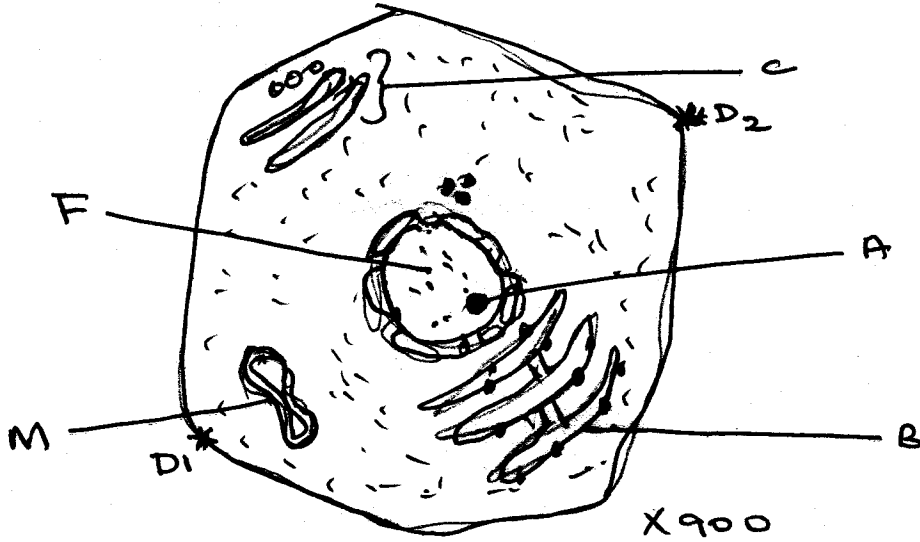


NAME: _____ CLASS: _____ ADM: _____

1. The diagram below shows the structure of a liver cell as seen using an electron microscope.



i) Name the parts labeled (4mks)

- A _____
- B _____
- C _____
- M _____

ii) Name the fluid labeled F (1mk)

iii) State the functions of parts labeled a) A (2mks)

M (1mk)

iv) Calculate the actual diameter of the cell between points D1 and D2 (4mks)

v) Name one organelle shown in the diagram that is usually absent in plant cells. (1mk)

2. A light microscope had the following magnifying lenses.

<u> Eyepiece lens magnification</u>	<u> Objective lens magnification.</u>
10	5
10	10
10	50

i) Give the lenses combination that would give.

(i) The highest magnification (2mks)

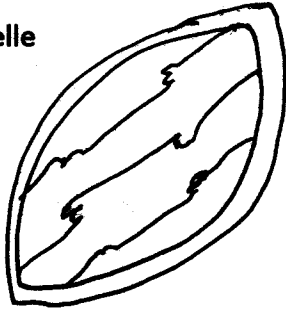
ii) The widest field of view (2mks)

iii) A larger part of the specimen (2mks)

iv) Smaller part of the specimen (2mks)

3. Below are common organelles found in both animal and plant cells. Identify each and state their function.

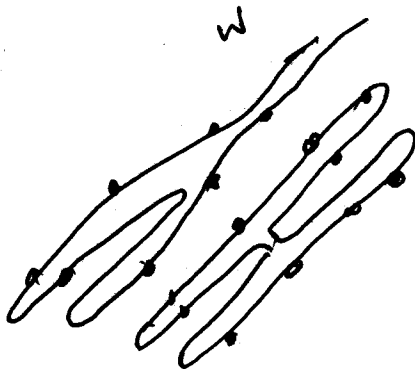
a) Organelle



Identity _____ (1mk)

Function _____ (2mks)

b)



Identity for w _____ (1mk)

Function _____ (2mks)

4. Which organelle would be abundant in cells of

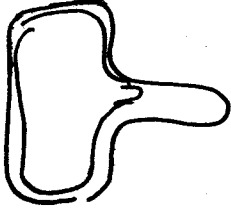
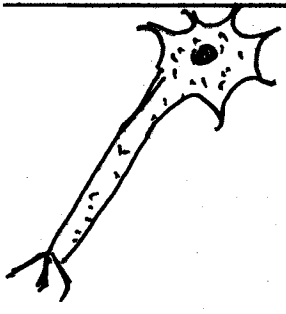
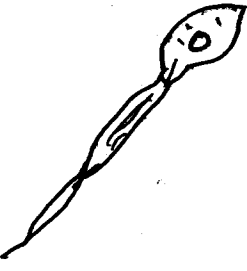
i) Rapidly respiring tissue

(1mk)

ii) Secretory gland

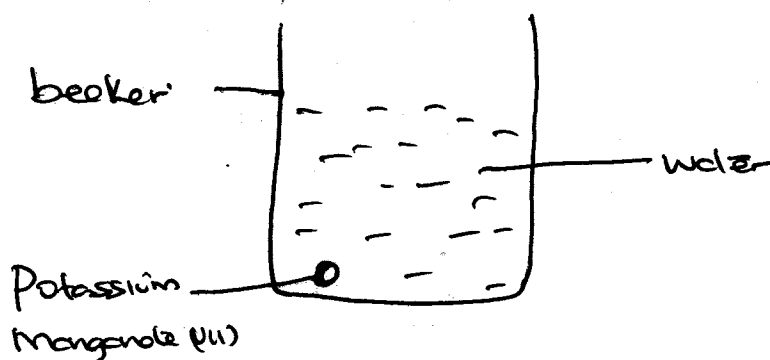
(1mk)

5. Complete the table below on some specialized cells

Cell identity	Adaptation	Function (4mks)
 <p>Identify</p>		
 <p>Identify</p>		
 <p>Identify</p>		

6. The cell membrane is said to be semi permeable. Explain what the above statement means. (2mks)

b) A Form One student set up the expt. Below to investigate a certain physiological process



i) Which physiological process was being investigated _____ (1mk)

ii) State observation (2mks)

iii) Explain above observation. (2mks)

7. State 3 roles of the above physiological process in animal and plants. (3mks)

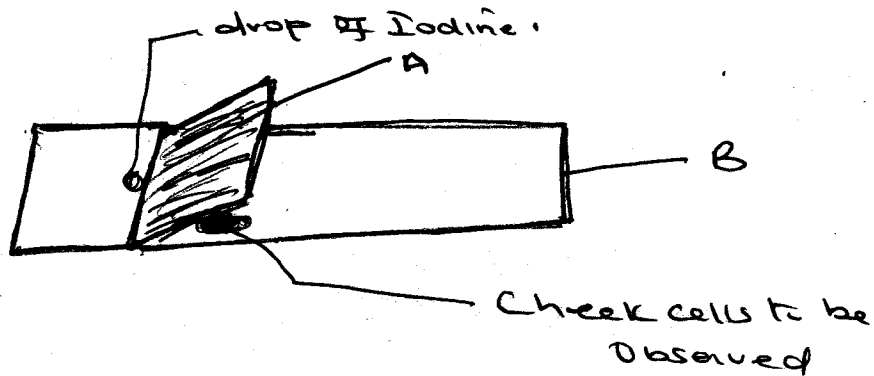
i)

ii)

iii)

b) Define the term Osmosis _____ (2mks)

8. The diagram below shows preparation of cheek cell for viewing under light microscope.



i) Name the apparatus labeled _____ (2mks)

A

B

ii) State the importance of Iodine applied above. _____ (2mks)

9. Draw a simplified diagram showing a plant cell and label only the parts that are absent in animal cell (as seen under light microscope). (Back page) _____ (5mks)