**BIOLOGY PAPER 1 MOCK 2021**

**MARKING SCHEME**

1. Plants make own food,(autotrophic); while animals take ready-made food,(heterotrophic);

2. Carnivorous-feed on flesh;

Herbivorous- feed on vegetation/plants;

Omnivorous-feed on both flesh and vegetation;

3. -soluble in water;

-sweet tasting;

-crystalline;

4. -Have narrow lumen to maintain high blood pressure;

-Have a thick elastic wall to help blood flow;

-Have no valves so blood flow is not inhibited;

5. Water molecule; is split by light energy; into hydrogen ions and oxygen gas;

6. a) M- decreased in size;

-distilled water is hypotonic; so water molecules mover into salt solution by osmosis;

N- Decreased in size;

-Salt solution is hypertonic; so water molecules moved out of tubing by osmosis;

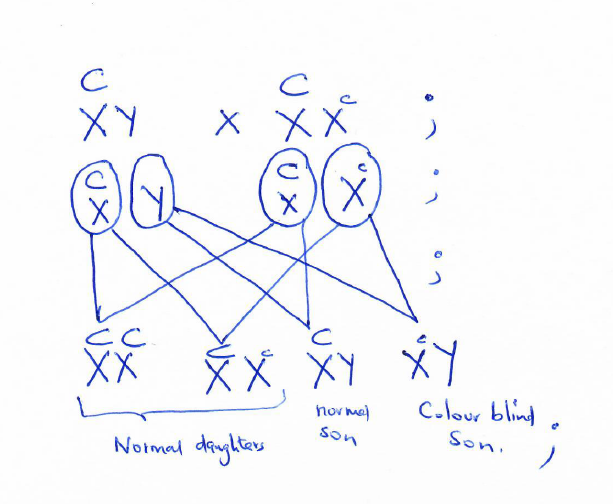
b) cell membrane;

7. Pancreatic amylase;

Pancreatic lipase;

Trypsin;

8.a)



b) All men with the gene are colour blind; women with one gene are normal but carriers;

9.a). A- Circular muscle;

B- Radial muscle;

C -pupil;

b) -pigmented to absorb light controlling amount entering;

-has radial and circular muscles to control size of pupil controlling amount of light entering eye;

- it gives the eye colour;

10.a)Auxin; moves away from point of touch; causing faster growth on other side; resulting in coiling growth;

b) -expose leaves to light for photosynthesis;

-expose flowers to agents of pollination;

-expose fruits and seeds to agents of dispersal;

11.i)T --- A ---- T----T ---- G ---- C ---- C ---- A ---- T;

ii ) U ----A --- U ---- U ---- G ---- C ---- C --- A ---- U;

12. -Roots with no root hairs to reduce absorption;

-Numerous stomata on upper surface of leaves to increase transpiration;

-Large air spaces to increase buoyancy;

-Large leaves to increase surface area exposed for transpiration increase;

13. a)

|  |  |
| --- | --- |
| **Nervous** | **Endocrine** |
| Nerve impulse evoke response | Chemical evoke a response; |
| Transmitted through neurones; | Transmitted through blood; |
| Response is rapid | Response is slow; |
| Effect short lived | Effect is long lasting; |

b) Noradrenaline;

Acetylcholine;

14. - Activate germination enzymes;

- Hydrolyses stored food;

-Transport food to embryo;

- Dilute germination inhibitors;

- Soften the seed coat;

15.a) - Root hair cells;

-Companion cell;

-cells in meristematic tissue;

b) Formation of ribosomes;

16. -Has acrosome containing lytic enzymes that digest egg membrane;

-Has a long tail for swimming to the ovum;

-Has numerous mitochondria to provide energy for swimming to the ovum;

- It's streamlined in shape for minimum resistance to movement;

17. i) A- radius;

B- Humerus;

ii) Attachment of triceps muscle;

Prevent overstretching of the arm;

iii) Glenoid cavity;

iv) Glinding joint;

18. a)- They are myogenic;

-Contract and relax continuously without fatigue;

b) - Digestive system;

-Reproductive system;

-Circulatory system;

19.- Have a carapace;

-Have two pairs of antennae;

-Have five pairs of legs;

20. Pollutants are absorbed by aquatic plants; which are eaten by primary consumers e.g. fish; man accumulates the pollutants by eating fish regularly;

21. Competition;

Predation;

Parasitism;

Saprophytism;

Symbiosis;