

231/1 BIOLOGY (2018)
PAPER 1 (*Theory*)
MARKING SCHEME

- [illegible]

18. The passage process of water is osmosis which does not require energy.
19. Study of blood proteins and antigens contained in the plasma shows that organisms that are more phylogenetically related have more immunological reaction that forms more precipitate after antigen- antibody reaction than those not related.

20.a (i) Hypogeal

(ii) Cotyledons left below the ground level

b) A- Protects the plumule as it emerges through the soil.

B- Stores food reserves utilized by the germinating seedling.

21. – Fat emulsification

- Neutralises the acidic chyme and provide basic pH for the enzymes

22. a) Respiration

b) 6600kJ

c) 45kJ

23. a) Transpiration

b) To prevent water evaporation from the beaker.

c) Use of a leafless shoot/ using of a shoot whose leaves are smeared with oil/ jelly

24. i) Prolactin

ii) Dissolves the membranes of the ovum allowing the sperm to penetrate

iii) Leads to variation and hybrid vigour due to mixing of genetic materials.

25. a) To create more space for packaging of haemoglobin.

b) To create more surface area for diffusion of respiratory gases.

26. –Gaseous exchange.

-Absorption of mineral ions.

27. a) Sensory neurone

b) Its bipolar/ cell body located along the axon.

c) B- Controls the activities of the neurone

D- Secret the myelin sheath

28. –Contains salivary amylase which digest starch

- Has mucus that lubricate the food and lining of the mouth

- contains water that dissolves soluble food materials and moisten it.

29. A A × B O



$$= \frac{1}{2}$$

30. -Some fossils were distorted during fossilization which gives wrong impression of the organisms.

- Missing links make it hard to construct evolutionary lineage of organisms.

31. i) To dissolve the diffusing gases

- ii) To reduce the distance through which the diffusing gases pass through.