

BIOLOGY FORM 3 PAPER 1/231/1

END TERM 3 2026

MARKING SCHEME

1. a. Protein synthesis;
b. production of ribosomes;
cell division/ form cilia and flagella;
2. has chloroplasts that make glucose making it absorb water by osmosis, become turgid and open stomata.;
Bean shaped and occur in pairs leaving stoma between them/ has thin outer walls that bulge outwards when turgid.;
3. Pituitary gland; send impulse to pancrease; that produce insulin ;that stimulate liver cells to convert excess glucose to glycogen; for storage.
4. Bordetella pertussis;
Salmonella typhi;
Vibrio cholera;
NB binomial rules must be followed to score
5. a)Diffusion;
b)Contents of visking tubing remained clear: contents of the beaker turned blue black;
c)Iodine molecules are small and diffused out while starch molecules are large and remained in beaker.;
d)To show that visking tubing is semi permeable;
6. a)Splitting of water molecules by light energy;
b)Chloroplast;
7. a)Cause ovulation;
b)Maintain pregnancy;
c)Cause parturition;
8. Has a carapase;
Has two pairs of antennae;
Has five pairs of legs;
9. One male nucleus fuse with egg cell; to form a diploid zygote.;
The other fuse with the two polar nuclei ;to form a triploid endosperm nucleus;
10. A Region of cell division
B Region of cell ;

has a dense cytoplasm;

has a thin cell wall;

are small in size; ANY TWO
- c) protect the delicate meristem against injury by soil particles;
11. Aerobic produce water while anaerobic does not;

Aerobic produce more energy than anaerobic;
- 12A. gill;

- b. M – Gill filament: RJ filaments filaments/filaments;
- N- Gill raker Rj rackers;

13A. Maize flour turned black;

- Water droplets on upper part of the tube.;
- B Bubbles were seen in solution;
- Solution turned to a white precipitate.;
- c. To show that water is produced in aerobic respiration;
- carbon IV oxide is produced in aerobic respiration;

14Ornithology;

- Entomology;
- Ecology;

15Kingdom Plantae;

- Division Bryophyta;
- b. Anchorage;
- absorption of water and mineral salts;

16Activate germination enzymes;

- Hydrolyse stored food;
- Transport hydrolysed food from endosperm to embryo;

17Primary growth result in increase in length while secondary growth result in girth;

- Growth is increased in size while development is change from simple to complex;

18a) Population is the number of members of the same species in an area at a given time.;

- b) A group of members of different species sharing a habitat;
- c) Constant dry weight of an organism.;

19 A)Maltose;

- Sucrose;
- Lactose;
- b) Disaccharides are sweet while polysaccharides are not;
- Disaccharides are soluble in water while polysaccharides are insoluble;

20 I)Has thin epithelium to reduce diffusion distance

- Has lacteal to absorb fatty acids and glycerol
- Highly vascularized to transport absorbed minerals

21 Fusion of male nucleus and female nucleus to form a zygote.;

22 I)Show that translocation is through phloem;

- ii) Manufactured food unable to pass ringed parts due to lack of phloem resulting to swelling with accumulated food.

23 Mitosis

- Results in two daughter

meiosis

- Results in four daughter cells;

Daughter cells diploid

No crossing over

Occur in somatic cells

Daughter cells haploid;

Crossing over occurs;

Occur in reproductive organs;

24 To increase surface area for diffusion of oxygen;

25 $2\text{mm} = 2 \times 1000 = 2000$ micrometers;

$2000 / 5 = 400$ micrometres;

26 Benedict's solution;

NB Rj benedict's , benedict, Benedict

