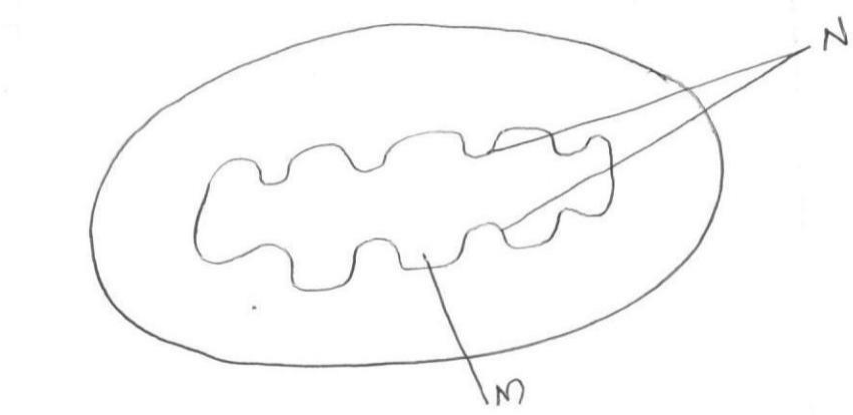
FORM 2 TERM 3 2020
BIOLOGY

3. Study the diagram of cell organelles shown below and answer the question that follow.



a. identify the organelle (1mk)

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b) State the function of the organelle (1mk)

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c) Name the parts labelled M and N (2mk)

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2. Name three forces that aid in the movement of water upwards in the xylem (3mks)

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3. What is plasmolysis ? (1mk)

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4. State two functions of the light stage of photosynthesis (2mks)

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5. Study the diagram of the mammalian tooth and answer the questions that follow. (2mks)

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a. Giving a reason identify the tooth (2mks)

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b. State one adaptation of the tooth to its function (1mk)

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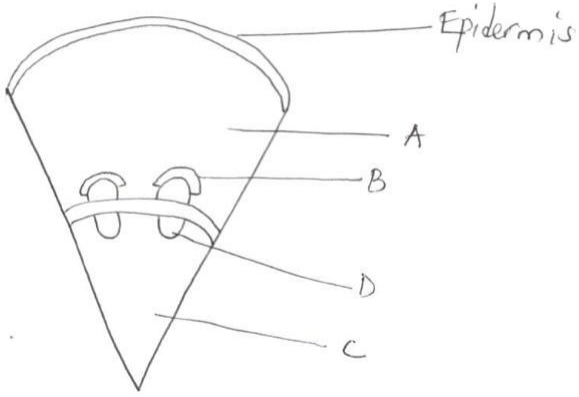
6. The diagram below shows a section of a dicotyledonous stem



Name the tissues marked A, B,C and D and state the function of each (4mks)

Tissues	Function
A	
B	
C	
D	

7. State the function of the following cell organelles

a. Lysososmes (1mk)

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b. Golgi apparatus (1mk)

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8. State two functions of the large intestine in human being ` (2mks)

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9. State three importance of osmosis in plants (3mks)

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10. Black jack (Bidens pilosa) belongs to the family composted. What is the plant?

a. genus (1mk)

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b. Species (1mk)

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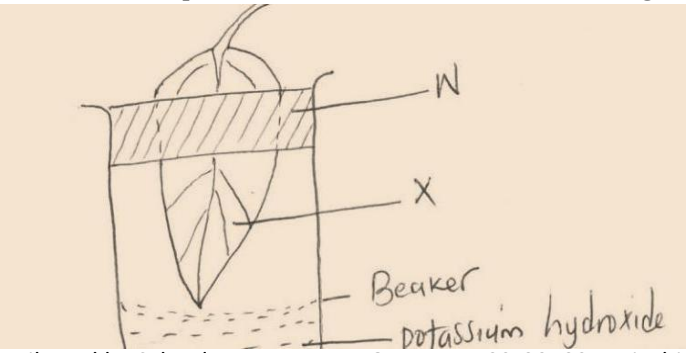
11. The diagram below shows an experiment that was carried out to investigate photosynthesis on a leaf from a potted plant.



The plant was kept in darkness for 48hrs before the experiment. The set up was left in the light for several hrs, and then the leaf was tested for starch.

a) What results were expected in regions X and W? (2mks)

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b) State the role of potassium hydroxide in the experiment (1mk)

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12. a) Explain how the following factors affect the rate of diffusion?

i) surface area to volume ratio (2mks)

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ii) Temperature (1mk)

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b. Outline three roles of active transport in the human body (3mks)

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13. Give two reasons why xylem vessels are more efficient than tracheid Clements in transportation of water.(2mks)

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14. Account for the changes that would occur if a marine amoeba species was transferred into a freshwater pond (2mks)

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15. Name the disease caused by the deficiently of vitamin B, (1mk)

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16. Distinguish between open and closed circulatory system (2mks)

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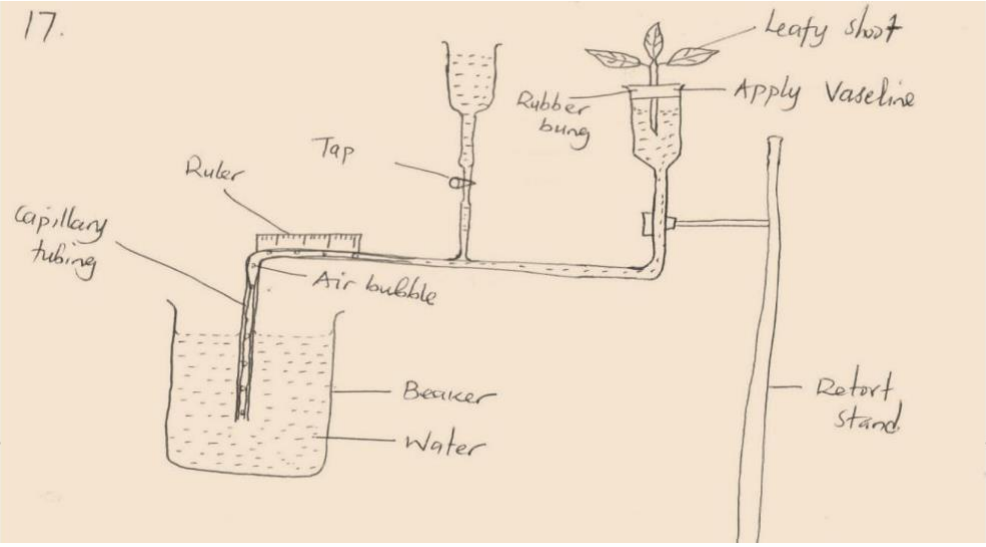
17. The apparatus shows below was used by a group of students in a class experiment



a) Name the apparatus and state its use (2mks)

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b) What would happen to the rate of movement of the air bubbled under each of the following conditions? Give reason in each.

i. When the plant is moved from sea level to mountain peak (2mks)

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ii. When the leaves of the twigs are coated with a film of petroleum jelly (1mk)

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c) Why was the Vaseline applied on the rubber bung? (1mk)

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18. State two significance of transpiration (2mks)

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