The cell

ORAL QUESTIONS

A. Answer these questions orally.

- 1. Who gave the cell theory?
- 2. Who discovered cells and when?
- 3. What is the shape of muscle cells?
- 4. Why are chloroplasts green in colour?
- 5. What are coloured plastids called?
- 6. What are found suspended in the cytoplasm?
- 7. Do all cells have the same shape?

B. Match the columns.

COLUMN A

1. Nerve cell

- 2. Liver cell
- 3. Red blood cell
- 4. Acetabularia
- 5. Ostrich egg

COLUMN B

- (a) About 10 cm long
- (b) $7 \mu \text{ in diameter}$
- (c) More than a metre long
- (d) About 7 cm in diameter
- (e) $20 \mu 30 \mu$ in diameter

PUZZLES/QUIZ

C. Find atleast nine terms that are related to Cells.

A	Р	K	Е	Q	Α	G	Α	W	Y	Α
N	M	N	Е	R	V	Е	С	Е	L	L
Е	F	U	Р	Е	Н	N	Р	Χ	W	Е
V	Α	С	U	О	L	Е	Y	D	Q	Е
С	Н	L	О	R	Ο	Р	L	A	S	Т
I	Y	Е	G	K	A	G	W	Y	Z	Ι
Т	D	U	Н	G	W	M	Е	R	V	S
Y	R	S	K	Т	Z	W	Ο	Q	В	S
U	Α	L	W	Е	Q	О	U	Е	L	U
R	I	В	О	S	О	M	Е	U	В	Е
L	Е	U	С	О	Р	L	A	S	T	Α

D.	Unscramble the words given below into mear given alongside.	ingful words. Take help from the clues
1.	I U E S T S	
	(a group of cells having same structure, perform	ning same functions)
2.	U E C L O V A	
	(Central water-filled space found in a plant cel	1)
3.	L S C U U E N	
	(the control centre of the cell)	
4.	O M M S O R E H S C	
	(thread like structures in the nucleus that carry	genes)
	CLASS TE	
E.	MCQ - Tick (✓) the correct option.	
1.	Which of the following cells found in humans	can change their shape?
	(a) Nerve cell (b)	Muscle cell
	(c) White blood cell (d)	Red blood cell
2.	Which of these cells found in the leaves of plan	nts are kidney-shaped?
	(a) Xylem (b)	Phloem
	(c) Plastids (d)	Guard cells
3.	Who observed single-called organisms in rain	water?
	(a) Robert Hooke	
	(b) Anton Van Leeuwenhoek	
	(c) Robert Brown	
	(d) Schleiden	
4.	Several organs join together to form	
	(a) A cell (b)	A tissue
	(c) A human (d)	An organ system

5.	Which of the following statements is incorrect?	
	(a) Amoeba is a unicellular organism	
	(b) Chromoplasts are colourless plastids	
	(c) Leucoplasts are colourless plastids	
	(d) Mitochondria is called the power house of the cell	
F.	Very short answer questions.	
1.	Why are cells coloured with some dye while studying under a microscope?	
2.	What is the process of colouring cells while studying under a microscope?	
3.	Name a few unicellular organisms.	
4.	What is a tissue?	
5.	What is a nervous tissue?	
6.	What is the function of a nerve cell?	
7.	What is the function of xylem cells?	
8.	What do tissues together form?	
9.	What is an organ formed of?	
10.	Name two tissues of which brain is formed of.	
11.	Name any five organ systems found in human beings.	

12.	vvn	at are the different snapes in which cells are found?
13.	Wri	te the shapes of the following cells:
	(a)	Muscle cell
	(b)	Nerve cell
	(c)	White blood cell
	(d)	Guard cell
14.	Giv	e the full form of RNA.
15.	Is co	ell wall found in animal cells?
16.	Wh	at is the full form of DNA?
17.	Do	animal cells have vacuoles?
18.	Wh	at is the other name for false feet found in <i>Amoeba</i> ?
19.	Nan	ne one cell organelle which is found only in
	(a)	Plant cell
	(b)	Animal cell

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G.	Short answers	questions.

1. Differentiate between.

2.

3.

4.

5.

(a) Plant cell and Animal cell

(a) Plant cell and Animal cell	
PLANT CELL	ANIMAL CELL
(b) Unicellular organisms and Multicellula	r organisms
UNICELLULAR ORGANISMS	MULTICELLULAR ORGANISMS
What does the cell theory proposed by Schl	eiden and Schwann state?
What is a cell membrane? What are its fund	etions?
Each organ system is associated with a spec	ific function. Justify this statement with two
examples.	ine fametion, justify this statement with two
What is a cell wall? What are its functions?	
The following with the first the functions.	

6.		A plant cell		
	(b)	An animal cell		
7.	Wh	at is nucleoplasm?		
8.	Wh	at is nucleolus?		
9.	Wh	at are chromosomes?		
10.	Wh	at are chromatin threads?		
11.	Wh	at are genes? What is their function?		
12.	Wh	at are the functions of nucleus?		
13.	Wh	at is the function of mitochondria?		

4.	What is endoplasmic reticulum? What are its functions?
5.	What are the functions of golgi bodies?
6.	What is the function of lysosomes?
7.	What is the function of ribosomes?
8.	What are plastids?
9.	What is the colour of chloroplasts? What is their function?
0.	What is the function of chromoplasts?
1.	What are leucoplasts? What is their function?
2.	What are vacuoles?

H. Long answer questions.

1.	Draw wo	ell-labelled diagram of an animal cell.	
2.	Size of c	ells varies considerably in different living organisms–Justify this sta	tement.
3	Differen	t shapes of cells are related to their specific functions–Justify this sta	atement
J.		t shapes of cens are related to their specific functions—justify this st	atement.

4.	Wri	Write a note on the discovery of cell.					
		HOME ASSIGNM	ENT				
I.	Thi	nk and answer.					
1.	cell men	na observed a slide under a microscope. She save was irregular in shape, had a darkly stained results in shape, the cell cytoplasm. Whis nal cell or a plant cell?	nucleus in the centre and a thin plasma				
2.	Wh	at do you think is the red colour of carrots an	d tomatoes due to?				
3.	(a)	Look at the diagram shown alongside. Is it a	plant cell or an animal cell?				
	(b)	Name any three cell organelles which are common in both plant cell and animal cell.					
	(c)	Label the diagram shown alongside.					

WORKSHEET

J.	Give reasons for the following.				
1.	Chromosomes are called hereditary vehicles.				
2.	Mitochondria is called the power house of the cell.				
3.	The nuclear envelope is perforated by nuclear pores.				
4.	Chromosomes are visible only in the cells undergoing division.				
5.	In a plant cell, the nucleus is shifted to one side.				