Name..... Class.....

1. You are provided with Visking tubing labelled Q, a piece of thread and a solution labelled K. Dip the Visking tubing in distilled water to moisten it, open it, and then tie one end tightly with the thread provided. Half-fill the Visking tubing with solution K then tie the open end of the tubing tightly. **Ensure** solution K DOES NOT spill out of the tubing. Immerse the Visking tubing into distilled water in a beaker. Ensure that the Visking tubing is completely immersed in the distilled water. **(Solution K is Mixture of Starch and Glucose)**

Leave the set-up for 20 minutes. Record your observations after 20 minutes.

(a)(i) Observation (1 mark)

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(ii)Explain your observations in (a) (i)above (2 marks)

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(b)Remove the Visking tubing carefully. Ensure the contents of the Visking tubing do not mix with that of the beaker. Using the reagents provided, test for the food substance present in the Visking tubing and the beaker. (8 marks)

Solution in the Visking tubing

Food substance	**Procedure**	**observations**	**Deductions**
Starch			
Reducing Sugar			

Solution in the beaker

Food substance	Procedure	observations	Deductions
Starch			
Reducing Sugar			

(c) Explain the observations and deductions in (b) above. (2 marks)

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(d) State one application of the physiological process demonstrated above. (1 mark)

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2.The diagrams below show different types of fruits. Use them to answer the question that follow.



R1



R2



R3



R4



R5



R6

(a)(i) Name the type of placentation shown in photograph R5 and R6. (2 marks)

R5……

R6……

(ii) Draw a well labelled diagram of one on the fruits in photograph R1 in the diagram above.

(3 marks)

(b)State the mode of dispersal and give reasons for the fruits shown in photograph R1, R2 and R3.

(6 marks)

R1……

Reason

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R2……

Reason

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R3 ……

Reason

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(c) State **two** adaptations of the fruit shown in photograph R4. (2 marks)

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3.The diagrams below show different bones of the appendicular skeleton. Use them to answer the question that follows.



S1



S2



S3



S4

(a)(i) On the photograph, label three parts of the bone labelled S1 (3 marks)

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(ii)State the function of at least one part that you have labelled in the photograph above. (1 mark)

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(b) Giving reasons identify S2 and S3 . (4 marks)

S2 ……

Reasons

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S3 ……

Reasons

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(c) (i) Name structure S4 (1 mark)

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(ii) State two adaptations of structure named in (c)(i) above to its function(s). (2 marks)

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