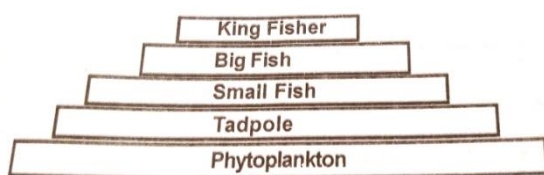


BIOLOGY SS1

1. A population is defined as the collection of;
 - A. Similar organisms that are found in the same habitat
 - B. Similar organisms that breed in the same habitat
 - C. Similar organisms that interbreed in the same habitat
 - D. Similar organisms that eat the same feed.
 - E. None of the above
2. . Which of the following groups is completely abiotic?
 - A. Soil, water, bacteria, salinity
 - B. Wind, temperature, light, humidity
 - C. Turbidity, salinity, plankton, diatoms
 - D. Wind, altitude, pH, soil, insect
 - E. Wind, altitude, pH, rain, insects
3. Which of the following ecological factors are common to both terrestrial and aquatic habitat?
 - A. Rainfall, temperature, light and wind
 - B. Salinity, rainfall, light, temperature
 - C. Tides, winds, rainfall and altitude
 - D. Wind, pH, light and temperature
4. Epiphytes are usually found in
 - a. Grassland
 - b. Desert
 - c. Forest
 - d. Marsh land
 - e. Estuaries
5. . The highest amount of rainfall is recorded in the?
 - a. Rainforest
 - b. Montane
 - c. Savanna
 - d. Desert
 - e. Temperate regions

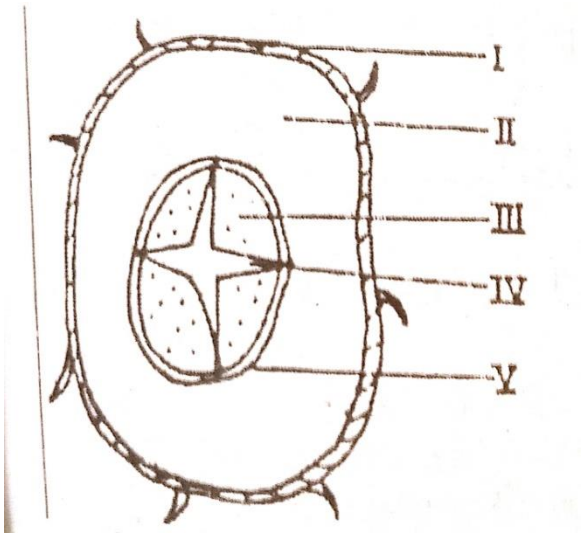
Use the diagram below to answer questions 6-8



6. The diagram above illustrates?
 - a. The size of various organisms
 - b. The types of organisms in a habitat
 - c. The flow of energy in a habitat
 - d. The hierarchy of organisms in a habitat
 - e. The food relationship
7. Which of these organisms occupies the 3rd trophic level?

- a. King fisher
 - b. Small fish
 - c. Phyto-planktons
 - d. Big fish
 - e. Tadpole
8. Which of these organisms is a primary consumer?
- a. Tadpole
 - b. Phytoplankton
 - c. King fisher
 - d. Small fish
 - e. Big fish
9. Which of the following is not an abiotic factor?
- a. Air
 - b. Pest
 - c. Light
 - d. Water
 - e. Minerals
10. One of these is not a plant supporting tissue;
- a. Bark
 - b. Collenchyma
 - c. Parenchyma
 - d. Phloem
 - e. Sclerenchyma.
11. The first law of thermodynamics states that?
- a. Energy is gained but not lost
 - b. There is no net gain or loss of energy
 - c. Energy is converted only once
 - d. The conversion of energy is specific and non directional
 - e. Energy is loss through enthalpy.

Use the diagram below to answer questions 13-16



12. The above diagram represents a?
 - a. Longitudinal section of a dicot stem
 - b. Longitudinal section of a monocot root
 - c. Transverse section of a dicot stem
 - d. Cross-section of a dicot root
 - e. Longitudinal section of a monocot leaf
13. The part labelled II in the diagram is the?
 - a. Epidermis
 - b. Cortex
 - c. Phloem
 - d. Xylem
 - e. Cuticle
14. The part labelled IV in the diagram is the?
 - a. Phloem
 - b. Pericycle
 - c. Cortex
 - d. Xylem
 - e. Epidermis
15. Which of the following factors does not affect population growth?
 - a. Food supply
 - b. Games and sport
 - c. Reproduction
 - d. Migration
 - e. Mortality
16. Which of the following is not an outcome of inadequate food supply to a population?
 - a. Migration
 - b. Competition
 - c. Population growth
 - d. Cannibalism

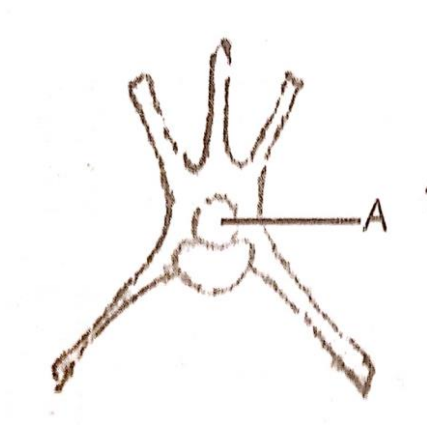
e. Overcrowding

17. Another name for vascular plant is?

- a. Angiosperm
- b. Gymnosperm
- c. Pteridophyte
- d. Tracheophyte
- e. Thallophyte

18. . Amoeba moves by means of?

- a. Cilia
- b. Flagella
- c. Pseudopodia
- d. Seta
- e. Ribosome



Use the diagram below to answer question 19 and 27

19. What type of vertebra is represented in the diagram?

- a. Atlas
- b. Axis
- c. Cervical vertebra
- d. Sacrum
- e. Lumbar vertebra

20. The structure labeled A represents?

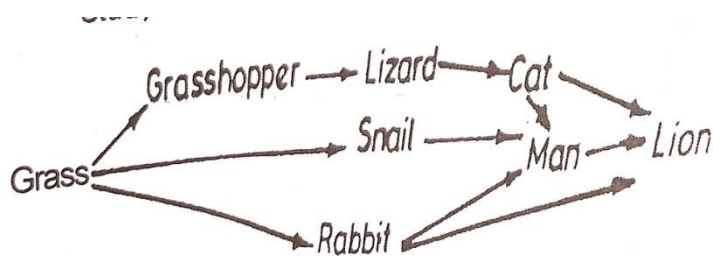
- A. Transverse process
- B. Neural spine
- C. Neural canal
- D. Centrum
- E. Metapophysis

21. When two solutions have equal concentration, they are said to be -----?

- a. Isometric solution
- b. Hypertonic
- c. hypotonic
- d. isotonic
- e. isobarism.

22. When energy is transformed from one form to another, it cannot be hundred percent efficient, this assertion represents?
- a. 1st law of thermodynamics
 - b. 2nd law of thermodynamics
 - c. Law of conservation of matter
 - d. Law of motion
 - e. Law of gravitation
23. The radiant energy absorbed by plants is transformed into?
- a. Mechanical energy
 - b. Nuclear energy
 - c. Chemical Energy
 - d. Physical energy
 - e. Thermal energy
24. Which of the following is present in both a plant and animal cell?
- a. Cell membrane
 - b. Cell wall
 - c. Chloroplast
 - d. Cytoplasm
 - e. Eyespot
25. One of the following is not a condition necessary for photosynthesis?
- a. catalyst
 - b. Light energy
 - c. Chlorophyll
 - d. Water
 - e. Enzyme
26. One of the following is not a sugar
- a. Starch
 - b. Monosaccharide
 - c. Sucrose
 - d. Maltose
 - e. Fructose
27. Fats stored under the skin serve as heat.....which reduces heat loss from the skin?
- a. Protector
 - b. Insulator
 - c. Inhibitor
 - d. Healthy diet
 - e. conductors

28. Organisms that live on, within or among trees are termed?
- Over the ground dwellers
 - Ground dwellers
 - Arboreal dwellers
 - Underground dwellers
 - Surface dwellers
29.waters ,are water habitats which contain a mixture of fresh water and saltwater
- Brackish
 - Blackish
 - Smallish
 - Coastal
 - East line
30. The following are sources of salt-free water except?
- Estuaries
 - Ponds
 - Streams
 - Spring
 - Wells



Use the diagram above to answer question 31 and 32

31. Tertiary consumers within the web are?
- Cat and lion only
 - Man and lion only
 - Man and cat only
 - Man ,cat and lion
 - Snail and cat
32. What would be the effect of taking the lion out of the web?
- The number of organisms at each trophic level will increase
 - Man will occupy the apex of the web
 - There will be more rabbits in the web
 - The energy reaching the remaining trophic levels will increase
 - None of the above
33. The factors which influence living organisms in their habitat and control their survival and distribution are called?

- a. Habitat factors
 - b. Edaphic Factors
 - c. Topographic Factors
 - d. climatic factors
 - e. Limiting factors
34. The height of a place above sea-level is described as its
- a. Latitude
 - b. Longitude
 - c. Magnitude
 - d. Altitude
 - e. Depth
35. The instrument used in measuring rainfall is the?
- a. Rainmeter
 - b. Rain guage
 - c. Hydrometer
 - d. Aquameter
 - e. Pooter
36. Death plant and animal matter at various stages of decay in the soil constitute soil
- a. Organic matter
 - b. Microbes
 - c. Decomposers
 - d. Biomass
 - e. Profile
37. The speed of the wind is measured using?
- a. Wind vane
 - b. Anemometer
 - c. Hygrometer
 - d. Windbreaks
 - e. Wind meter
38. Which of these serves the function of support and water conduction?
- a. Parenchyma
 - b. Collenchyma
 - c. Sclerenchyma
 - d. Xylem
 - e. Pith
39. A specialized mechanism (contractile vacuole) just for removal of excess water is found in?
- a. Planaria
 - b. Earthworm

- c. Insects
 - d. Amoeba
 - e. Mammals
40. Muscles are attached to bones by?
- a. Synovial membrane
 - b. Ligaments
 - c. Tendons
 - d. Cartilage
 - e. leucocyte
41. An organism which lives on the remains of a dead plant is?
- a. An endoparasite
 - b. A saprophyte
 - c. A symbiont
 - d. An ectoparasite
 - e. A neophyte
42. Which of the following is a direct product of photosynthesis?
- a. Glucose
 - b. Hydrogen
 - c. Starch
 - d. Protein
 - e. Glucagon
43. A place where an organism is best suited in a habitat to live and thrive successfully is called?
- a. A micro-system
 - b. Biosphere
 - c. A niche
 - d. Ecosystem
 - e. Macro system
44. The locomotory organelles found in euglena is?
- a. Pseudopodia
 - b. Nephridia
 - c. Cilia
 - d. Flagella
 - e. Mycellum
45. The appendicular skeleton is made up of the?
- a. Limbs
 - b. Skull and limbs
 - c. Girdles and limbs
 - d. Ulna and radius

- e. Radii
46. Complex food substances are?
- a. stored in the lining of the stomach
 - b. Excreted by the organism
 - c. Broken down by enzymes
 - d. Diffused into the blood stream
 - e. Are not digestible
47. The skeleton provides all the following except?
- a. Body shape
 - b. Size
 - c. Protection
 - d. Production of cells
 - e. Aid in breathing
48. Secondary thickening in dicotyledonous stem is controlled by
- a. Xylem
 - b. Phloem
 - c. Cambium
 - d. Pericycle
 - e. Cortex
49. What is the primary function of joints in the skeletal system?
- a) Producing blood cells
 - b) Connecting muscles
 - c) Allowing movement
 - d) Storing calcium
 - e) Driving
50. An exoskeleton is commonly found in:
- a) Humans
 - b) Earthworms
 - c) Insects
 - d) Fish

ESSAY (Answer any 4 Questions)

1.

- A. Draw a food chain for terrestrial habitat.
- B. Discuss the tropical rainforest
- C. Mention the instruments used in measuring:
 - I. Turbidity
 - II. Relative Humidity
 - III. Temperature

2

- A. State the first law of thermodynamics
- B. Draw the map of Nigeria showing the vegetation belts
- C. Mention the 3 types of terrestrial habitats

3.

- A. Define Ecology
- B. Draw and label fully the diagram of a ball and socket joint
- C. Mention 3 functions of supporting tissues in plants

4.

- A. Briefly explain the three types of skeleton
- B. Draw the diagram of the pentadactyl limb plan and label for both upper and lower arm on both sides
- C. Mention the 3 types of aquatic habitats

5.

- A. Briefly explain 3 functions of the skeleton
- B. Draw the diagram of a well labeled food web
- C. Mention 3 types of joints

6.

- A. Define biosphere and atmosphere
- B. Draw the diagram of the pyramid of numbers indicating trophic levels
- C. Write 4 differences between mitosis and meiosis in a tabular form