

Practical

231/3

Marking schemes

1. (a)

Test - tube	OBSERVATIONS	CONCLUSION
A	Blue black/blue /black/bluish black;	Starch present;
B	Blue black/blue /black/bluish black;	Starch present;
C	Blue black/blue /black/bluish black;	Starch present;

6/2 = 3 marks

(b)

Test - tube	OBSERVATIONS	CONCLUSION
A	Blue black/blue /black/ dark blue / bluish black;	Starch present;
B	No colour change /brown/yellow colour / colour of iodine;	Starch present;
C	Blue black/blue /black/bluish black;	Starch present;

6/2 = 3 marks

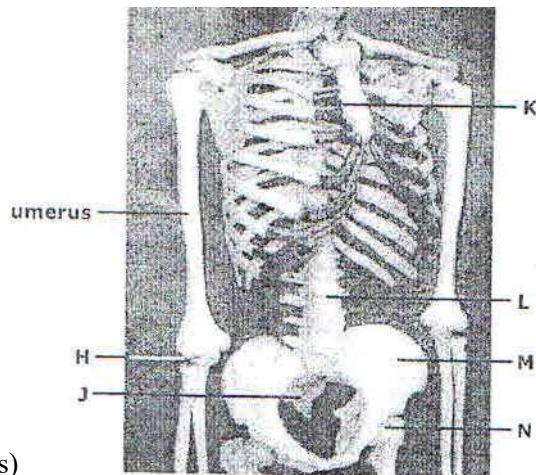
(c) Control experiment

(d) (i) Distase / enzyme /starch digesting enzyme/ ptyalin / saliva enzyme /salivary enzyme; (**1mark**)(ii) Because it is converted / digested / changed starch / can be denatured by boiling / acts within a range of temperature between 35 °C – 38°C / optimum temperature; **only 1 (1 mark)**

(e) Mouth / duodenum / ileum;

NB (f) tied to table (b)(f) B – Starch absent / No colour change /colour of iodine remains because starch has been digested / converted / hydrolysed / broken down into glucose / maltose / simple sugar; (**1mark**)C - Starch present because boiling denatured enzyme /L₂; thus starch not broken down / not digested / not acted upon;

2. The diagram below shows part of a mammalian skeleton, study it and use it to answer the questions that follow.



- (a) (4 marks)
 H – Hinge joint
 J - Coccyx
 K – Cartilage of rib / rib;
 N – Head of femur
- (b) (i) (1 mark)
 Acetabulum;
 ii) (2mark)
 Ilium; ischium; and pubis;

All present to score.

- (c) Any two adaptations of each of the following structures: (2marks)
- (i) Structure M
 Has large surface area for attachment of thigh muscles; has a acetabulum which articulates with head of femur.
- (ii) Structure L
 Large and broad centrum to offer support;
 Broad and long transverse processes; for muscle attachment
- (d) Check on the diagram the labels of the letters in brackets.
- i) The pubis symphysis (P) (1 mark)
 ii) The part where intercostal muscle attach (I) (1mark)
 iii) A joint that can turn through 180° only. H (1mark)
3. (i) - Etiolation; (1mark)
 (ii) - To reach light; (1mark)
 (iii) Positive phototropism; (reject phototropism alone). (1 mark)
 (iv) Auxins move; to the darker side ; more auxins on this side cause faster growth; on this side resulting in curvature of the shoot towards the source of light; (4 marks)

A1	A2
- Green	- Yellow (yellowish is incorrect)
- Big leaves	- Smaller
- Shorter stem/ internodes	- Taller / longer internodes
- Thick stems	- Thin stems
- Firm / sturdy plants	- Weak / feeble plants.

(5 marks)

- (v) Set A₁ - In light
 Set A₂ - In darkness/shaded areas