BIOLOGY

## BOOKS - LAKHMIR SINGH & MANJIT KAUR

### CELL STRUCTURE AND FUNCTIONS

#### Exercise

1. which instrument was essential for the study of cell ?



[Watch Video Solution](#)

2. what is the basic similarity among all the living organisms (plants and animals )?



[Watch Video Solution](#)

3. name the scientist who observed a thin slice of cork through a microscope and coined the term "cell".



[Watch Video Solution](#)

4. name the outermost layer of an animal cell .

A. Cell wall

B. Cell membrane

C. Endoplasmic reticulum

D. Plastids

**Answer: B**



**Watch Video Solution**

5. Which part of the cell contains organelles?



**Watch Video Solution**

6. name any two organelles present in a cell .



**Watch Video Solution**

7. which part of a cell carries out respiration ?

A. Endoplasmic reticulum

B. Golgi bodies

C. Nucleus

D. Mitochondria

**Answer: D**



**Watch Video Solution**

**8.** what are the units of inheritance in living organism?



**Watch Video Solution**

9. which is the largest floating body generally in the centre of a cell?



[Watch Video Solution](#)

10. What is the function of nucleus in a cell?



[Watch Video Solution](#)

11. what do the chloroplasts contain ?



[Watch Video Solution](#)

**12.** what kind of cells are surrounded by a cell wall ?



**Watch Video Solution**

**13.** what sort of cells do not have a cell wall around them ?



**Watch Video Solution**

**14.** name the layer which is outside the cell membrane of a plant cell .



**Watch Video Solution**

**15.** how is the outside of a plant cell different from that of an animal cell ?



**Watch Video Solution**



**16.** name the organelle of a plant where phtosynthesis takes place .



**Watch Video Solution**

**17.** which part of a plant cell protects outside of the cell ?



**Watch Video Solution**

**18.** which part of a plant cell releases energy from food ?



**Watch Video Solution**

**19.** what causes the red colour in tomatoes ?



**Watch Video Solution**

**20.** which of the two has a large vacuole : a plant cell or an animal cell ?



[Watch Video Solution](#)

21. Name any two parts which are present in plant cells but not in animal cells



[Watch Video Solution](#)

22. which cells transmit messages between the brain and other parts of the body ?



[Watch Video Solution](#)

**23.** which cells in the human body can contract ?



**Watch Video Solution**

**24.** name the spindle-shaped cells present in the human body ?



**Watch Video Solution**

**25.** state an important characteristic of muscle cells.



**Watch Video Solution**

**26.** name a single cell which can change its shape .



**Watch Video Solution**

**27.** name one single cell which behaves like a complete organism .



**Watch Video Solution**

**28.** name one cell which can be seen easily with naked eye and one cell which can be seen only through a microscope .



**Watch Video Solution**

**29.** state whether the following statements are

true or false :

unicellular organisms have one-celled body .

A. True

B. False

C. All of these

D. None of these

**Answer: A**



**Watch Video Solution**

**30.** state whether the following statements are true or false :

muscle cells are branched .



**Watch Video Solution**

**31.** State whether the following statements are true or false :

amoeba has irregular shape .

A. True

B. False



C. Both A and B

D. None of these

**Answer: A**



**Watch Video Solution**

**32.** state whether the following statements are true or false :

all the cells in our body are alike .



**Watch Video Solution**

**33.** state whether the following statements are true or false :

a hens egg is a group of cells .



**Watch Video Solution**

**34.** state whether the following statements are true or false :

the basics living unit of an organism is organ .



**Watch Video Solution**

**35.** name the smallest unit of life



**Watch Video Solution**

**36.** what is a cell in biology ?



**Watch Video Solution**

**37.** what are the basics parts of all the cells ?



**Watch Video Solution**

**38.** what parts are present only in plant cell ?



**Watch Video Solution**

**39.** what controls the flow of substances in and out of a cell ?



**Watch Video Solution**

**40.** which part of a cell controls all the activities of the cell ?





[Watch Video Solution](#)

**41.** name the animal cell which is long and has thread like branches .



[Watch Video Solution](#)

**42.** what is the function of chloroplasts in a plant cell ?



[Watch Video Solution](#)

**43.** Name an organism which has no definite shape , and it keeps on changing its shape .

A. Amoeba

B. Pitcher plant

C. Rabbit

D. Mouse

**Answer: A**



**Watch Video Solution**

**44.** name one cell in human body which is a spherical in shape .



**Watch Video Solution**

**45.** which organism has the smallest cell ?



**Watch Video Solution**

**46.** name the biggest cell.



**Watch Video Solution**

**47.** name two animale organs and two plant organs .



**Watch Video Solution**

**48.** name the plant organ which is responsible for :  
making of food .



**Watch Video Solution**



**49.** name the plant organ which is responsible for :

absorption of water and minerals .



**Watch Video Solution**

**50.** which of the two does not have a true nucleus .prokaryotic cell or eukaryotic cell.



**Watch Video Solution**

51. name one prokaryotic cell and one eukaryotic cell .



[Watch Video Solution](#)

52. fill in the blanks with suitable words :

cella were first observed in cork by .....in  
1665.



[Watch Video Solution](#)

**53.** fill in the blanks with suitable words :

what is brick to a house is ..... To an organism.



**Watch Video Solution**

**54.** Fill in the blanks with suitable words :

The cytoplasm and nucleus make up the .....

- A. Cell membrane
- B. Plasma membrane
- C. Protoplasm

## D. Chloroplast

**Answer: C**



**Watch Video Solution**

**55.** fill in the blanks with suitable words :

the shape and size of a cell is related to its

.....

A. density

B. viscosity

C. length

D. function

**Answer: D**



**Watch Video Solution**

**56.** fill in the blanks with suitable words :

the bacteria cells are .....to .....micrometre in length .



**Watch Video Solution**

**57.** fill in the blanks with suitable words :

the smallest unit of life is a .....



**Watch Video Solution**

**58.** fill in the blanks with suitable words :

tissues make up the .....



**Watch Video Solution**

**59.** fill in the blanks with suitable words :

organs systems make up an .....



**Watch Video Solution**

**60.** fill in the blanks with suitable words :

cells were first observed in cork by .....in  
1665.

A. Robert Cook

B. Robert Hooke

C. James Cook

D. James Hooke

**Answer: B**



**Watch Video Solution**

**61. fill in the blanks with suitable words :**

cells make up.....



**Watch Video Solution**



**62.** fill in the blanks with suitable words :

organs make up .....



**Watch Video Solution**

**63.** why are plant and animal specimens usually stained with dyes before observes microscopes ?



**Watch Video Solution**

**64.** name one stain used for dying plant and animal specimen to observe under microscope.



**Watch Video Solution**

**65.** What is tissue ?



**Watch Video Solution**

**66.** give two examples of tissues.



[Watch Video Solution](#)

67. what is an organ ?



[Watch Video Solution](#)

68. give two examples of organs .



[Watch Video Solution](#)

69. what is organ system ?



[Watch Video Solution](#)

70. give two examples of organ systems in animals .



[Watch Video Solution](#)

71. name the two main organ system in plants.



[Watch Video Solution](#)

**72.** which of the following are plant organs and which are the animal organs ?

brain,leaf,lungs,roots,stem,kidneys,flower,heart



**Watch Video Solution**

**73.** what are the functions of the following organs ?

a. heart b.brain c. roots d. leaves



**Watch Video Solution**

**74.** what is the shape of red blood cells in human blood ?



**Watch Video Solution**

**75.** what functions do red blood cells perform ?



**Watch Video Solution**

76. Write down the differences between prokaryotes and eukaryotes.



[Watch Video Solution](#)

77. name two prokaryotes and two eukaryotes .



[Watch Video Solution](#)

78. why are nerve cells long and have branches

?



**Watch Video Solution**

**79.** what is the other name of a nerve cell ?



**Watch Video Solution**

**80.** why could cells not be observed and studied for thousand of years ?



**Watch Video Solution**



**81.** state the cell theory of organisms .



**Watch Video Solution**

**82.** explain the functions of mitochondria in a cell .



**Watch Video Solution**

**83.** Make a sketch of the human nerve cell.

What function do nerve cells perform?



**Watch Video Solution**

**84.** Make a sketch of the human nerve cell.

What function do nerve cells perform?



**Watch Video Solution**

**85.** where are chromosomes found in a cell ?



**Watch Video Solution**

**86.** state the chromsomes work .



**Watch Video Solution**

**87.** What are genes?



**Watch Video Solution**

**88.** Where are genes located?



**Watch Video Solution**

**89.** what is plastid ?



**Watch Video Solution**

**90.** what is the name of green plastids present in plant cell ?



**Watch Video Solution**

**91.** what is the size of an ostrich egg ?



**Watch Video Solution**

**92.** Ostrich egg:is it a single cell or a group of cells ?



**Watch Video Solution**

**93.** What are the functions of cell wall in plant cells?



**Watch Video Solution**

**94.** name the two cells which are found in animals and two which are found in plants ?



**Watch Video Solution**

**95.** what is cytoplasm ?



**Watch Video Solution**

**96.** what is cytoplasm's function .



**Watch Video Solution**

**97.** what is protoplasams ?



**Watch Video Solution**

**98.** how does protoplasams work ?



**Watch Video Solution**

**99.** what is unicellular organisms ?



**Watch Video Solution**

**100.** name two unicellular organisms



**Watch Video Solution**

**101.** what is multicellular organisms?



**Watch Video Solution**

**102.** name two multicellular organisms .



**Watch Video Solution**



**103.** Draw a diagram of an animal cell and label the various parts.



**Watch Video Solution**

**104.** Draw a neat labelled diagram of plant cell and label its parts.



**Watch Video Solution**

**105.** Explain why chloroplasts are found only in plant cells?



**Watch Video Solution**

**106.** an amoeba cell can change its shape and white blood cell in human blood can also change its shape .



**Watch Video Solution**

**107.** what is the difference between an amoeba cell and a white blood cell ?



**Watch Video Solution**

**108.** out of amoeba cell and white blood cell ,which one is--a. Eukaryotic cell and b. prokaryotic cell ?



**Watch Video Solution**

**109.** state the differences between a plant cell and an animal cell .



**Watch Video Solution**

**110.** which of the following are prokaryotic cells ?

Amoeba cell , bacterium cell , human cheek cell, blue-green algae cell , onion peels cell .



**Watch Video Solution**

**111.** which is the following are eukaryotic cells ?

Amoeba cell , bacterium cell , human cheek cell, blue-green algae cell , onion peels cell .



**Watch Video Solution**

**112.** the organelles which provide energy for all the activities of a cell are

A. chloroplasts

B. mitochondria

C. golgi bodies

D. ribosomes .

**Answer: B**



**Watch Video Solution**

**113.** in a living cell chromatin is present in

A. cytoplasam

B. chloroplasts

C. nucleus

D. vacuole

**Answer: C**



**Watch Video Solution**

**114.** The cell wall in onion peel cell is made of

A. starch

B. gelatin

C. cellulose

D. cell sap

**Answer: C**



Watch Video Solution

**115.** the group of similar cells which work together to perform a particular function is called

A. organ

B. organelle

C. organism

D. tissue

**Answer: D**





[Watch Video Solution](#)

**116.** a long and branched animal cell is

- A. muscle cell
- B. epithelial cell
- C. nerve cell
- D. cartilage cell

**Answer: C**



[Watch Video Solution](#)

117. which of the following organelle is not found in the root cells of a plant ?

A. nucleus

B. vacuole

C. mitochondria

D. chloroplasts

**Answer: D**



**Watch Video Solution**

**118.** which is the following is not a unicellular organism ?

A. Amoeba

B. Hydra

C. Paramecium

D. Yeast

**Answer: B**



**Watch Video Solution**

**119.** the part of a cell which plays a role in inheritance is

A. nuclues

B. cytoplasm

C. plasma membrane

D. mitochondria

**Answer: A**



**Watch Video Solution**

**120.** the basic similarity among all the living organisms is that they are made up of

A. tissues

B. organs

C. cells

D. organ systems

**Answer: C**



**Watch Video Solution**

121. the structural and functional unit of life called cell was discovered by

A. robert boyle

B. charles darwin

C. robert koch

D. robert hooke

**Answer: D**



**Watch Video Solution**

**122.** Which of the following cell does not have a nucleus ?

A. white blood cell

B. red blood cell

C. nerve cell

D. muscle cell

**Answer: B**



**Watch Video Solution**

**123.** the parts which are not present in an animal cell is

A. cell membrane B. chloroplasts C. cell wall D. mitochondria

A. A and B

B. B and C

C. A and d

D. B and D

**Answer: B**



**Watch Video Solution**



124. all the living mater in a cell is called

A. endoplasam

B. protoplasam

C. cytoplasam

D. cell sap

**Answer: B**



**Watch Video Solution**

**125.** which of the following is a plant cell

A. cartilage cell

B. neuron

C. epidermal cell

D. epithelial cell

**Answer: C**



**Watch Video Solution**

**126.** The egg cell measuring about  $17\text{ cm} \times 13\text{ cm}$  is most likely that of:

A. Humming Bird

B. Hen

C. Elephant

D. Ostrich

**Answer: D**



**Watch Video Solution**

127. which of the following have cells walls ?

A. epidermal cell B. epithelial C. mesophyll cell

D. liver cell

A. A and B

B. B and C

C. A and C

D. B and D

**Answer: C**



**Watch Video Solution**

**128.** which of the following are prokaryotes ?

A .protozoa B . Blue- green algae C. fungi D.  
bacteria

A. A and B

B. B and C

C. A and C

D. B and D

**Answer: D**



**Watch Video Solution**

**129.** which of the following human system includes oesophagus ?

A. respiratory system

B. circulatory system

C. digestive system

D. reproduction

**Answer: C**



**Watch Video Solution**

**130.** which of the following cell can change their shape ? A. white blood cell B . Amoeba cell C. red blood cell D. euglena cell

A. A and B

B. B and C

C. A and D

D. B and D

**Answer: A**



**Watch Video Solution**

**131.** the non-living part of a tomato cell is its

A. cell membrane

B. nucleus

C. chloroplasts

D. cell wall

**Answer: D**



**Watch Video Solution**



**132.** the parts P and Q are present only in plant cell they are not present in animal cells . The part P contains a green pigment called R whereas part Q is made of a tough material S . The part P takes part in the food making process whereas part Q gives shape and support to the plant cell .

what is P ?



[Watch Video Solution](#)

**133.** the parts P and Q are present only in plant cell they are not present in animal cells . The part P contains a green pigment called R whereas part Q is made of a tough material S . The part P takes part in the food making process whereas part Q gives shape and support to the plant cell . WHAT IS Q ?



**Watch Video Solution**

**134.** the parts P and Q are present only in plant cell they are not present in animal cells .

The part P contains a green pigment called R whereas part Q is made of a tough material S .

The part P takes part in the food making process whereas part Q gives shape and support to the plant cell . what is R and S ?



**Watch Video Solution**

**135.** A , B, C and D are the basic parts of all the cells the part A contains thread like structured called E which transfer the characteristics from parents to their from the parents to their offsprings . The part B uses glucose and oxygen to produce energy whereas part C controls the movement of substances into the cell and out of the cell the part D is a transparent jelly - like material what could A B C AND D AND E be ?



**Watch Video Solution**

**136.** X and Y are the two types of cell the cells X have a well organized nucleus which is separated from the cytoplasm by the nuclear membrane . On the other cells Y do not have a real nucleus their nuclear material is in direct contact with the cytoplasm .

what type of cells are X and Y ?



**Watch Video Solution**

**137.** X and Y are the two types of cell the cells X have a well organized nucleus which is separated from the cytoplasm by the nuclear membrane . On the other cells Y do not have a real nucleus their nuclear material is in direct contact with the cytoplasm .

give one example each of cells like X and Y



**Watch Video Solution**

**138.** the cytoplasm of the cells of a tomato plant contains organelles X having different pigments which impart different colors of the leaves of tomato plant and its fruits

what is the general name of the organelles X?



**Watch Video Solution**

**139.** the cytoplasm of the cells of a tomato plant contains organelles X having different pigments which impart different colors of the

leaves of tomato plant and its fruits

what is the Name and color and function of the organelles X present in the leaves of tomato plant and fruits .



[Watch Video Solution](#)

**140.** the cytoplasm of the cells of a tomato plant contains organelles X having different pigments which impart different colours of the leaves of tomato plant and its fruits



what is the colour of X organelles X which are present in the ripe fruits of tomato plant .



[Watch Video Solution](#)

**141.** cells make up A, A makes up B, makes up C and finally C makes up an organism . What are A B and C ?



[Watch Video Solution](#)