**BIOLOGY FORM 3 PAPER 1**

**TERM 3 2023**

**MARKING SCHEME**

1. (a)Autotrophic nutrition; show alternation of generation; Limited movement; Limited excretory products/unspecialized respiratory structures; Localized growth;

(b)having brightly coloured flowers; scented flowers; protandry;protagyny;self sterility; heterostyly;

1. (b)

2( a)Complete metamorphosis - eggs hatch into larvae while in incomplete metamorphosis hatch

into nymphs which resemble the adult;

Complete metamorphosis has four stages; egg, larvae, pupa and adult while in incomplete metamorphosis has three stages; egg, nymph and adult.

(b)To allow for growth of the insect;

3a) Arachnida;

b) Spider/scorpion/tick/mite;

c) Protoctista /protista;

1. Alcohol/ethanol; Carbon (IV) oxide; Energy/Adenosine Triphosphate;
2. - To increase supply of oxygen to the tissues;

- The oxygen is used to oxidize lactic acid (to carbon (IV) oxide, water and energy);

1. Ovary /Anther;
2. (a)This is the study of the interrelationship between organisms and their environment

(b)The maximum population of a species/Total number of organisms that a population habitat/area/region/ecosystem can support or Total number of population of a species a given habitat/area/region/ ecosystem can support without depleting available resources. **Rej.** If different species

1. Acrosome /Lysosome contain enzyme to digest membrane of the ovum;

- Numerous mitochondria to provide energy for movement;

- Long tail for faster movement;

1. a) nuclear pore;

b) Rough endoplasmic reticulum

c) Surface area covered with ribosome’s; for protein synthesis/ channels for transport of protein

1. Androgens

Acc-androgen

1. Carbon (IV) oxide, nitrogenous waste
2. water; mineral ions/salts, vitamins
3. Sacking small insects/small animals

(b)A trap into which (small) animals fall and get trapped; acc. Examples of small animals e.g. insect/reptiles. Arachnids

1. a) Grass → Grasshopper → Lizards

(b) (i) Chicken

(ii) Grass

1. **Fine adjustment knob**

Moves the body tube through smaller distances to bring image/specimen/object into sharper/sharp focus

**Stage**

Platform where specimen (on slide) is placed

1. a) Dry/arid/semi-arid/desert

(b) Succulent/freshly stem; reduced leaves/leaves reduced into thorns/spines. **Acc.** Thick stem for storage of water

1. (a) X

(b) X has fewer stomata; most stomata in leaf X are concentrated on the lower side

1. (a) (i) Ovule; **rej;** ovules

(ii) Axile

(b) Orange or any other citrus fruit; lemon, tangerine, grape, lime, tomato, Sodom apple, Irish potato, egg plant, thorn apple, banana

1. J – sporangium

* Absorption of soluble substances/ digested food
* Secretion of digestive enzymes;
* Anchorage(of mould on substrate); anchorage must be in the right context

1. (a) Place/environment in which (specified)organism lives

(b) A natural unit with abiotic and biotic factors

1. Aids causes

* Sexual intercourse
* Blood transfusion
* Pregnant HIV positive mother to child

1. (a) Figure 1 R:

Figure 2 T: Accept growth

(b) Development of the foetus /zygote/fertilized/ova/egg/embryo

(c) Style

(d) R;P;

(e) X

1. (a) Passage of ova/ site of fertilization

(b) Storage of sperms

(c) Hold the testis/ protect the testis

1. Explosive; water; wind; animal
2. Actual length= drawing length divided by magnification;

4/2=2cm;

1. Leads to growth of the organism;

-Production of new cells;