

MIDTERM 1 REVIEW

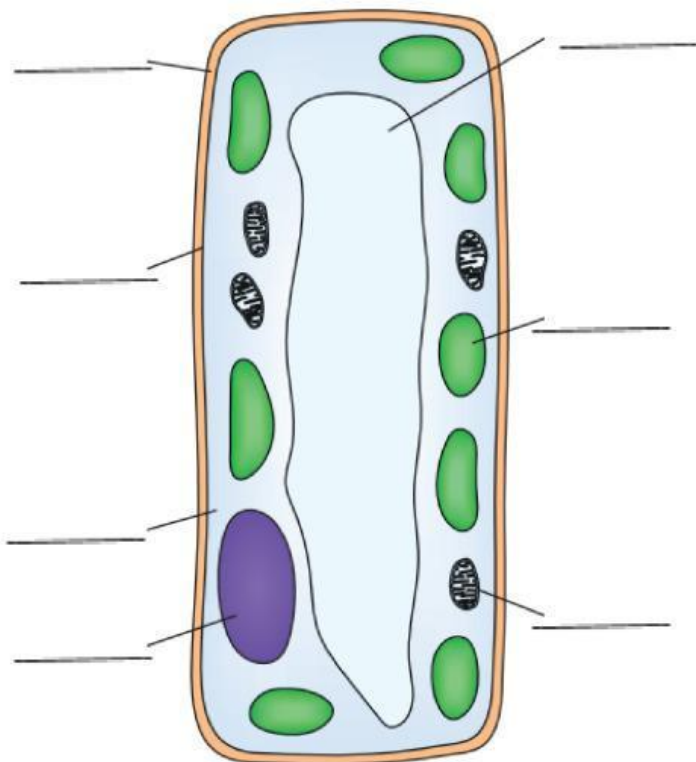
UNIT 1 CELLS

QUESTION 1: Plant cell structure and function

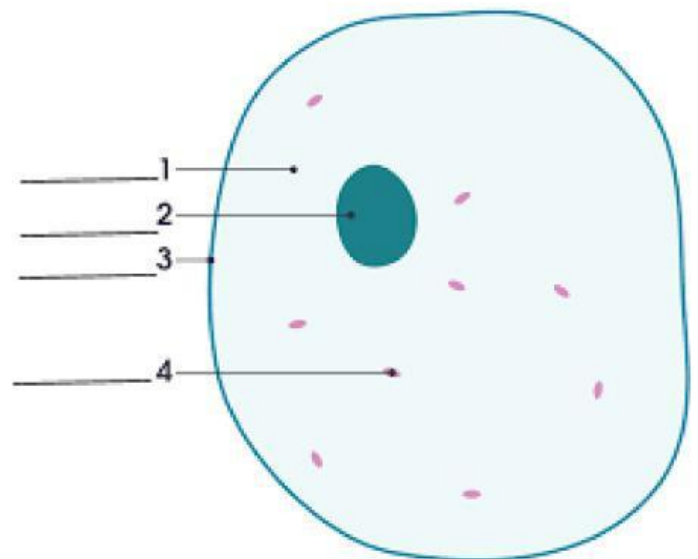
The diagram shows a plant cell and an animal cell.

Add labels to the diagram.

chloroplast nucleus cytoplasm sap vacuole mitochondrion
cell membrane cell wall



PLANT CELL



ANIMAL CELL

QUESTION 2: Match the functions of the plant cell.

Names of parts

cell wall

nucleus

cytoplasm

sap vacuole

mitochondrion

cell membrane

chloroplast

Functions of parts

where the plant makes its food

where energy is released from food

a thin layer around the outside of the cell that controls what goes into and out of the cell

controls the activities of the cell

a space containing a solution of sugars in water

a clear jelly where chemical reactions happen

a strong layer of cellulose that helps to hold the cell in shape

QUESTION 3: Comparing plant and animal cells

Animal cells	Plant cells
have a cell membrane	have a cell membrane

Three of the statements below need to be written twice, once in each column.

- have a cell wall
- have a nucleus
- have cytoplasm
- sometimes have chloroplasts
- do not have a cell wall
- never have chloroplasts
- have mitochondria
- have a sap vacuole
- do not have a sap vacuole

QUESTION 4: Complete the table to show which structures are found in plant cells and in animal cells.

Structure	Is it found in plant cells?	Is it found in animal cells?
cell wall		

QUESTION 5: Specialised cells. The diagrams show some specialised cells.

For each diagram:

- write a heading showing the name of the cell
- write a sentence to state the function of the cell.

Choose from these headings:

root hair cell

ciliated cell

neurone

palisade cell

red blood cell

Choose from these functions:

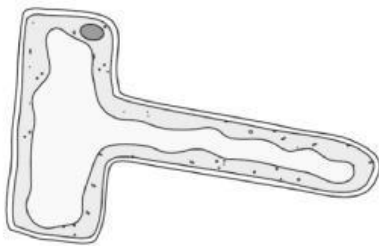
transports
oxygen

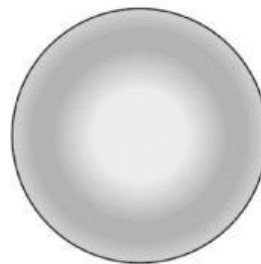
absorbs water
from the soil

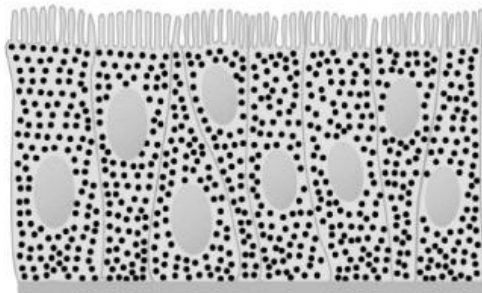
transmits
electrical
signals

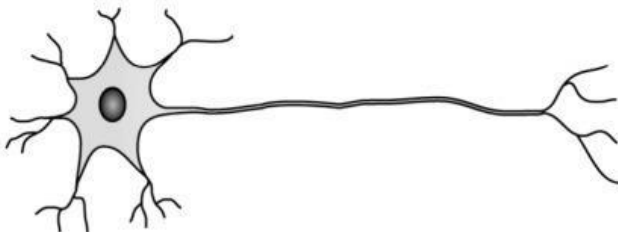
sweeps mucus
upwards

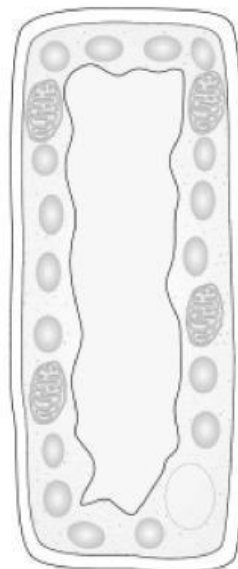
makes food by
photosynthesis



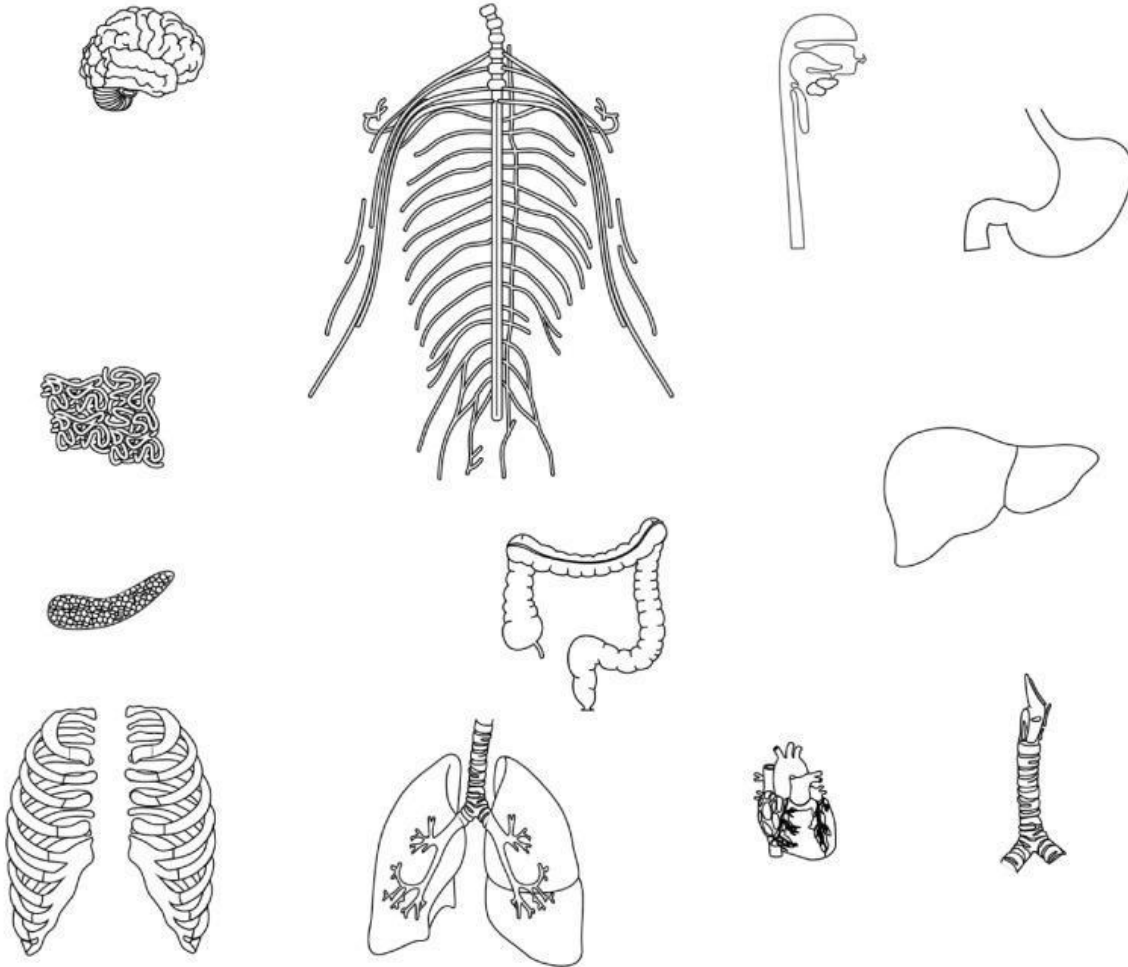








QUESTION 5 Human organs and systems



Colour each of the organs according to the organ system it belongs to.

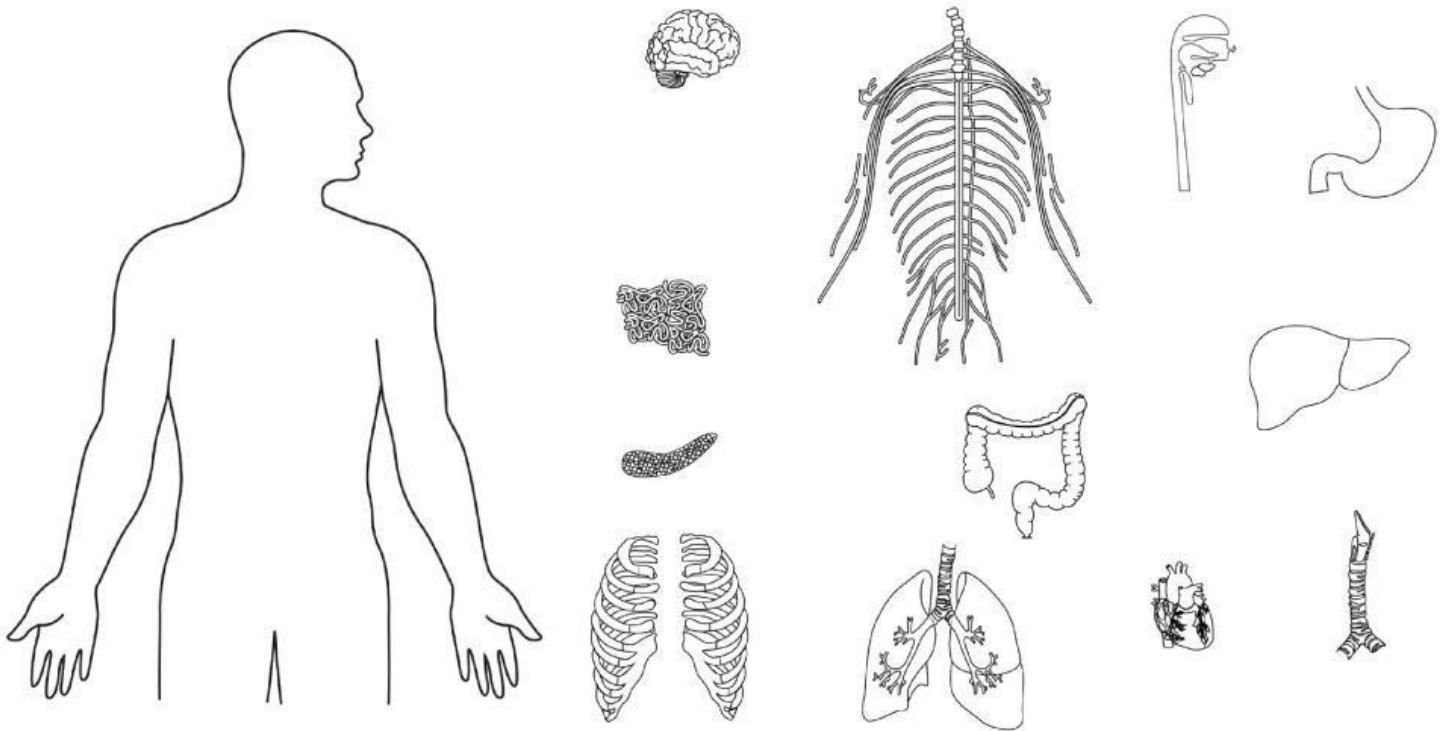
respiratory system -green

digestive system -yellow

nervous system -blue

circulatory system -red

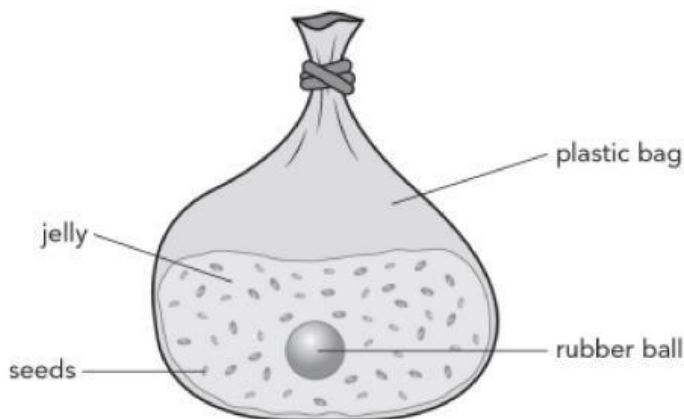
QUESTION 6:



stomach brain mouth heart small
intestine lungs trachea (windpipe) spinal cord

On the outline, draw and label these organs in their correct positions. You may need to draw some organs partly over the top of others.

QUESTION 7:



Arun makes a model animal cell.

- a. Name the part of a cell represented by:
 the rubber ball _____
 the seeds _____

- b Arun wants to make his model into a model of a plant cell.

Tick (✓) **two** things that he should do.

Put the model into a box to represent a cell wall. ☐

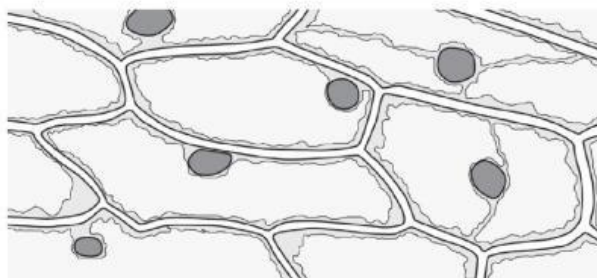
Remove the seeds. ☐

Remove the rubber ball. ☐

Add some green peas to represent chloroplasts. ☐

Colour the jelly green to represent chlorophyll. ☐

QUESTION 8:



Zara looks at a piece of onion using a microscope.

- a. What name is given to a group of cells like this? Circle the correct answer.

tissue

organ

organ system

organism

b. Zara can see a nucleus in each of the onion cells. Write down the function of the nucleus in a cell.

QUESTION 9:

a. Red blood cells transport oxygen around our bodies. Their structure helps them to do this.

Tick (✓) the two correct statements about how the structure of red blood cells is related to their function.

- € They contain haemoglobin, which carries oxygen.
- € They have a large vacuole, which contains cell sap.
- € They have a strong cell wall, so that they do not get damaged easily.
- € They have chloroplasts to help them to transport food.
- € They have no nucleus to make more space for carrying oxygen

b. Root hair cells are also adapted for their function. Complete the sentences.

The function of root hair cells is _____.

They have _____ to help them to do this.

QUESTION 10:

a. The table lists some structures found in plant cells and animal cells.

Complete the table by placing ticks in the correct boxes.

Structure	Found in plant cells	Found in animal cells
cell wall		
nucleus		
cytoplasm		

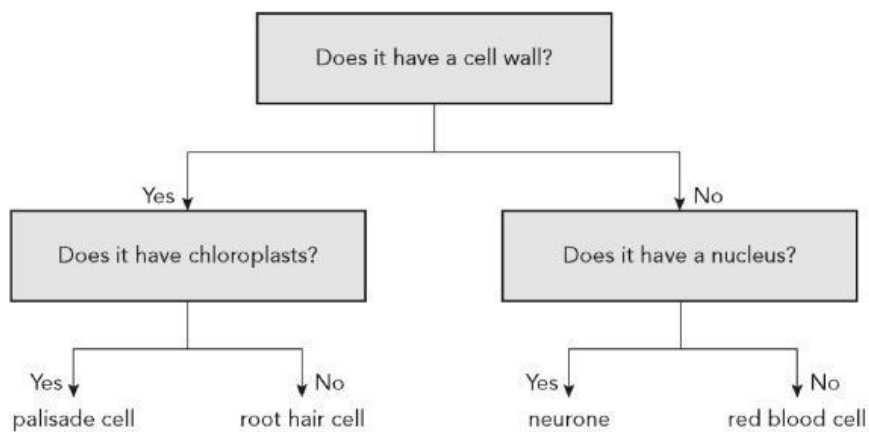
b Describe the function of the cell membrane.

QUESTION 11:

The table describes four different cells, A, B, C and D.

Cell	Description
A	has no nucleus does not have a cell wall
B	has a nucleus and a cell wall does not have chloroplasts
C	has a nucleus, a cell wall and chloroplasts
D	has a nucleus and a long strand of cytoplasm does not have a cell wall

Use the key to identify each of the four cells. Write your answers in the spaces underneath the key. **[4]**



Cell A

is _____

Cell B

is _____

Cell C

is _____

Cell D

is _____

QUESTION 12:

Marcus is looking at a panda at the zoo.



a He writes down five characteristics of the panda.

Tick ✓ the **two characteristics** that are not shared by all living organisms.

- € It has hair.
- € It respires.
- € It can reproduce.
- € It can move.
- € It has a blood system.

b. Draw a diagram of a cell from the panda. Label your diagram.

A large empty rectangular box with a thin green border, intended for drawing a diagram of a cell from the panda. The box is currently blank.

Which statement about viruses is correct?

Tick **one** box.

- € Viruses are made of cells.
- € Viruses can only reproduce when they are inside another cell.
- € Viruses excrete carbon dioxide.

€ Viruses can be grouped together to form tissues.