**BIOLOGY**

**PAPER 3**

**MARKING SCHEME**

1. a) i) Fruits (1mark)

 ii) Has two scars (1mark)

b)i)

|  |  |
| --- | --- |
| K1 | K2 |
| Has green epicarp | Yellow/yellow green epicarp |
| Is hard to feel | Soft to feel |
| Produces sap-from epicarp | Has no sap on epicarp |
| No smell | Has an aromatic smell |

 (2marks)

ii)Ethylene/ethene(1mk)

c)Food test

|  |  |  |  |
| --- | --- | --- | --- |
| Food substances | Procedure | Observation | Conclusion |
| Starch | To the food substance add three drops of iodine solution and shake | Colour turns blue black | Starch present |
| Reducing sugar | To the food substance add equal amount of Benedict’s solution and heat to boil | Colour of Benedict’s solution remain | Reducing sugars absent |

(8MKS)

d) Drawing (3mks)

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 2) (a) X - Radius

 -widens/broadens towards the ends.

 Y - Ulna;

 - Has olecranon process, presence of sigmoid notch;

 Z - Humerus;-Has a smooth rounded head/has greater and lesser tuberosities/ has bicipital groove/ has trochlear/ has olecranon fossa;

(b) 

(c) – Has a smooth rounded head to articulate with glenoid cavity of scapula (to form a ball and socket joint);

- Has bicipital groove along which the tendon of biceps muscle passes.

- Has trochlear and condyles for articulating with sigmoid notch of ulna, (forming a hinge joint);

- Has (greater and lesser) tuberosities for muscle attachment;

- Has a long thick shaft to bear the weight of (anterior part) the body;

- It has olecranon fossa into which olecranon process fits when the limb is straightened.

3. a) On the photograph (3mks)

 b) (i) on the photograph (3mks)

 (ii) Tendons : (1mk)

* prevent atrioventricularvalvesfrom overstretching
* preventatrioventricular valves from turning inside out.

Septum (1mk)

* seperates oxygenated blood and deoxygenated blood hence preventing them from mixing

 Thick muscle on the left ventricle (1mk)

* Generate pressure to pumb blood overvalong distance to other parts of the bod.

 c) varicose vein (2mks)

Arteriosclerscis

 Coronary thrombosis

 Hypertension