BURAMU JOINT EVALUATION TEST

231/1 BIOLOGY PAPER 1

MARKING SCHEME NOV 2021

Marking scheme

1.kingdom

2.(i)Irritability

(ii)Reproduction

3.(a)Pores
(b) (i)Synthesis of ribosomes

(ii) Packaging of glycoprotein ;transport of glycoprotein

4.Hydrogen ions ,Energy

5.Penetration of light, and carbon (iv) oxide concentration decrease,with an increase in depth,this lowers the rate of photosynthesis.

6.For faster transportation of dissolved respiratory gases hence maintain a stiff concentration gradient

7.Impearmeable seed coat,immature embryo,presence of growth inhibitors

8.(a)Chitin
(b)cellulose

9.(a)Anaerobic
(b) (i)Increases the contraction and relaxation of the heart muscles
(ii)Increases the expansion and relaxation of the lungs

10.(i)To accommodate more salt and sugars to increase the osmotic pressure of the cell
(ii)To provide energy required for absorption of substance by active transport

11.F-Has parachute like structure
H.-Hooks to attach to the animals
G.-Has lines of weakness(satures)
12.(a)A

(b)The rate of reaction is very low due to the inhibition of the competitive inhibitors as most of the active site of the enzymes are occupied

13.(a)Crustacea
(b)-More than four pair of legs
-Two pairs of antennae

14(a) .B-.Efferent arterial
D-Bowmans capsule
(b)Glucose,urea,vitamins

15.Aldosterone,ADH/Vasopressin

16.- Most of their products are not recycled.

-rate of accumulation of toxic substance is faster

- Waste products are highly toxic hence cant be stored for long

-waste products are formed faster after digestion

17.. (a) Intermittent growth curve;
(b) (i) Growth;
(ii) Ecdysone/ mounting hormone;

18.. (a) – (Weak) carbonic acid ; acc bicarbonate ions/hydrogen carbonates
- Carbamino haemoglobin;

19. Low altitude areas have favourable temperature for working of enzymes; faster metabolic process leading to faster growth; high concentration of Co_2 hence high rate of photosynthesis; High Co_2 concentration in low altitude leads to increased rate of respiration to generate energy for faster growth;

20. (a)Lipid/fat/oil

(b)-Insoluble in water hence difficult to transport
-Requires high amount of oxygen for complete oxidation

21. .(a)C
(b)Isotonic ;no net change in the size of the strip implying no gain or loss of water

22. 15. (a) (i) B (ii) A

(b) B1 – because it can keep its temperature constant despite variations in the environment 1

23. No vacuoles

- Nerval cytoplasm
- Thin cell walls

24. . Lack of bile salts; which emulsify fats;

25. (i)Epigeal
(ii)Hypocotyl
(iii)Dicotyledonae

26.(a)Treponema palladium
(b)Corona virus (all scientific rules of writing scientific names should be folowed)

27.-Dioeciousness
-Heterostly
-Self sterility
-Dichogamy-protogyny
-protandry

28.(a)Self sustaining unit made up of biotic and abiotic factors interacting with each other.
(b)A group of organisms of the same species occupying a given habitat at a specific time.

29.(a)Insulin
(b)Pancrease
(c)Diabetes mellitus

30.(a)Quadrat
(b)Capture-recapture

31.Placenta is fully formed and functional hence takes over production of progesterone which sustains pregnancy

32a).i)C-G-A-T-C-G-T-A;
II)C-G-A-U-C-G-U-A;
b)

DNA	RNA
Double stranded(made of two strands)	Single stranded(made of one strand)
Has thymine organic base	Has Uracil base
Has deoxybose sugar	Has ribose sugar