**s231/3**

**BIOLOGY.**

**PAPER 3**

**JULY/ AUGUST 2007**

**MARKING SCHEME.**

1 a) - Identity Steps.

C Odonate; 1a; 2b;

D water slates; 1b; 3b; 4b; 5a; 6a;

G Diplopoda; 1b; 3b; 4b; 5b; 7a;(9marks)

b) (i) Phylum – Arthropoda; Rej anthropoda arthropods (1mark)

(ii) - Presence of exoskeleton;

- Jointed appendages / limbs / legs;

- Segmented body; Any two (2marks)

2 a) - Bubbles form / Effervescence/ fissing / gas formed;

- Solution K turns cloudy / white precipitate turbid / white suspension;(2marks)

b) - Gas produced is carbon (iv) oxide (CO2;

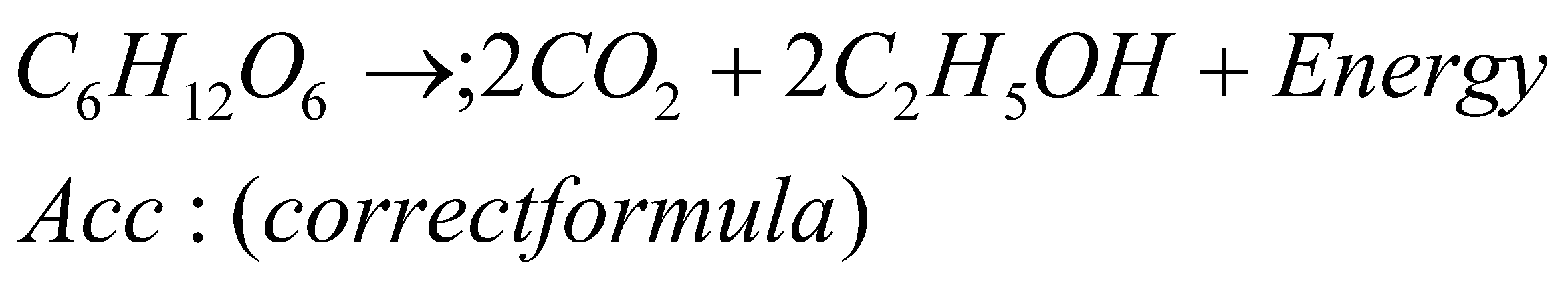
- Solution K is lime water / calcium hydroxide (Ca(OH)2(aq)) (2marks)

c) (i) Fermentation / respiration / anaerobic respiration

Re; aerobic respiration (1mark)

1. Glucose is broken down by (enzyme / yeast); giving out CO2: (Alcohol + Energy

+ Enzyme ) or



(2marks)

d) J - yeast (1mark)

e) (i) It is the optimum temperature range for enzymatic reaction; OWTTE It is the

best / most suitable; for enzyme to work /functions; (2marks)

1. 0C – No reaction / slow reaction / No CO2 produced / less CO2 produced / No

respiration. (1mark)

Reason- At this temperature enzymes are inactivated; (1mark)

Rej No change / No respiration; (1mark)

100- No reaction / reaction stopped / No CO2 produced / No respiration; (1mark)

Rej: No change / No result.

Reasons: Enzymes are denatured / destroyed / cells killed / yeast killed; (1mark)

3 a) - Longitudinal section of P



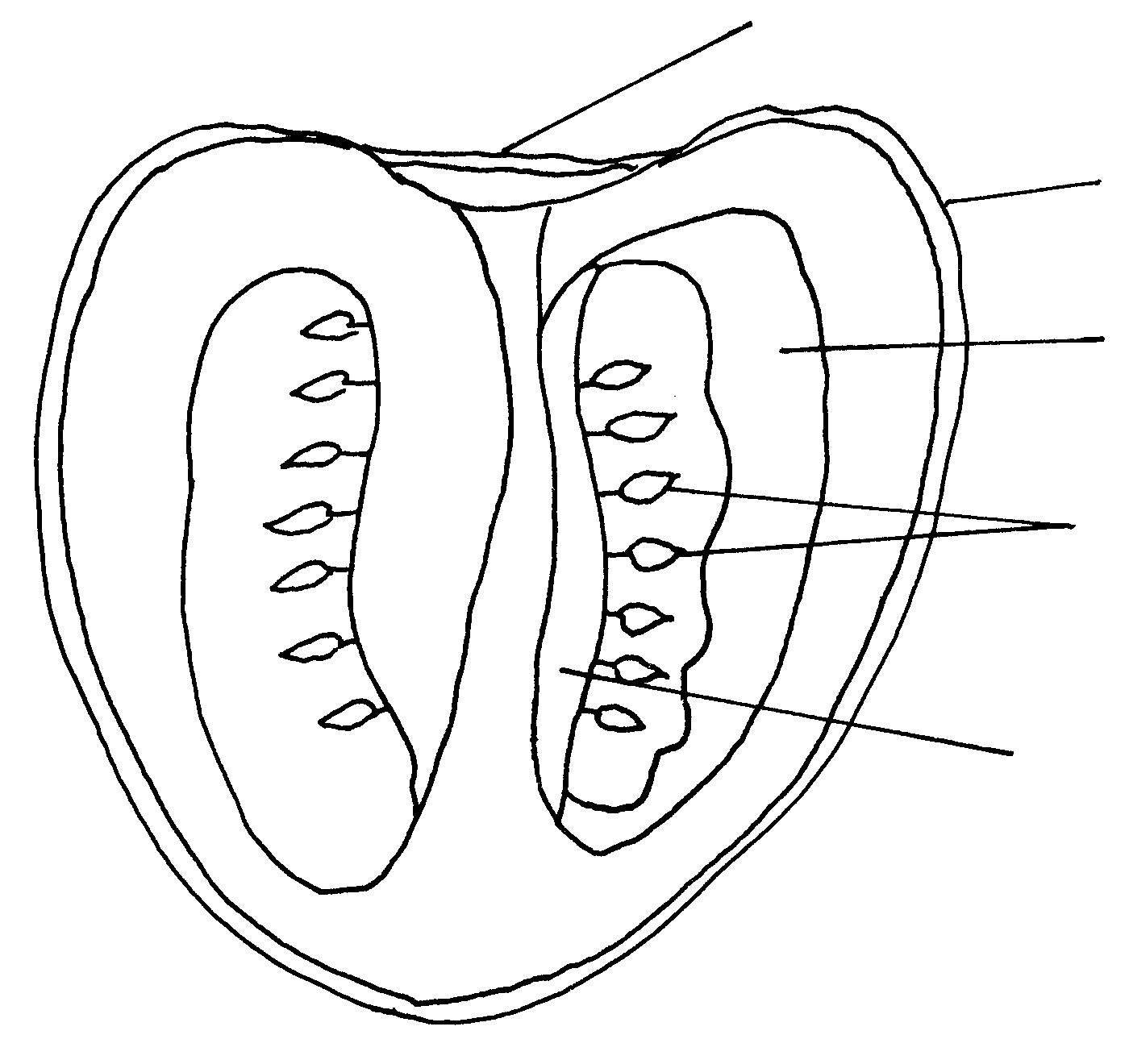


Diagram (1mark)

- To award; consider the following; continuous outline /double lines for epicarp /

accuracy/

Label- scar; Epicarp; mesocarp; endocarp; seeds; placenta; remains of style;

(L= 7/2= 3max.)

b) - Animal / man; (1mark)

c) - Axile; (1mark)

d) (i) Treatment Observation

|  |  |
| --- | --- |
| Add an extract of specimen P to DCPIP drop by drop; (1mark) | DCPIP is decolourised / colour changes from blue to colourless / DCPIP colour disappears;  (1mark) |
| Add iodine solution to small amount of extract of specimen P; (1mark) | The colour of iodine persirts brown colour / yellow; (1mark) |

Total = 4mks

e) (i) Stem crushes / breaks/ slimy / mucous like / fluid oozes out;

(ii) Stores food/ water; for use during dry season; (2mark)