

S/N	QUESTION(S)	SCORE
1.		25
2.		25
	TOTAL	50%

MARKING SCHEME

1. (a) FOOD TEST REPORT

FOOD TESTED	PROCEDURE	OBSERVATION	INFERENCE
Starch (00 ½)	To 2cm ³ of solution K in a test tube, two drops of iodine solution were added then shaken (01)	The mixture turned into brown colour of iodine solution (01)	Starch was absent (00 ½)
Protein (00 ½)	To 2cm ³ of solution K in a test tube, 2cm ³ of sodium hydroxide solution was added, followed by two drops of 1% copper II sulphate solution, then shaken (01)	The blue colour of copper II sulphate solution was retained (01)	Protein was absent (00 ½)
Lipids (fat and oil) (00 ½)	To 2cm ³ of solution K in a test tube, three drops of Sudan III solution were added then shaken vigorously and left to settle for five minutes (01)	The solution form a red homogenous mixture with Sudan III solution (01)	Lipid was absent (00 ½)
Reducing sugar (00 ½)	To 2cm ³ of solution K in a test tube, 2cm ³ of Benedict's solution was added then boiled (01)	The series of colour changed from blue, green, yellow, orange finally to brick red observed (01)	Reducing sugar was present (00 ½)
Non reducing sugar (00 ½)	To 2cm ³ of solution K in a test tube, 1cm ³ of diluted Hydrochloric acid was added then shaken and boiled for two minutes then cooled, followed by addition of 1cm ³ of Sodium hydroxide and 2cm ³ (equal amount) of Benedict's solution	The series of colour change observed from blue, green, yellow, orange finally to brick red (01)	Non reducing sugar was present (00 ½)

	then boiled (01)	15%	
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b) - Reducing sugar

- Non reducing sugar @ 01 = **02marks**

c) – They provide energy to the body

(Sources of energy to the body) = **01 marks**

d) - Protein

- Vitamins

- Lipids (fat oil)

- Starch

- Minerals

- Roughage

- Water

Any 6 @ 001/2 = **03 Marks**

e) – Part in alimentary canal

• Ileum = **01 marks.**

- Enzymes used

• Maltase

• Lactase

• Sucrase @ 01 = **03 marks**

Qn (Total 25%)

2. (a) Classification-Common names

P-monocot leaf

Q-dicot leaf

R-Earthworm

03 marks

(b) (i) Classification of specimens provided:

Specimen/organism	kingdom	Phylum/division	class
P-monocot leaf	Animalia 0.5maks	Arthropoda 0.5 maks	Crustaceae 0.5 maks
Q-dicot leaf	Plantae 0.5 maks	Angiospermophyta 0.5 maks	Dicotyledoneae 0.5 maks
R-Earthworm	Animalia 0.5mark	Annelida 0.5 mark	Oligochaeta 0.5 mark

(ii) Differences between P and Q.

P- monocot leaf	Q-Dicot leaf
i. It is long and narrow 001/2	- It is short and wide 001/2
ii. Has parallel venation 001/2	- Has net/reticulate venation/veins 001/2mark
iii. Has a leaf sheath 001/2	- Has a petiole 001/2 mark

(c) (i)

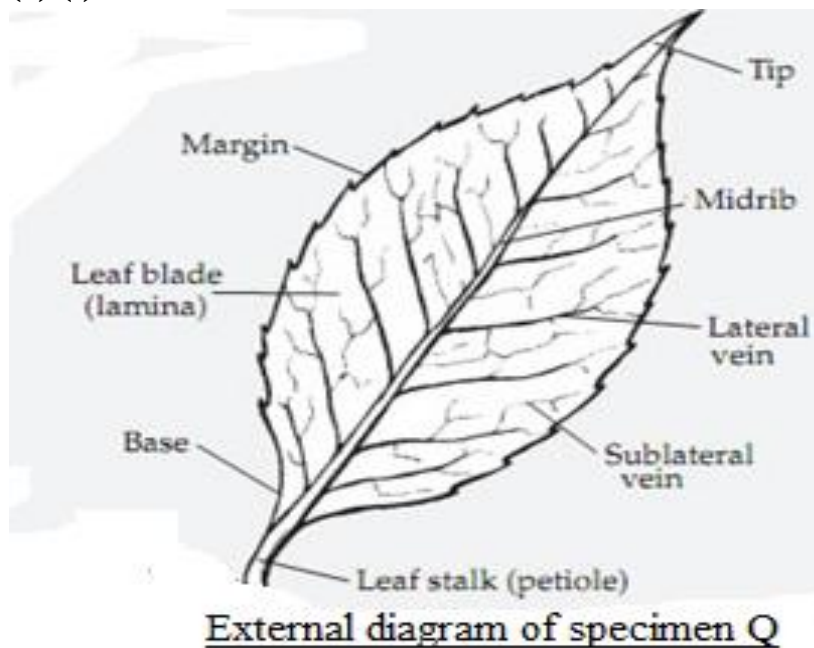


Diagram = 02 marks

Heading = 0.5 mark

Any 4 labels @ 0.5 = 02 marks

Total = 4.5 marks

(c) (ii) Adaptation of leaf

- It is broad and flat to provide surface area for light absorption
- It is thin to reduce distance of diffusion of materials.
- Stomata control passage of gases: O_2 & CO_2
- The cuticle is water-tight
- Has many air spaces for gaseous exchange
- The palisade cells contain the most chloroplast for photosynthesis
- The network of veins ensures adequate supply of water and mineral salt.

Any 4 @ 01 = **04 marks**

(iii) Three process

1. Photosynthesis
2. Gaseous exchange
3. Transpiration @ 1mark = 03 marks

(d) Economic importances of specimen R

- A source of food to birds, fishes
- Adds fertility of the soil.
- On burrowing they aerate the soil
- The tunneling effects in the soil facilitate penetration of plants roots

Any 03@01 Mark = **03 marks**

(General total marks = 50%).