UMMUL-QURA HIGH SCHOOL

Arowona Bus-Stop, Amuloko, Ibadan, Oyo State

Second Term Examination, 2020/2021 Academic Session.

Subject: Biology ***Class:*** SSS 1 ***Time:*** 2 hours

Instructions: Answer ***all*** questions in Section A and ***three*** in Section B.

PAPER I & II [Objective and Theory]

SECTION A: OBJECTIVE (50 marks).

1. The highest level of organization of life is exhibited in a/an -----.
   A. system
   B. cell
   C. tissue
   D. organ
2. Which of the following organelles is n9t found in plant cell?
   A. Ribosome
   B. Centriole
   C. Mitochondria
   D. Cell membrane
3. Oxygen moves into the cytoplasm of the root hair by ----.
   A. osmosis
   B. diffusion
   C. transportation
   D. photosynthesis
4. Which of the following substances would be most accessible for use in glycolysis when all glucose and glycogen had been depleted?
   A. Cellulose
   B. Lipids
   C. Protein
   D. Starch
5. The final products of anaerobic respiration in plants is/are ----.
   A. Lactic acid only
   B. Ethernol and carbon dioxide
   C. Carbon dioxide and water
   D. Water only
6. A mango plant grows upward with the aid of -----.
   A. auxin
   B. gibberellin
   C. ethylene
   D. cytokinin
7. Which of the following mineral salts is a trace element?
   A. Zinc
   B. Nitrogen
   C. Hydrogen
   D. Potassium
8. The element common to protein, carbohydrates and lipid is ----.
   A. hydrogen
   B. sulphur
   C. phosphorus
   D. nitrogen
9. The study of life which include both plants and animals is -----.
   A. ecology
   B. biology
   C. entomology
   D. anatomy

10. A collection of cells that are similar in structure and perform similar functions is ----.
    A. organ
    B. system
    C. tissue
    D. cell
11. The loco. Prove organ used by amoeba is -----.
    A. cilia
    B. pseudopodia
    C. flagella
    D. tentacle
12. The science of organism's classification is known as ----.
    A. taxonomy
    B. binomial
    C. pseudopodia
    D. nomenclature
13. A characteristic of living things that deal with the removal of waste products of metabolism from the body is -----.
    A. respiration
    B. irritability
    C. excretion
    D. reproduction
14. The branch of biology that deals with the study of animals is referred to as ----.
    A. botany
    B. zoology
    C. genetics
    D. ecology
15. A feature common to both plants and animals are -----.
    A. presence of chlorophyll
    B. growth
    C. both are autotrophic
    D. both stores glucose as starch
16. The following are reptiles except ----.
    A. snakes
    B. lizards
    C. toads
    D. crocodiles
17. The following belong to class of insects except -----.
    A. housefly
    B. butterfly
    C. spider
    D. grasshopper
18. That's standard wat/system used by biologists in naming living organisms is referred to as ----.
    A. grouping
    B. classification
    C. binomial system of nomenclature
    D. taxonomy
19. Green plants manufacture their food and by synthesizing organic material from ---- and ----.
    A. oxygen and water
    B. carbon dioxide and water
    C. light and chlorophyll
    D. carbon dioxide and water
20. Plants that produces their own food are known as -----.
    A. autotrophs
    B. heterotrophs
    C. plant syntheses
    D. all of the above
21. The symbol for copper element is ----.
    A. C
    B. Cu

C. Ca
D. Ag

22. Muscle fatigue in the body of an athlete is due to ----.
    A. low PH
    B. high oxygen contents
    C. accumulation of lactic acid
    D. accumulation of carbonic acid
23. The products of tissues respiration are ----.
    A. glucose, oxygen and water
    B. oxygen, water and energy
    C. glucose, carbon dioxide and energy
    D. water, carbon dioxide and energy
24. The major mineral present in the shell of molluscs is ----.
    A. copper
    B. sodium
    C. iron
    D. calcium
25. Which of the following forms of energy is utilized during photosynthesis?
    A. Potential
    B. Kinetic
    C. Solar
    D. Chemical
26. Which of the following statements is ***not*** correct about hormones?
    A. Their response is voluntary
    B. That are chemical messengers in animals
    C. They may affect more than one target organ
    D. They are transported through blood to target organ
27. Which if the following is ***not*** an excretory product of animals?
    A. Carbon dioxide
    B. Urea
    C. Sweat
    D. Oxygen
28. The scientist who introduced binomial nomenclature in the classification was ----.
    A. Charles Darwin
    B. Carolus Linnacus
    C. Louis Pasteur
    D. John Ryan
29. Active transport differs from diffusion in that active transport ----.
    A. is very fast process
    B. allows the movement of substances against concentration gradient
    C. take place in both light and dark reaction of photosynthesis
    D. occurs in bot plant and animal tissues
30. Which of the following does ***not*** occur during photosynthesis?
    A. Energy from sun is absorbed
    B. Carbon dioxide is evolved
    C. Glucose synthesized
    D. Oxygen is given off
31. Auxins are produced in the ----.
    A. petiole of leaves
    B. parenchyma of roots and shoots
    C. epidemic of root and shoots

D. epidemic of root and leaves

32. The loss of water through the aerial parts of the plant to the atmosphere is called ----.
    A. respiration
    B. gultation
    C. osmoregulation
    D. transpiration
33. Which of the following methods is used in food preservation for a long period is -----?
    A. salting and drying the food
    B. keeping the food in a store
    C. exposing the food to fresh air
    D. adding oil to the food
34. Which of the following will ***not*** release carbon dioxide to the atmosphere?
    A. Breathing
    B. Photosynthesis
    C. Respiration
    D. Burning
35. The scientist who discovered the honey-comb structure of the cell was ----.
    A. Robert Hooke
    B. Felix Dujardin
    C. Mathias Schleidin
    D. Theodore Schwann
36. Primary growth in plants is brought about by the activities of the -----.
    A. endodermis
    B. meristem
    C. epidermis
    D. mesophyll
37. In the binomial system of naming organisms, the second name is the ---- name.
    A. Scientific
    B. Common
    C. Generic
    D. Specific
38. The living materials of the cell consist of -----.
    A. nucleus and cytoplasm
    B. cytoplasm and cell membrane
    C. cytoplasm and vacuole
    D. nucleus and cell membrane
39. Which of the following food substance gives the least amount of calories ---?
    A. rice
    B. ground nut
    C. cabbage
    D. egg yolk
40. Plant hormones includes the following ***except*** ----.
    A. insulin
    B. auxin
    C. cytokinin
    D. gibberellin
41. The part of the young root that pushes it's way through that soil is the ----.
    A. root hair
    B. tap root
    C. root cap
    D. lateral root
42. Filament of spirogyra placed in a beaker of tap water in a dark cupboard died because -----.
    A. the filament could not photosynthesis
    B. conjugation could not take place

C. the temperature was too high
D. the plant was overflooded

43. A group of closely related organisms capable of interbreeding to produce fertile offspring are known as members of ----.
    A. kingdom
    B. class
    C. family
    D. species
44. Which of the following organisms is an endoparasite?
    A. Mice
    B. Mosquito
    C. Ascaris
    D. Dodder
45. DNA in eukaryotic cells is contained in the -----.
    A. central vacuole
    B. nucleus
    C. lysosome
    D. golgi body
46. An organism that operates at the cellular level of organization, carries out its physiological activities by using its -----.
    A. cell membrane
    B. organelles
    C. small size
    D. cytoplasm
47. The organelles which eliminates water from the body of a protozoan is the -----.
    A. Plasma membrane
    B. Contractile vacuole
    C. Nucleus
    D. Cell wall
48. A typical plant cell is mainly distinguished from an animal cell by the possession of -----.
    A. chloroplast and nucleus
    B. cell wall and cytoplasm
    C. chloroplast and cell wall
    D. cell wall and mitochondria
49. Which of the following methods does ***not*** make water fit for drinking?
    A. Addition of chlorine
    B. Addition of alum
    C. Boiling
    D. Distillation
50. The purpose of protein in the diet of a mammal is to ----.
    A. Promote growth and breoair cells
    B. Breakdown molecules
    C. Regulate the flow of chyme
    D. Serve as co-factors for the enzymes

SECTION B: THEORY (30 marks).

Instructions: Answer ***three*** questions in ***ALL***.

1. (ai) What is Biology? 2 marks

   (aii) Write ***six*** differences between plants and animals. 3 marks

   (bi) State ***three*** reasons why we study biology. $2\frac{1}{2}$ marks

   (bii) List ***three*** importance of biology. $2\frac{1}{2}$ marks

2. (a) Briefly explain glycolysis. 3 marks

   (bi) State ***three*** importance of mitosis. $1\frac{1}{2}$ marks

   (bii) List and explain the basis of growth. $3\frac{1}{2}$ marks

   (2c) Define growth. 2 marks

3. (a) Explain the following terms;
   i. primary growth
   ii. secondary growth
   iii. isometric growth
   iv. limited growth
   v. nutrition. 5 marks

   (bi) Draw a typical sigmoid curve. arks 2 marks

   (bii) Define sensitivity. $1\frac{1}{2}$ marks

   (biii) State the ***three*** basic types of sensitivity in living organisms. $1.\frac{1}{2}$ marks

4. (a) With the aid of graph, explain the term unlimited growth. 3 marks

   (b) Define and explain the following with examples;
   i. Micro elements
   ii. Macro elements. 2 marks

   (ci) What is excretion? 2 marks

   (cii) State and explain types of metabolism with appropriate example for each. 3 marks