

A black and white photograph of several petri dishes containing bacterial cultures, arranged in a grid-like pattern.

BIOLOGY

FOR
Senior Secondary School
1

A black and white photograph of a ball-and-stick molecular model, showing atoms as spheres and bonds as sticks, set against a blurred background of laboratory glassware.

Practice Questions and Answers

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Biology Exam Questions and Answers Pack

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QUESTIONS

TOPIC: ANIMAL NUTRITION

DIRECTION: Choose the correct answer from the lettered options.

1. Animal nutrition involves the study of _____.
 - A. animal husbandry
 - B. farm equipment and farm produce
 - C. food substances and digestive enzymes
 - D. the teeth and chewing and biting patterns

2. The term ecosystem refers to _____.
 - A. different groups of green plants in a habitat
 - B. the relationship between animals and plants in a given environment
 - C. living organisms interacting with the physical environment
 - D. members of particular plants and animals living in a habitat

3. The most effective method of dealing with non-biodegradable pollutants is by _____.
 - A. dumping
 - B. recycling
 - C. incineration
 - D. burying

- 4 Which of the following is not a factor responsible for population sizes?
 - A. Nativity
 - B. Feeding
 - C. Immigration
 - D. Mortality

5. Which of these organisms is both holozoic and autotrophic?

- A. Spirogyra
- B. Paramecium
- C. Euglena
- D. Amoeba

6. Euglena may be classified as a plant because it ____.

- A. has chloroplasts
- B. has a gullet
- C. lives in a pond
- D. possesses a flagellum

7. The following agencies are responsible for conservation in Nigeria except _____.

- A. Forestry Departments
- B. Nigerian Conservation Society
- C. Games Reserve Authority
- D. Red Cross Society

8. Which of the following effects would desertification have on the ecological balance represented in the diagram?



- A. $10 \times 10^4 \text{ K cal}$ obtained from the sun would decrease.
- B. $10 \times 10^4 \text{ K cal}$ obtained from the sun would increase.

- C. 6×10^4 K cal obtained at level I would decrease.
- D. 3.5×10^4 K cal obtained at level II would increase.

9. Sucrose is found in _____.

- A. coconut water
- B. sugar cane
- C. malted beans
- D. beef

10. One of the ecological conditions which favors the spread of malaria is _____.

- A. proper disposal of decaying organic matter
- B. cleaning bushes around houses
- C. presence of water weeds
- D. presence of stagnant water

11. A habitat with low rainfall, very low humidity, and exposed soil with little plant cover, few trees and shrubs is likely to be _____.

- A. a rain forest
- B. a mangrove forest
- C. a desert
- D. a swamp

12. Which of the following is not correct about a living cell?

- A. The basic unit of a living organism is the cell.
- B. All living organisms are either single or groups of cell(s).
- C. All the cells in an organism are the same.
- D. There is no life apart from the life in cells.

13. Which of the following is an organelle directly involved in cell division in animals?

- A. Cytoplasm
- B. Centrioles
- C. Mitochondria
- D. Cell wall

Look at the diagram carefully and answer the question correctly.

14. What is the name of the part labelled 1?



- A. Eye
- B. Nostrils
- C. Gills
- D. Mouth

15. The _____ is vestigial in humans but functional in other mammals.

- A. liver
- B. appendix
- C. rectum
- D. stomach

16. Which of these plant kingdoms have roots, stems or leaves?

- A. Spermatophyte
- B. Pteridophyta
- C. Schizophyta
- D. Thallophytic

17. _____ are also classified as seed-bearing flowering plants.

- A. Spermatophytes
- B. Schizophyta
- C. Thallophyta
- D. Bryophyta

18. The following are examples of schizophyta except _____.

- A. bacteria
- B. viruses
- C. nostoc
- D. lichens

19. During combustion, carbon is oxidized to _____.

- A. carbon (iv) oxide
- B. trioxocarbonate iv
- C. oxygen
- D. nitrogen

20. Possession of strong adhesives is a feature of animals living in _____.

- A. sandy beaches
- B. rocky shores
- C. benthic zones
- D. deserts

21. _____ is an organic catalyst that promotes or speeds up chemical changes in living cells.

- A. A promoter
- B. A chemical

- C. An enzyme
- D. A parasite

22. Lack of ____ in the body causes pellagra.

- A. iodine
- B. vitamin C
- C. protein
- D. niacin

23. The following are various modes of nutrition in heterotrophic organisms except _____ mode of nutrition.

- A. parasitic
- B. halophytic
- C. saprophytic
- D. symbiotic

24. What is condensation?

- A. It is the combustion of molecules.
- B. It is the change of the physical state of matter from gaseous phase into liquid phase.
- C. It is the condensation of molecules from scanty form to a more confined form.
- D. It is the use of sieve to filter rough substances away from smooth substances.

25. All kinds of food eaten by animals can be divided into _____ groups of food substances.

- A. eight
- B. ten
- C. two
- D. six

26. _____ consist of indigestible fibrous materials derived from vegetables, fruits and proteins.

- A. Roughages
- B. Roughts
- C. Roughton
- D. Rough

27. Which of the following is not a test for protein?

- A. Million's test
- B. Biuret's test
- C. Benedict's test
- D. Xanthoproteic test

28. _____ is a mode of nutrition where certain bacteria are able to manufacture their food as they synthesise organic compounds from simple inorganic materials.

- A. Endoparasitic mode
- B. Ectoparasitic mode
- C. Chemosynthetic mode
- D. Parasitic mode

29. The product of the action of erepsin on peptone is _____.

- A. maltose
- B. glycerol
- C. amino acid
- D. glucose

30. How do you test for carbohydrate?

- A. Mix equal amount of glucose and Fehling's solution in a test tube and place it in a boiling water bath.

B. Mix equal amount of sugar and Benedict's solution in a test tube and pour it in a boiling water.

C. Mix sucrose and Fehling's solution and put it in the fridge.

D. Mix carbohydrates and water and put it in fridge.

31. Foods that largely contain _____ are energy giving foods.

A. carbohydrates

B. water

C. protein

D. mineral salts

32. It is important to eat balanced diet in order to _____.

A. stay healthy

B. sleep well

C. work hard

D. grow tall

33. What is a balanced diet?

A. It is a diet that contains the correct proportions of proteins and carbohydrates.

B. It is a diet that contains the right amount of all six classes of food substances.

C. It is a diet that contains mineral salts, proteins, carbohydrates and fibres in their appropriate amount.

D. They contain majorly carbohydrate food substance.

34. Which of the following is not a characteristic of enzymes?

A. They are soluble.

B. They are protein.

C. They are lipids.

D. They are specific.

35. Which of the following is not a B vitamin?

- A. Niacin
- B. Riboflavin
- C. Thiamine
- D. Calciferol

36. Which of the following is not an example of a monosaccharide?

- A. Glucose
- B. Lactose
- C. Fructose
- D. Ribose

37. Starch can be gotten from all of the following except _____.

- A. potato
- B. tapioca
- C. millet
- D. peas

38. Omnivorous animals feed on both _____ and _____.

- A. fresh, live animals
- B. plants, leaves
- C. plants, animals
- D. milk, animals

39. What are the components of carbohydrate?

- A. Protein, carbon and oxygen
- B. Carbon, hydrogen and oxygen

- C. Minerals, salt and fibre
- D. Carbondioxide, oxygen and vitamins

40. Mucus is composed of _____.

- A. protein, carbohydrate and sulphur
- B. salt and fibre
- C. fibre and carbohydrate
- D. muchin, cells, water and inorganic salts

41. Monosaccharide's, disaccharides and polysaccharides are classifications of _____.

- A. mineral salts
- B. protein
- C. fats and oils
- D. carbohydrates

42. Water forms about _____ of man's body.

- A. 75%
- B. 85%
- C. 50%
- D. 65%

43. Sucrose is found in _____.

- A. coconut water
- B. sugar cane
- C. malted beans
- D. beef

44. The condensation of two simple sugar molecules form a _____.

- A. complex sugar
- B. complicated sugar
- C. combusted sugar
- D. contaminated sugar

45. Ptyalin is an enzyme that acts on _____.

- A. protein
- B. fats and oils
- C. cooked starch
- D. peptones

46. What colour will a boiled starch solution turn into when a few drops of iodine solution is added to it?

- A. Red
- B. Black pure
- C. Blue-black
- D. Reddish

47. How do you test for oil and fat?

- A. By dropping oil on a spot on a filter paper; the drop becomes more translucent.
- B. By mixing oil in water and allowing it to settle down; subsequently draining off the fluid that settles at the bottom.
- C. By spraying oil on the ground; observing whether it attracts flies or ants.
- D. By eating fat; calculating to see how long it will take it to digest.

48. The animals which prepare their food on their own are called _____.

- A. heterotrophs

- B. autotrophs
- C. manual
- D. heterophy

49. Which of the following does not take part in the formation of teeth and bone?

- A. Calcium
- B. Potassium
- C. Phosphorus
- D. Fluorine

50. Which of the following nutrients is known as welfare nutrient?

- A. Mineral salts and vitamins
- B. Proteins and fats
- C. Fibre and fats
- D. Salts and fibre

51. Excess carbohydrate in human is converted to _____.

- A. sugar
- B. protein
- C. fat
- D. vitamin

TOPIC: BASIC ECOLOGICAL CONCEPTS

DIRECTION: Choose the correct answer from the lettered options.

1. Possession of strong adhesives is a feature of animals living in _____.

- A. sandy beaches
- B. rocky shores
- C. benthic zones
- D. deserts

2. Water loss is most rapid in _____ soil.

- A. sandy
- B. clayey
- C. sandy-loam
- D. loamy

3. An acidic soil can be improved upon by _____.

- A. sedimentation
- B. leaching
- C. flocculation
- D. watering

4. Which of the following resources is non-renewable?

- A. Forest
- B. Wildlife
- C. Mineral deposits
- D. Water

5. The similarity among organisms belonging to the same group will be least within each _____.

- A. family
- B. order
- C. kingdom
- D. species

6. An environment could be defined as the _____.

- A. solid crust of the earth
- B. part of the earth in which life exist
- C. surrounding of an organism
- D. First and lowest layer closest to the soil

7. Energy exists in _____ major forms.

- A. 3
- B. 2
- C. 4
- D. 5

8. A bacteria cell differs from eukaryotic cell because they have _____.

- A. cell wall
- B. nuclear membrane
- C. nuclear material
- D. cell membrane

9. Desert plants are usually called _____.

- A. hydrophytes
- B. mesophytes

- C. xerophytes
- D. saprophytes

10. Transpiration in plants results in the ____.

- A. closure of the stomata at night
- B. continuous streaming of water through the plant
- C. pale, green colouration of portions of the leaves
- D. opening of stoma

11. What is ecology?

- A. It is the study of plants and animals in relation to their environment.
- B. It is the study of the human digestive system in relation to the environment.
- C. It is the study of plants.
- D. It is the study of plants and animal harvesting.

12. The abiotic factor which determines the depth to which light penetrates into a pond is ____.

- A. current
- B. turbidity
- C. wind
- D. salinity

13. Which of the following effects would desertification have on the ecological balance represented in the diagram?



- A. 10×10^4 K cal obtained from the sun would decrease.
- B. 10×10^4 K cal obtained from the sun would increase.
- C. 6×10^4 K Cal obtained at level I would decrease.
- D. 3.5×10^4 K Cal obtained at level II would increase.

14. A secchi disc is used in the determination of ____.

- A. rainfall
- B. tides
- C. waves
- D. turbidity

15. Due to food shortage, the following are factors that cause decrease in the population size except _____.

- A. natality
- B. competition
- C. emigration
- D. mortality

16. A bacteria cell differs from eukaryotic cell because they have _____.

- A. cell wall
- B. nuclear membrane
- C. nuclear material
- D. cell membrane

17. Which of the following organisms causes syphilis?

- A. *Mycobacterium tuberculosis*
- B. *Bordetella pertussis*

- C. *Treponema pallidum*
- D. *Clostridium tetani*

18. The earth's major source of energy is the _____.

- A. stars
- B. sun
- C. moon
- D. heat

19. Which of these diseases is not caused by bacteria _____.

- A. malaria
- B. tuberculosis
- C. pneumonia
- D. tetanus

20. Possession of strong adhesives is a feature of animals living in _____.

- A. sandy beaches
- B. rocky shores
- C. benthic zones
- D. deserts

21. There are ____ types of ecological pyramids.

- A. 4
- B. 5
- C. 3
- D. 2

22. An association between the root nodules of a leguminous plant and rhizobium species, is known as _____.

- A. commensalisms
- B. saprophytism
- C. parasitism
- D. symbiosis

23. The word ecology is derived from the word ____.

- A. oikas
- B. oekis
- C. oikos
- D. aikis

24. _____ is a plant which grows on another plant without apparent harm to the host plant.

- A. A parasite
- B. An epiphyte
- C. A saprophyte
- D. A predator

25. The conservation of natural resources can be achieved by the following except through _____.

- A. creation of national parks
- B. formation of conservation societies and agencies
- C. establishment of game reserves
- D. regular deforestation

26. The presence of prop roots and breathing roots are features of plants found in the _____.

- A. tropical rain forest
- B. fresh water swamp forest
- C. mangrove forest
- D. northern guinea savannah

27. _____ has the highest water-retaining capacity.

- A. Clay
- B. Laterite
- C. Loam
- D. Gravel

28. Which of the following insects has an incomplete metamorphosis during its life cycle?

- A. Butterfly
- B. Mosquito
- C. Housefly
- D. Grasshopper

29. Which one of the following diseases can be prevented by inoculation?

- A. Syphilis
- B. Cancer of the liver
- C. Tuberculosis
- D. Acquired Immune Deficiency Syndrome (AIDS)

30. A group of interacting populations in a particular habitat is referred to as _____.

- A. ecological niche

- B. biotic community
- C. population
- D. habitat

31. A stable self-sustaining environment produced by an interaction between the biotic and abiotic components is best described as _____.

- A. a niche
- B. a community
- C. an ecosystem
- D. a habitat

32. A constituent of the exhaust gases of motor vehicles which causes serious air pollution is ____.

- A. water vapour
- B. carbon monoxide
- C. oxygen
- D. ozone

33. Which of the following is the least adaptive feature for arboreal life?

- A. Possession of four limbs
- B. Possession of claws
- C. Development of a long tail
- D. Counter shading of coat colour

34. In a food chain, each stage in the chain is a _____.

- A. chain level
- B. web level
- C. consumption level
- D. trophic level

35. _____ zone is not one of the major ecological zones of a marine habitat.

- A. Splash
- B. Wave
- C. Benthic
- D. Intertidal

36. The amount of energy contained in different types of food is expressed in _____.

- A. joules
- B. kilogrammes
- C. kilojoules
- D. grammes

37. Which of the following will have the least effect on the rate of change of the number of species in a population?

- A. Food supply
- B. Mutation
- C. Predation
- D. Disease

38. Which of the following ecological factors causes food shortage?

- A. Low rate of reproduction
- B. Emigration
- C. Drought
- D. Topography

39. Which of the following does not reduce air pollution?

- A. Siting factories and power stations away from residential areas.

- B. Recycling tins, cans and bottles.
- C. Passing waste gasses through filters and absorbers.
- D. Using lead-free petrol in cars.

40. Terrestrial organisms, which are capable of keeping their body temperature constant within fairly close limits, are referred to as _____.

- A. thermoclines
- B. homotherms
- C. poikilotherms
- D. eurytherms

41. The non-living part of an ecosystem is known as its _____.

- A. biotic component
- B. trophic level
- C. abiotic component
- D. biomes

42. Which of the following is not a type of pyramid?

- A. Pyramid of numbers
- B. Pyramid of energy
- C. Pyramid of biomass
- D. Pyramid of food web

43. Which one of the following is not a fresh water habitat?

- A. Ponds
- B. Rivers
- C. Lakes
- D. Seas

44. Competition among individuals of a population decreases the _____.

- A. number of organisms
- B. survival of the fittest
- C. availability of nutrient supplied
- D. enlargement of the territory

45. Sewage must be properly disposed to _____.

- A. avoid the smell that causes infection in people
- B. spread gastro-intestinal diseases
- C. prevent the out-break of water-borne diseases
- D. create space for subsequent waste produced

46. The condition that encourages denitrification is _____.

- A. low soil oxygen
- B. high soil nitrogen
- C. absence of soil bacteria
- D. lightning and thunderstorm

47. Which of the following major world biomes is found in Nigeria?

- A. Sahel savanna
- B. Tundra
- C. Desert
- D. Afro-alpine vegetation

48. The loss of water vapour through the aerial parts of the plant to the atmosphere is called _____.

- A. respiration
- B. guttation

- C. osmoregulation
- D. transpiration

49. Autecology is concerned with the study of _____.

- A. a group of organisms and their environment
- B. a single organism and its activities in different environment
- C. an individual organism and its environment
- D. multicellular organisms and their interaction with one another

50. Fishes cannot survive on land because they have _____.

- A. bodies covered with scales
- B. streamlined bodies
- C. no lungs
- D. no walking appendages

51. Bacteria and _____ are commonly responsible for the decay of dead plants and animals.

- A. viruses
- B. fungi
- C. earthworms
- D. yeasts

52. Which of the ways of controlling bilharzias can result in pollution?

- A. Clearing water weeds on which the snails feed.
- B. Treating infected people with drugs.
- C. Preventing contamination of water by infected urine and faeces.
- D. Applying chemicals to kill them.

53. The abiotic factor which determines the depth to which light penetrates into a pond is _____.

- A. current
- B. turbidity
- C. wind
- D. salinity

54. _____ is associated with aquatic habitats.

- A. Temperature
- B. Light intensity
- C. Turbidity
- D. All of the above

55. One distinctive feature in the life cycle of ulva is that they exhibit ____.

- A. alternation of generations
- B. vegetative reproduction
- C. asexual reproduction
- D. sexual reproduction

56. Which group is involved in the water cycle?

- A. Evaporation, transpiration and precipitation
- B. Evaporation, photosynthesis and transpiration
- C. Evaporation, burning and precipitation
- D. Evaporation, volcanic action and transpiration

57. Pneumatophores are essential for _____.

- A. nutrition
- B. movement

- C. breathing
- D. growth

58. Which of the following is not a behavioral adaptation used by social animals?

- A. Hibernation
- B. Mimicry
- C. Migration
- D. Aestivation

59. Which one of the following options is the most important pollutant of the marine environment in Nigeria?

- A. Insecticides
- B. Sewage
- C. Oil spill
- D. Inorganic fertilizers

60. The _____ law of thermodynamics states that in any conversion of energy from one form to another, there is always a decrease in the amount of useful energy.

- A. second
- B. first
- C. Third
- D. fourth

61. The study of the organisms and environment of an abandoned farmland is the ecology of _____.

- A. an ecosystem
- B. a population
- C. a species
- D. a habitat

62. Water loss is most rapid in _____ soil.

- A. sandy
- B. clayey
- C. sandy-loam
- D. loamy

63. The gas produced during decomposition of matter is _____.

- A. hydrogen sulphide
- B. carbon monoxide
- C. chlorine
- D. oxygen

64. Which sequence represents the correct order of organisms in a food chain?

- A. Toad
- B. Mucuna
- C. Grasshopper
- D. Snake

65. Energy exists in _____ major forms.

- A. 3
- B. 2
- C. 4
- D. 5

66. Which of these instruments can be used to perform an experiment on geotropism?

- A. Potentiometer
- B. Cup anemometer

- C. Klinostat
- D. Kymograph

67. Desert plants are usually called _____.

- A. hydrophytes
- B. mesophytes
- C. xerophytes
- D. saprophytes

68. Micro-organisms are used in the production of _____.

- A. fossil fuels
- B. culture media
- C. antibiotics
- D. minerals

69. Which of the following is not an example of a free living nitrogen bacteria?

- A. Azotobacter
- B. Clostridium
- C. Nostoc
- D. Nitrosomonas

70. Forest conservation includes the following except _____.

- A. prevention of bush-fires
- B. extensive felling of forest-trees
- C. replacing harvested trees by planting seedling
- D. selective exploitation of forest trees

71. Which of the following factors is not associated with aquatic habitats?

- A. Salinity
- B. Turbidity
- C. Temperature
- D. Edaphic

72. _____ energy is derived from chemical energy during cellular respiration.

- A. Heat
- B. Sound
- C. Electrical
- D. Mechanical

73. Which of the following is an effect of water pollution?

- A. Hepatitis
- B. Cancer
- C. Tuberculosis
- D. AIDS

74. Which one of the following is not a major component of fertilizer?

- A. Nitrogen
- B. Phosphorus
- C. Magnesium
- D. Potassium

75. Which one of the following gases is not produced by automobiles?

- A. Nitrogen monoxide
- B. Nitrogen dioxide

- C. Nitric acid
- D. Carbon dioxide

76. The most effective method of dealing with non-biodegradable pollutants is by _____.

- A. dumping
- B. recycling
- C. incineration
- D. burying

78. _____ is often described as environmental biology.

- A. Ecosystem
- B. Ecology
- C. Ecological
- D. Ecologist

79. In a savanna ecosystem, the abiotic factors include _____.

- A. sun, temperature and sandy soil
- B. water, temperature and soil
- C. minerals, oxygen and crude
- D. water, soil and grasses

80. In a food chain, each succeeding level in a forward direction represents _____.

- A. an increase in the number of individuals
- B. a decrease in the number of individuals
- C. an increase in the biomass of individuals
- D. a gain in the total energy being transferred

81. Which of the following instrument is used to measure the speed of a stream?

- A. Simple float
- B. Secchi disc
- C. Quadrant frame
- D. Rain gauge

82. All the available places on earth which support life constitute the _____.

- A. lithosphere
- B. atmosphere
- C. biosphere
- D. hydrosphere

83. Transparency of water is measured using a _____.

- A. secchi disc
- B. whirling hygrometer
- C. hydrometer
- D. wind vane

84. Which of these has the most complex level of organization?

- A. Euglena
- B. Hydra
- C. Heart
- D. Virus

85. Which of the following is used for the collection of small insects from soil, leaf litter and crevices?

- A. Pooter
- B. Quadrant

C. Sweep net

D. Drag net

86. Denitrification is defined as the process of _____.

A. breakdown of nitrogen in the atmosphere

B. addition of nitrogen to the soil

C. returning nitrogen into the atmosphere

D. removal of nitrogen from the atmosphere

87. The most important environmental factor which epiphytes in the rain forest compete for is _____.

A. water

B. nutrient

C. light

D. space

88. Which of the following instruments is not used in measuring abiotic factors in any habitat?

A. Microscope

B. Thermometer

C. Hygrometer

D. Wind vane

89. In an ecosystem the organism which changes light energy into stored chemical energy is the _____.

A. consumer

B. decomposer

C. producer

D. carnivore

90. Which of the following accurately represents an aquatic food chain?

- A. Paramecium -- phytoplankton -- prawn -- water flea -- tilapia -- shark.
- B. Water flea -- Paramecium -- phytoplankton -- prawn -- tilapia -- shark.
- C. Phytoplankton -- water flea -- Paramecium -- prawn -- shark -- tilapia.
- D. Phytoplankton -- Paramecium -- water flea -- prawn -- tilapia -- shark.

91. Rabbits cannot survive in an aquatic habitat because they have_____.

- A. fore-and hind-limbs
- B. no gills
- C. no eye spot
- D. no scales

92. Which of the following resources is non-renewable?

- A. Forest
- B. Wildlife
- C. Mineral deposits
- D. Water

93. An acidic soil can be improved upon by _____.

- A. sedimentation
- B. leaching
- C. flocculation
- D. watering

94. The change of colour by a chameleon to that of the environment is an example of _____.

- A. animal pretense
- B. protective colouration

- C. mimicry
- D. warning colouration

95. During combustion, carbon is oxidized to _____.

- A. carbon (iv) oxide
- B. trioxocarbonate iv
- C. oxygen
- D. nitrogen

96. Abiotic components include all except _____.

- A. fish
- B. water
- C. heat
- D. pressure

97. The major functional unit of an ecosystem is the _____.

- A. total energy flowing through the ecosystem
- B. population
- C. productivity
- D. trophic level

98. A _____ represents changes in energy flow between organisms in a habitat.

- A. pyramid of biomass
- B. pyramid of numbers
- C. pyramid of energy
- D. food chain

99. The gaseous chemicals used as coolants in air conditioners and refrigerators is known as _____.

- A. chlorofluorocarbons
- B. chlorofluorocarbons
- C. fluorocarbons
- D. chlorocarbons

100. Ecological succession ends with the formation of a stable _____.

- A. niche
- B. population
- C. pioneer community
- D. climax community

101. Which of the following processes will not introduce carbon dioxide into the atmosphere?

- A. Breathing
- B. Photosynthesis
- C. Respiration
- D. Putrefaction

102. Which of the following statements best explains the term aestivation?

A behavioural pattern of animals involving spending the hot dry season in a sleep-like, torpid state.

B. A behavioural pattern of animals involving long journeys from one place to another.

C. A behavioural pattern of animals involving spending the winter in a sleep-like, inactive, torpid state.

D. A behavioural pattern of animals involving scaring off predators.

103. A habitat with low rainfall, very low humidity, and exposed soil with little plant cover, few trees and shrubs is likely to be _____.

- A. a rain forest
- B. a mangrove forest
- C. a desert
- D. a swamp

104. A population is best described as _____.

- A. a group of the same species of organisms living together
- B. a group of animals and plants living together
- C. a group of insect and grasses
- D. different species of wild animals

105. Which of the following is not a way of reducing air pollution?

- A. Siting factories and power stations away from residential areas
- B. Recycling tins, cans and bottles
- C. Passing waste gases through filters and absorbers
- D. Using lead-free petrol in cars

106. The following are carbon cycling processes except _____.

- A. combustion
- B. decay
- C. transpiration
- D. respiration

107. _____ is the study of interactions of organisms with their physical environment and with each other.

- A. Ecology

- B. Biosphere
- C. Lithosphere
- D. Atmosphere

108. Northern guinea savanna is associated with _____.

- A. abundant rainfall
- B. abundant trees and shrubs
- C. soil with very little plant cover
- D. abundant grasses

109. Which of the following helps a hydrophyte such as the water lily solve the problem of buoyancy?

- A. Long stems and flower stalks
- B. Dissected leaves
- C. Thick cuticles
- D. Large, well-developed airspaces

110. The following conditions form the basis of competition in a habitat except _____.

- A. food
- B. body structure
- C. reproductive mate
- D. light

111. What is ecology?

- A. It is the study of plants and animals in relation to their environment.
- B. It is the study of the human digestive system in relation to the environment.
- C. It is the study of plants.
- D. It is the study of plants and animal harvesting.

112. Which of the following environmental factors is not considered in a terrestrial habitat?

- A. Temperature
- B. Sunlight
- C. Humidity
- D. Turbidity

113. Viruses are pathogens of the following diseases except _____.

- A. measles
- B. smallpox
- C. poliomyelitis
- D. tuberculosis

114. Trees in savannah habitats usually have heavy thick bark which mainly _____.

- A. reduces the rate of transpiration
- B. protect them from the scorching sun
- C. protect them from heavy winds
- D. resist bush fires

115. A certain savannah grasshopper changes colour from green during the rainy season; to brown, during the dry season; and black after the dry season bush fires. The reason for these colour changes is that the _____.

- A. grasshopper is getting older
- B. environmental temperature is changing
- C. grasshopper is avoiding predators
- D. is frequently moulting

116. Which of the following is transmitted through mosquito bites?

- A. Filariasis
- B. Typhus
- C. Plague
- D. Schistosomiasis

117. The similarity among organisms belonging to the same group will be least within each ____.

- A. family
- B. order
- C. kingdom
- D. species

118. Which one of the following is not a characteristic of fresh water habitat?

- A. Low salinity
- B. Low oxygen concentration
- C. Limited size and depth
- D. Variation in temperature

119. Ecology is best defined as the study of _____.

- A. the characteristics of living organisms in an environment
- B. the inter-relationship between living organisms and their environment
- C. the interaction that occurs between the molecules that make up living organisms
- D. habitats and wildlife

120. Which of the following may not contribute to environmental pollution?

- A. Recycled water
- B. Industrial waste

- C. Waste disposal
- D. Smoke

121. Which of the following organisms can be found in fresh water habitat?

- A. Sargassum and dogfish
- B. Red mangrove and pond skater
- C. Sargassum and red mangrove
- D. Spirogyra and pond skater

122. Which of the following spreads malaria in Nigeria?

- A. Anopheles mosquito
- B. Culex mosquito
- C. Tse-tse fly
- D. Housefly

123. The adaptations for water conservation in plants include the following except _____.

- A. scales in fishes
- B. scales on leaves
- C. thick cuticle
- D. spine

124. There are _____ types of food chain.

- A. 1
- B. 3
- C. 2
- D. 4

125. Which of the following takes place when a person's body temperature rises above 37°C?

- A. Sweating and vasoconstriction
- B. Panting and vasoconstriction
- C. Sweating and vasodilation
- D. Panting and vasodilation

126. Which of the following is not a factor responsible for population sizes?

- A. Natality
- B. Feeding
- C. Immigration
- D. Mortality

127. The unidirectional movements of water is called _____.

- A. water current
- B. tides
- C. waves
- D. erosion

128. A relationship in which one of the organism benefits while the other neither benefits nor is harmed is known as _____.

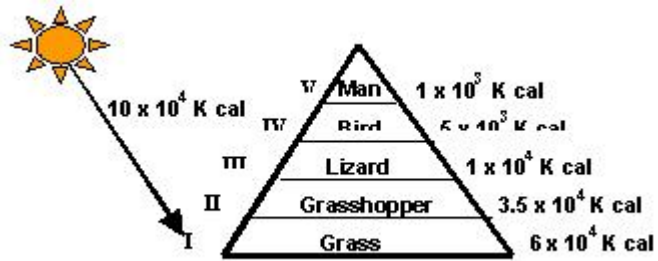
- A. co-operation
- B. commensalism
- C. mutualism
- D. saprophytism

129. Which one of the following is not an ecological factor to all habitats?

- A. Oxygen
- B. Light

- C. Salt
- D. Wind

130. What phenomenon in the ecosystem does the diagram illustrate?



- A. Pyramid of numbers
- B. Food web among organisms
- C. Pyramid of energy
- D. Pyramid of biomass

TOPIC: CLASSIFICATION OF LIVING THINGS

DIRECTION: Choose the correct answer from the lettered options.

1. Living things compete for all except _____.
 - A. offspring
 - B. water
 - C. space
 - D. mate

2. Which of the following is incorrect about auxins?
 - A. They are manufactured by plants.
 - B. They are used at the site of production.
 - C. They are normally present in minute quantities in the cells of plants.
 - D. They regulate growth rate in plants.

3. The exoskeleton of arthropoda is made of _____.
 - A. chitin
 - B. cartilage
 - C. xylem
 - D. bones

4. Which of the following are types of kingdoms?
 - A. Kingdom monera
 - B. Kingdom fungi
 - C. Kingdom Protista
 - D. All of the above

5. Which is the correct animal classification?

- A. Kingdom-Division-Order-Class-Family-Genus-Species
- B. Kingdom-Phylum-Class-Order-Family-Genus-Species
- C. Kingdom-Division-Class-Order-Family-Genus-Species
- D. Kingdom-Phylum-Family-Class-Order-Genus-Species

6. All are examples of fungi except _____.

- A. Mushroom
- B. Rhizopus
- C. Mucor
- D. Lichens

7. _____ provides the basis for growth of organisms.

- A. Food
- B. Light
- C. Water
- D. Good environment

8. _____ is defined as a systematic process of making enquiry about living and non-living things in our environment.

- A. Science
- B. Biology
- C. Research
- D. Experiment

9. Which of these Platyhelminthes is free living?

- A. Planarian
- B. Tapeworm

- C. Liver fluke
- D. Blood fluke

10. The following are examples of schizophyta except _____.

- A. bacteria
- B. viruses
- C. nostoc
- D. lichens

11. How many classes does the plant kingdom, spermatophyte have?

- A. 1
- B. 2
- C. 3
- D. 4

12. Spiders, mites, scorpions and ticks are examples of _____.

- A. Insecta
- B. Arachnida
- C. Crustaceans
- D. Myriapoda

13. The characteristic "irritability" can also be called _____.

- A. irritation
- B. sensation
- C. infection
- D. sensitivity

14. Food in plants is stored mainly as _____.

- A. glycogen
- B. fat
- C. fibre
- D. starch

15. Biology is basically grouped into how many main branches?

- A. 2
- B. 3
- C. 4
- D. 5

16. Biology can simply be defined as the _____.

- A. study of science
- B. study of life
- C. characteristics of life
- D. all of the above

17. Which of these organisms is both holozoic and autotrophic?

- A. Spirogyra
- B. Paramecium
- C. Euglena
- D. Amoeba

18. A virus can sometimes be regarded as a living organism because it_____.

- A. causes disease in plants and animals
- B. exists in a variety of shapes

- C. reproduces in living cells
- D. is easily visible with the aid of an electron microscope

19. Which of these is not a characteristic of animals?

- A. Food is stored mainly as glycogen and fat.
- B. Their cells have large vacuoles.
- C. They possess well developed excretory system.
- D. Their cells have thin flexible living cell membrane.

20. The body of arthropoda are divided into _____.

- A. head, stomach and abdomen
- B. head, thorax and abdomen
- C. head, abdomen and leg
- D. front, back and middle

21. The system of classification of living things was introduced by _____.

- A. Carolus Linnaeus
- B. Carolus Kent
- C. Richard Van der Hoff
- D. Linus Linnaeus

22. Which of these presentations is incorrect?

- A. Homo sapiens
- B. Panthra Leo
- C. Rattus rattus
- D. Zea Mays

23. The group Mollusca is characterized by the presence of _____.

- A. jointed appendages
- B. star-shaped bodies
- C. backbones
- D. soft, unsegmented bodies

24. _____ is the largest phylum in the animal kingdom?

- A. Mollusca
- B. Mammalia
- C. Arthropoda
- D. Protozoa

25. Which of the following is not a characteristic of living things?

- A. Nutrition
- B. Movement
- C. Sleeping
- D. Growth

26. Science can be applied to all areas of life.

- A. True
- B. False

27. In binomial nomenclature, the first name is usually the _____.

- A. kingdomic name
- B. generic name
- C. classic name
- D. specific name

28. A theory can be called a law when _____.

- A. a reasonable explanation has been derived for an observation
- B. the hypothesis is true
- C. it has been extensively tested and proven to be true
- D. a hypothesis is repeatedly correct within the limits of available evidence

29. Arthropods are divided into _____ classes.

- A. 1
- B. 2
- C. 3
- D. 4

30. When does the Euglena carry out holozoic nutrition?

- A. In the absence of sunlight
- B. When the chloroplast is depleted
- C. When its mouth and gullet are not functioning
- D. All of the above

31. Which of these is not an example of insecta?

- A. Housefly
- B. Spider
- C. Grasshopper
- D. Butterfly

32. Which of these has true roots, stems and leaves?

- A. Bryophyta
- B. Thallophyta

C. Schizophyta

D. Pteridophyta

33. Which of these is not an example of a Protozoa?

A. Amoeba

B. Paramecium

C. Hydra

D. Trypanosome

34. The phylum _____ does not consist of worms?

A. Platyhelminthes

B. arthropoda

C. nematode

D. Annelida

35. All living organisms have the following characteristics except _____.

A. photosynthesize

B. respire

C. move

D. feed

36. Division is to plants as _____ is to animals.

A. kingdom

B. genera

C. order

D. phylum

37. Animals move their entire body while plants move _____.
A. their whole body
B. their upper body
C. parts of their body
D. their lower body
38. Which of the scientific names is correct?
A. Animalia mammalia
B. Hominidae Felidae
C. Homo Felidae
D. Homo sapiens
39. In a dicot leaf, guard cells differ from other epidermal cells because they _____.
A. have no definite shape
B. lack nuclei
C. are smaller
D. contain chloroplasts
40. What is the difference between viviparous and oviparous animals? The latter____.
A. give birth to live offspring
B. lay unfertilized eggs
C. protects eggs from predators
D. lay and brood over egg
41. _____ are also classified as seed-bearing flowering plants.
A. Spermatophytes
B. Schizophyta

- C. Thallophyta
- D. Bryophyta

42. Which of these is not true about plants?

- A. Most plants carry out photosynthesis.
- B. They have no fixed number of parts and branching is continuous.
- C. Gaseous exchange occurs throughout the entire body.
- D. They possess special excretory systems.

43. Which of these parts of the Euglena makes it an animal?

- A. Pyrenoids
- B. Chloroplasts
- C. Nucleus
- D. Contractile vacuole

44. Which of these is not true about animals?

- A. Growth is indefinite and apical.
- B. They are holozoic feeders.
- C. They are active and have organs of movement.
- D. They possess specialized sense organs.

45. Which of these is not a characteristic of plants?

- A. They store food as glycogen.
- B. Growth is indefinite and apical.
- C. They are not active and have no organ of movement.
- D. They possess no special sense organ.

46. The function of the clitellum in the earthworm is to _____.

- A. aid digestion
- B. prevent desiccation
- C. assist locomotion
- D. secrete cocoon

47. The binomial nomenclature is a combination of _____ names.

- A. 2
- B. 3
- C. 4
- D. 5

48. The following are examples of myriapoda except _____.

- A. earthworm
- B. centipedes
- C. millipedes
- D. all of the above

49. The fibrous root system is typical to _____.

- A. dicots
- B. monocots
- C. gymnosperms
- D. ferns

50. Which of the following structures differentiates an animal cell from a plant cell?

- A. Ribosome
- B. Cell membrane

- C. Chloroplast
- D. Mitochondrion

51. The following make up kingdom Protista except _____.

- A. protophyta
- B. protozoa
- C. planktons
- D. none of the above

52. The Greek word 'logos' means _____.

- A. life
- B. help
- C. word
- D. study

53. _____ is a permanent increase in size and mass of an organism.

- A. Locomotion
- B. Growth
- C. Elongation
- D. Population

54. Living things respond to the following stimuli except _____.

- A. touch
- B. smell
- C. sound
- D. music

55. When can a concept become a theory?

- A. When the hypothesis is repeatedly correct within the limits of available vidence.
- B. When a theory has been extensively tested and proven to be true.
- C. When a good scientist conducts a research and is able to prove the authenticity of the research result.
- D. All of the above.

56. The basic unit of classification of living things is the _____.

- A. kingdom
- B. order
- C. family
- D. species

57. Which of the following structures is not found in a female agama lizard?

- A. Nuchal crest
- B. Eardrum
- C. Gular fold
- D. Nasal scale

58. Protozoa belongs to the group of organisms called _____.

- A. protista
- B. coelenterate
- C. schizothymes
- D. pseudopodia

59. Which of the following is a characteristic of living things?

- A. Movement
- B. Nutrition

- C. Irritability
- D. All of the above

60. Which one of the following is the correct plant classification?

- A. KINGDOM-DIVISION-ORDER-CLASS-FAMILY-GENUS-SPECIES
- B. KINGDOM-PHYLUM-CLASS-ORDER-FAMILY-GENUS-SPECIES
- C. KINGDOM-DIVISION-CLASS-ORDER-FAMILY-GENUS-SPECIES
- D. KINGDOM-DIVISION-FAMILY-CLASS-ORDER-GENUS-SPECIES

61. All are examples of Annelida except _____.

- A. earthworm
- B. leech
- C. tube worms
- D. tapeworms

62. The major groups of plant kingdom include the following except _____.

- A. tracheophyta
- B. bryophyte
- C. thallophytic
- D. spermatophyte

63 In fungi, food is stored as _____.

- A. starch
- B. fat
- C. fibre
- D. glycogen

64. Cotyledons refer to the number of _____.

- A. seeds
- B. seed leaves
- C. fruits
- D. roots

65. In an angiosperm root, the xylem is _____.

- A. in a separate bundle from the phloem
- B. surrounded by the phloem
- C. above the phloem
- D. around the phloem

66. Which of the following belongs to the group nematodes?

- A. Threadworms
- B. Hookworms
- C. Filarial worms
- D. All of the above

67. Which of these is not an example of a coelenterata?

- A. Hydra
- B. Trypanosome
- C. Jelly-fish
- D. Coral polyps

68. If an animal has scales, teeth, nerves and backbone, then the animal is likely to be a _____.

- A. toad
- B. bird

C. lizard

D. rat

69. Which is the correct way of writing scientific names?

(I) Italicizing the names only

(II) Underlining or italicizing the names

(III) Writing the first name with the initial letters in capitals and the second name in small letters.

A. I only

B. II only

C. II and III

D. I and II

70. Angiosperms are divided into which of these two classes?

A. Dicotyledons and Monocotyledons

B. Monocotyledons and Tricotyledons

C. Monocotyledons and Bicotyledons

D. Dicotyledons and Bicotyledons

71. In the egg of a bird, the embryo is located in the _____.

A. chalaza

B. yolk

C. albumen

D. embryo disc

72. Animals are divided into two main groups namely _____ and _____.

A. humans and animals

B. mammals and primates

- C. vertebrates and invertebrates
- D. unicellular and multicellular

73. Both algae and mosses contain _____.

- A. chlorophyll
- B. stem
- C. leaves
- D. roots

74. Which of these is not a characteristic of angiosperms?

- A. They are vascular plants.
- B. They have well developed and complete flowers.
- C. They are plants with naked seeds.
- D. They are mainly terrestrial plants.

Angiosperms bear seeds which are protected within fruits.

75. In the Binomial Nomenclature, the second name is usually the _____.

- A. kingdomic name
- B. generic name
- C. classic name
- D. specific name

76. Peripheral arrangement of vascular tissues in dicots is a characteristic of the internal structure of the _____.

- A. leaf
- B. petiole
- C. stem
- D. root

77. _____ is the basic unit of biological classification in which the Organisms interbreed among themselves only.

- A. Species
- B. Family
- C. Genus
- D. Order

78. The Greek word 'bios' means _____.

- A. study
- B. help
- C. life
- D. biology

79. What is the mode of nutrition for the mushroom?

- A. Parasitic mode of nutrition
- B. Saprophytic mode of nutrition
- C. Chemotrophic mode of nutrition
- D. Symbiotic mode of nutrition

80. Which one of the following parts of the Euglena enables it to carry out autotrophic nutrition?

- A. Pellicle
- B. Myoneme
- C. Chloroplast
- D. Gullet

81. Spirogyra reproduces vegetatively by _____.

- A. spore production

- B. fragmentation
- C. multiple fission
- D. budding

82. Tapeworm has a simple brain?

- A. True
- B. False

83. Which of these is a mollusc?

- A. Octopus
- B. Ringworm
- C. planarian
- D. Liver fluke

84. Another name for liver fluke (flatworm) is _____.

- A. Schistosoma
- B. Fasciola
- C. Hydra
- D. Trypanosome

85. Which of these is an example of Platyhelminthes?

- A. Hydra
- B. Trypanosome
- C. Tapeworm
- D. Threadworms

86. The stages of life for all living things are _____.

- A. birth -- growth -- reproduction -- decline

- B. birth -- growth -- maturity -- decline -- death
- C. death -- nutrition -- birth -- reproduction
- D. movement -- nutrition -- reproduction -- respiration -- growth

87. Which of these has a true body cavity or coelom?

- A. Coelenterate
- B. Protozoa
- C. Platyhelminthes
- D. Annelida

88. Which of these has a true body cavity or coelom?

- A. Coelenterate
- B. Protozoa
- C. Platyhelminthes
- D. Annelida

89. _____ is an important characteristic of green plants.

- A. Specialized sense organs
- B. Motility
- C. Autotrophic nutrition
- D. Rapid response to stimuli

90. In order of development, which of these plant kingdoms is the most developed?

- A. Pteridophyta
- B. Schizophyta
- C. Spermatophyte
- D. Thallophyta

91. Another name for blood fluke is _____.

- A. Schistosoma
- B. Fasciola
- C. planarian
- D. Leech

92. Which of these is not an algae?

- A. Penicillium
- B. Chlamydomonas
- C. Spirogyra
- D. Volvox

93. Heterotrophic nutrition is a characteristic of the following organisms' except _____ organisms

- A. commensal
- B. holophytic
- C. mutualistic
- D. holozoic

94. Which one of these organisms can be referred to as both a living and a non-living organism?

- A. Man
- B. Euglena
- C. Paramecium
- D. Virus

95. A faster colour change of a dry cobalt chloride paper affixed to the lower surface of a leaf than the upper one indicates that _____.

- A. sunlight slows down water loss from the upper surface

- B. the lower surface of the leaf has more stomata
- C. sunlight causes the stomata on the upper surface to close
- D. there are no stomata on the upper surface of a leaf

96. Everything in the world can be classified into _____ and _____.

- A. living things, dead things
- B. living things, non-living things
- C. animate things, living things
- D. inanimate things, non-living things

97. The following are examples of thallophytes except _____.

- A. fungi
- B. algae
- C. lichens
- D. bacteria

98. In the order of classification of living things, which one of these is the first?

- A. Phyla
- B. Kingdom
- C. Divisions
- D. Family

99. Which of the following plants is not carnivorous?

- A. Pitcher plants
- B. Mistletoes
- C. Bladderwort
- D. Sundew

100. Which of the following is incorrect about rhizopus or mucor?

- A. It is a fungus.
- B. It has non-septate hyphae.
- C. It undergoes sexual and asexual reproduction.
- D. It bears spores in sporangia.

101. _____ are the most complex green plants.

- A. Gymnosperms
- B. Thallophytes
- C. Angiosperms
- D. Bryophytes

102. Which of these worms is beneficial to man?

- A. Hookworm
- B. Tapeworm
- C. Roundworm
- D. Earthworm

103. Which of these is the most important characteristics of living organisms?

- A. Reproduction
- B. Nutrition
- C. Movement
- D. All of the above

104. In taxonomic rank, which of the following is the highest rank?

- A. Class
- B. Kingdom

- C. Phylum
- D. Species

105. Phyla is to animals as _____ is to plants.

- A. kingdom
- B. genera
- C. species
- D. division

106. _____ is common to a typical animal cell and a typical plant cell?

- A. Cellulose cell wall
- B. Chlorophyll
- C. Centrally placed nucleus
- D. Cell membrane

107. _____ is the study of plants and animals.

- A. Life
- B. Biology
- C. Science
- D. Research

108. Which of these parts of the Euglena makes it a plant?

- A. Paramylum granules
- B. Eye spot
- C. Contractile vacuole
- D. Nucleus

109. _____ are formed when algae and fungi exist together.

- A. Fungolis
- B. Lichens
- C. Funalga
- D. Bacteria

110. The tap root system is typical to _____.

- A. dicots
- B. monocots
- C. gymnosperms
- D. ferns

111. Which of these plant kingdoms have roots, stems or leaves?

- A. Spermatophyte
- B. Pteridophyta
- C. Schizophyta
- D. Thallophyta

112. Nematodes are also known as _____.

- A. flatworms
- B. earthworms
- C. hookworms
- D. roundworms

113. Plant classification was published in the year _____.

- A. 1707
- B. 1778

C. 1753

D. 1758

114. The jointed appendages of arthropods are used for all of the following except _____.

A. feeding

B. movement

C. reproduction

D. excretion

115. The following are examples of crustaceans except _____.

A. crab

B. shrimps

C. lobsters

D. periwinkles

116. A major difference between plants and animals is that _____.

A. movement in animals is free but limited in plants

B. there is indefinite growth in animals

C. animals consume inorganic materials as food, while plants consume organic materials

D. animals give up carbon dioxide as a waste product of respiration while plants do not

117. Which of the following is not true of animal cells?

A. Chloroplasts are present

B. Cytoplasm is present

C. Cell wall is absent

D. Vacuoles are present

118. Which one of these is the correct hierarchical arrangement?

- A. KINGDOM-PHYLUM-CLASS-DIVISION-FAMILY-GENUS-ORDER
- B. KINGDOM-PHYLUM-CLASS-ORDER-FAMILY-GENUS-SPECIES
- C. FAMILY-KINGDOM-COMPOUND-GENUS-SPECIES-PHYLUM-CLASS
- D. KINGDOM-CLASS-DIVISION-GENUS-SPECIES-PHYLUM-CLASS

119. Which of these characteristics makes virus a living organism?

- A. It is microscopic in nature.
- B. Its characteristics can be transferred from one generation to the next.
- C. It assumes a crystalline form in a non-living medium.
- D. It causes deadly and transferable disease like other microorganisms.
- E. All of the above

120. Invertebrates are divided into _____ groups.

- A. 2
- B. 4
- C. 6
- D. 8

121. Which of these is not a dicotyledon?

- A. Mango
- B. Cowpea
- C. Groundnut
- D. Maize

122. Animal classification was introduced in the year _____.

- A. 1707
- B. 1778

C. 1753

D. 1758

123. Which of these does not have a shell?

A. Snail

B. Slug

C. Periwinkle

D. Clam

124. In which of the following areas can science be applied?

A. Medicine

B. Construction

C. Engineering

D. All of the above

TOPIC: CONCEPT OF LIVING

DIRECTION: Choose the correct answer from the lettered options.

1. Which of the following is not true about living things?
 - A. All existing cells come from the reproduction of pre-existing cells
 - B. All living things are made up of cells.
 - C. Genetic information is passed down from offspring to parents.
 - D. All cells contains information for its structural and functional development in its nucleic acid.

2. The following are general characteristics of living things except _____.
 - A. growth
 - B. death
 - C. walking
 - D. adaptation

3. Animals move from place to place in search of the following except _____.
 - A. mates
 - B. water
 - C. air
 - D. shelter

4. Living things include _____ and _____.
 - A. plates and knives
 - B. meat and knife
 - C. plants and animals
 - D. plants and crops alone

5. Plants store their food as _____.

- A. glucose
- B. glycogen
- C. starch
- D. saccharides

6 _____ is the division of a cell to form another.

- A. Fusions
- B. Production
- C. Respiration
- D. Reproduction

Look at the diagram carefully and answer the question correctly.

7. What is the name of this animal?



- A. Egg
- B. Snail
- C. Snailing
- D. Snake

8. Which one of the following is not a vertebrate?

- A. Hen
- B. Man
- C. Fish
- D. Ant

9. Plants during photosynthesis give out _____ as a by product.

- A. fruits
- B. food
- C. carbon dioxide
- D. oxygen

Look at the diagram carefully and answer the question that follows.

10. What is the name of this type of fish?



- A. Tilapia
- B. Minnow
- C. Mackerel
- D. Shark

11. Which of these food types is rich in proteins?

- A. Bread
- B. Palm oil
- C. Beef
- D. Pawpaw

12. Substances making up living things are derived directly or indirectly from water, soil and _____.

- A. air
- B. trees
- C. energy
- D. none of the above

Look at the diagram carefully and answer the question correctly.

13. What is the name of the part labelled 1?



- A. Eye
- B. Nostrils
- C. Gills
- D. Mouth

14 The synthesis of complex molecules in living organisms from simpler molecules is known as _____.

- A. anabolism
- B. catabolism
- C. anabism
- D. catabism

15. The following are fields in which the knowledge of biology can be applied except _____.

- A. biotechnology
- B. agriculture
- C. economics
- D. genetics

16. The structural organization in tissues or organs are never found in _____.

- A. living things
- B. non-living things

C. plants

D. averse

17. What is growth?

A. It is an increase in the size of all parts of an organism.

B. It is an increase in the height alone of an organism.

C. It is an increase the width of a part of an organism.

D. It is a deformity that occurs which leads to the increase in height and width of the organism.

Look at the diagram carefully and answer the question correctly.

18. What is the name of the part labelled 2?



A. Tailing

B. Tail or caudal fin

C. Bifins

D. Labels

19. _____ is a waste product from plants.

A. Gum

B. Water

C. Carbon monoxide

D. None of the above

20. The division of kingdoms into smaller groups is called _____.

- A. phyla
- B. genus
- C. class
- D. species

21. Which of the following is not involved in the movement of living organisms?

- A. Bones
- B. Follicles
- C. Cilia
- D. Muscles

Examine the diagram carefully and answer the question that follows.

22. What is the name of this type of worm?



- A. Ringworm
- B. Speed worm
- C. Bagworm
- D. Earthworm

Look at the diagram carefully and answer the question correctly.

23. What is the name of this type of fish?



- A. Rayfish
- B. Catfish
- C. Money fish
- D. Sardine fish

24. When a hypothesis has been tested and found to be repeatedly correct within the limits of available evidence, it becomes a _____.

- A. theory
- B. certified hypothesis
- C. speculation
- D. doctrine

25. Sensitivity is another word for _____.

- A. irritability
- B. withdrawal
- C. response
- D. changes

Look at the picture carefully and answer the question correctly.

26. What is the name of this animal?



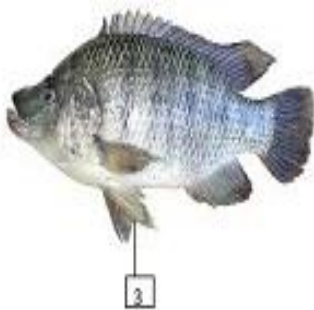
- A. Crocodile
- B. Newt
- C. Lizard
- D. Reptile

27. Do wall geckos look like lizards?

- A. Yes
- B. No

Look at the diagram carefully and answer the question correctly.

28. The part labelled 3 in the diagram is called _____.



- A. pelvic fin
- B. pectoral fin
- C. fin rays
- D. dorsal fin

29. The following are found in both plants and animals except _____.

- A. cytoplasm
- B. vacuole
- C. Golgi body
- D. centrioles

Look at the diagram carefully and answer the question correctly.

30. What is the name of this type of fish?



- A. Batfish
- B. Cowfish
- C. Sea fish
- D. Catfish

31. All living things feed to produce _____ energy for work.

- A. mechanical
- B. body
- C. chemical
- D. none of the above

32. Any object that does not possess life or living characteristics is a _____.

- A. living object
- B. non-living object
- C. growing object
- D. cell

33. The report of a scientific investigation should include the following except _____.

- A. observation
- B. hypothesis
- C. experimental procedure
- D. practical

34. A _____ is a reasonable explanation for a particular observation.

- A. theory
- B. hypothesis
- C. guess
- D. observation

35. Unicellular organisms are called _____.

- A. protozoans
- B. metazoans
- C. pongidae
- D. proteus

36. The newt is an animal that looks like a _____.

- A. fowl
- B. bird
- C. cockroach
- D. lizard

Look at the picture carefully and answer the question correctly.

37. What is the name of the animal in the picture?



- A. Lizard
- B. Lizerd
- C. Wall gecko
- D. Agama lizard

38. An order is a group of related _____.

- A. genera
- B. families
- C. classes
- D. phyla

39. _____ consists of the nucleus and cytoplasm.

- A. Protoplasm
- B. Chromosome
- C. Lysosomes
- D. Organelles

40. What is metabolism?

- A. It is change in a cell that leads to the increase in the height and width of the organism.
- B. It is the conversion of non-living materials into cellular components.

- C. It is the breakdown of food and fluid substances in the body to produce waste.
- D. It is the decomposition of inorganic matter.

Look at the diagram carefully and answer the question correctly.

41. What is this animal called?



- A. Leech
- B. Lich
- C. Linc
- D. Lach

42. The process where by the food you eat is made part of the body is called _____.

- A. growth
- B. ingestion
- C. addition
- D. assimilation

43. Which of the following is an organelle directly involved in cell division in animals?

- A. Cytoplasm
- B. Centrioles
- C. Mitochondria
- D. Cell wall

44. _____ is a metabolic process that breaks down organic matter.

A. catastrophe

B. catalogue

C. catabolism

D. anabolism

TOPIC: CONSERVATION OF NATURAL RESOURCES

DIRECTION: Choose the correct answer from the lettered options.

1. _____ is the process where only mature trees are allowed to be felled for timber.

- A. Indiscriminate cutting
- B. Random tree cutting
- C. Selective cutting
- D. Tactical tree felling

2. Which of the following is not a means of conserving natural resources?

- A. Establishment of national parks
- B. Selective logging
- C. Building of dams
- D. Bush burning

3. In which of the following states in Nigeria is Borgu game reserve found?

- A. Enugu
- B. Anambra
- C. Kano
- D. Niger

4. Which of the following is not a conservable natural resource?

- A. Minerals
- B. Sunlight
- C. Forest
- D. Soil

5. What does planting of trees that provide surface cover for the soil do?
- A. It reduces soil nutrients.
 - B. It causes deficiency in plant growth.
 - C. It prevents rain from the soil.
 - D. It reduces water evaporation from the soil.
6. Afforestation is best described as _____.
- A. the harvesting of natural forest resources
 - B. planting trees of value to man
 - C. fallowing forestland
 - D. felling trees in the forest
7. _____ is the judicious use of natural resources to ensure their continuous availability and to preserve the original nature of the environment.
- A. Conservation of natural resources
 - B. Human resource control
 - C. Wildlife study
 - D. Environmental study
8. Storage of water in tanks or wells is a method of _____ water.
- A. recycling
 - B. treating
 - C. conserving
 - D. reusing
9. Natural resources are classified into ____ categories.
- A. 1
 - B. 3

C. 2

D. 4

10. _____ are resources which when exhausted cannot be replaced or recovered.

A. Non-renewable resources

B. Renewable

C. Conserved

D. Recycled

11. Which one of the following is a set of natural resources that needs to be conserved?

A. Blood, wildlife, lime and arteries

B. Concrete, sand, skin and fingers

C. Fingers, forest, head and skin

D. Water, wildlife, forest, and mineral resources

12. Why are mineral resources non-renewable?

A. They are never exhausted.

B. They can be replaced quickly.

C. Once they are exhausted, they cannot be replaced.

D. It is very small in quantity.

13. The term used in describing the effective management of natural resources by man is known as _____.

A. conservation

B. utilization

C. economics

D. development

14. The largest game reserve in Nigeria is the _____.
- A. Kanji Game Reserve in Niger State
 - B. Zamfara forest Reserve in Zamfara State
 - C. Yankari Game Reserve in Bauchi State
 - D. Borgu Game Reserve in Niger State
15. The conservation of non-renewable resources involves the following except _____.
- A. minimizing their wastage
 - B. using other natural resources
 - C. recycling them where possible
 - D. finding acceptable alternatives
16. Methods of soil conservation includes _____.
- A. overgrazing
 - B. deforestation
 - C. recycling of materials
 - D. afforestation
17. Which of the following farm practices can cause loss of soil fertility?
- A. Mulching
 - B. Compost application
 - C. Use of fertilizers
 - D. Intensive cropping
18. _____ involves the spreading of a layer of vegetable materials on cultivated farmland.
- A. Planting

- B. Fallowing
- C. Mulching
- D. Cultivation

19. Are mineral resources renewable?

- A. No
- B. Yes

20. The conservation of natural resources can be achieved by the following except _____.

- A. creation of national parks
- B. formation of conservation societies and agencies
- C. establishment of game reserves
- D. deregulated harvesting

21. Which one of the following is not a nature reserve in Nigeria?

- A. Borgu game reserve
- B. Yankari game reserve
- C. Olomu forest reserve
- D. Kalugu forest reserve

22. Which one of the following is not a way of ensuring conservation?

- A. Establishment of agencies
- B. Promoting conservation education
- C. Establishment of conservation laws
- D. Destruction of zoological gardens

23. Conservation of natural resources is aimed at _____.

- A. preventing the loss, waste or exploitation of natural resources through rational use
- B. preventing the spread of infectious diseases within a geographical location
- C. preventing the spread of diseases from domestic animals to humans
- D. none of the above

24. Which of the following is a way of conserving natural resources?

- A. Establishing agencies for conservation and game reserves.
- B. Establishing companies and educational facilities.
- C. Regular renewal of used mineral resources.
- D. Ensuring wildlife becomes extinct.

25. The planting of new trees where there was no tree is known as _____.

- A. afforestation
- B. deforestation
- C. re-planting
- D. plantation farming

26. Through which of the following means can conservative education be effectively done?

- A. Television
- B. Cinemas
- C. Newspapers
- D. All of the above

27. Which one of the following animals should be conserved?

- A. Domestic animals
- B. Wild animals

- C. Farm animals
- D. All of the above

28. The farming practice by which an exhausted farmland is left for a number of years before cultivation is known as _____.

- A. crop rotation
- B. continuous cropping
- C. mono cropping
- D. bush fallowing

29. _____ is not one of the advantages of clearing aquatic vegetation.

- A. Providing enough space for fish
- B. Allowing free oxygen circulation
- C. Increasing productivity
- D. Introducing harmful substances

30. The following agencies are responsible for conservation in Nigeria except _____.

- A. Forestry Departments
- B. Nigerian Conservation Society
- C. Games Reserve Authority
- D. Red Cross Society

31. Prevention of erosion could best be carried out by _____.

- A. crop rotation and deforestation
- B. contouring of sloping ground and afforestation
- C. grazing, terracing and shifting cultivation
- D. strip cropping and poaching

32. Which of the following is not a method of conserving fishing grounds?

- A. Use of nets with all sizes of mesh.
- B. Use of nets with a particular mesh size.
- C. Ban on harvesting of some species.
- D. Regulating the sizes of mesh.

33. Which one of the following is not an example of mineral resources?

- A. Petroleum
- B. Coal
- C. Bauxite
- D. Gammalin

34. The felling of trees can be referred to as _____.

- A. forestry
- B. afforestation
- C. deforestation
- D. harvesting

35. Which of the following is not a result of pollution of air and water?

- A. Decrease in plant population
- B. Proper animal growth
- C. Death
- D. Poisoning

36. In checking wind erosion, _____ can serve as wind brakes.

- A. stems
- B. trees
- C. leaf
- D. roots

37. _____ is a practice of illegally killing animals for commercial purposes.

- A. Hunting
- B. Poaching
- C. Murder
- D. None of the above

38. Which of the following is not part of the objectives of natural resource conservation?

- A. To eliminate all wild animals for the survival of others.
- B. To use our resources on sustained yield basis.
- C. To guard against indiscriminate killing of plants and animals.
- D. To guard against the extinction and exhaustion of natural resources.

39. What are the benefits of conservation?

- A. It helps to maintain a healthy functioning ecosystem.
- B. Natural reserves can be used to generate revenue.
- C. It preserves the beauty of nature.
- D. All of the above

40. _____ is defined as the repeated grazing on a piece of land by domestic animals.

- A. Overstepping
- B. Overfeeding
- C. Overgrazing
- D. All of the above

41. The following are main types of tissues in higher organisms except _____ tissues.

- A. digestive

- B. vascular
- C. muscular
- D. nervous

42. In conservation of wildlife, killing of animals should _____.

- A. be allowed frequently
- B. be allowed moderately
- C. not be allowed
- D. none of the above

43. Which of the following is a benefit of soil conservation?

- A. Prevention of soil erosion
- B. Prevention of over-grazing
- C. Escape of nutrients
- D. None of the above

44. Which of the following is not a way of conserving the soil?

- A. Use of cover crops
- B. Bush burning
- C. Mulching
- D. Better farming practices

45. Loam is the best type of soil for crop production because _____.

- A. it has a high percentage of clay, which prevents leaching
- B. it has high humus content
- C. it is porous and has good water retention capacity
- D. gravels, which obstruct implements, are absent

46. Which one of the options is not a characteristic of aves?

- A. They are warm-blooded animals.
- B. They have no outer ear.
- C. They have a four chambered heart.
- D. They do not have lungs.

47. Which of the following is not a non-renewable resource?

- A. Food
- B. Natural gas
- C. Coal
- D. Gasoline

48. Which of the following is an importance of natural resources?

- A. It provides drinking water.
- B. It provides food for human consumption.
- C. It generates revenue for the government.
- D. All of the above.

49. Oil spillage pollutes the _____.

- A. air
- B. water
- C. mind
- D. none of the above

50. Which of the following is an air pollutant?

- A. Oxygen
- B. Water vapour
- C. Carbon monoxide
- D. Nitrogen

TOPIC: ORGANISATION OF LIFE

DIRECTION: Choose the correct answer from the lettered options.

1. Which of the following methods of reproduction is common to Paramecium and Amoeba?

- A. Conjunction
- B. Sexual reproduction
- C. Binary fission
- D. Budding

2. Lining and protection of plant surface is a function of the _____.

- A. leaf
- B. tissues
- C. strengthening tissues
- D. epithelial tissues

3. The main similarity between unicellular and multicellular organisms is that both _____.

- A. perform all life activities
- B. exist as filaments
- C. are plants
- D. exist as colonies

4. Transportation of food and water in plants is by the _____.

- A. pacting
- B. vascular bundle
- C. pericycle
- D. cortex

5. Characteristics of aves include the following except _____.

- A. they are homoeothermic
- B. their skeleton is rigid and their bones have air sacs
- C. they give birth to their young ones alive
- D. their head, neck and trunks are covered with feathers

6. A system is made up of different _____.

- A. tissues
- B. organs
- C. cells
- D. none of the above

7. The oesophagus and the pancreas belong to the _____ system.

- A. digestive
- B. respiratory
- C. reproductive
- D. circulatory

8. There are _____ levels of organization of life in organisms.

- A. 3
- B. 6
- C. 4
- D. 7

9. What is the function of the nervous tissues?

- A. Conducting impulses
- B. Supporting the body

- C. Forming the skin
- D. Conveying food and oxygen

10. Which of these does not manufacture its own food?

- A. Virus
- B. Spirogyra
- C. Green algae
- D. Euglena

11. Euglena moves by _____.

- A. whipping action of its flagellum
- B. beating of its cilia
- C. rotating action of the microvilli
- D. locating the pseudopodia and cilia simultaneously

12. Diatoms, Euglena, Spirogyra and Volvox are all examples of _____.

- A. fungi
- B. algae
- C. bacteria
- D. Amoeba

13. What is the name of the structure in the cell that controls the movement of substances in and out of the cell?

- A. Cytoplasmic membrane
- B. Nuclear membrane
- C. Cytoplasm
- D. Protoplasm

14. The _____ is the functional and structural unit of life.

- A. organ
- B. system
- C. cell
- D. tissue

15. Which of the following pairs of organisms exists as colonies?

- A. Obelia and Euglena
- B. Pandorina and Volvox
- C. Chlamydomonas and Amoeba
- D. Hydra and Spirogyra

16. An example of an animal made up of tissues only is _____.

- A. Amoeba
- B. Paramecium
- C. Hydra
- D. Euglena

17. The main function of the xylem and phloem is _____.

- A. photosynthesis
- B. support
- C. conduction and translocation
- D. reproduction and photosynthesis

18. The _____ law of thermodynamics states that energy can neither be created nor destroyed.

- A. first
- B. second

- C. Third
- D. fourth

19. Which of the following is not correct about a living cell?

- A. The basic unit of a living organism is the cell.
- B. All living organisms are either single or groups of cell(s).
- C. All the cells in an organism are the same.
- D. There is no life apart from the life in cells.

20. The vegetative plant body of fungi is called _____.

- A. pileus
- B. gill
- C. stipe
- D. hyphae

21. The chemical formula for oxygen is _____.

- A. OX_2
- B. O
- C. O_2
- D. H_2O

22. Movement of parts of the body is by _____ tissues.

- A. muscle
- B. epithelial
- C. connective
- D. nerve

23. The digestive system is made up of organs such as the following except _____.

- A. stomach
- B. veins
- C. duodenum
- D. ileum

24. Euglena may be classified as a plant because it _____.

- A. has chloroplasts
- B. has a gullet
- C. lives in a pond
- D. possesses a flagellum

25. The simplest of all the levels of organization in mammals is the _____.

- A. tissue
- B. organ
- C. system
- D. cell

26. What is energy?

- A. Energy is defined as the ability to do work.
- B. Energy is defined as the ability to carry effort.
- C. Energy is force.
- D. Energy is the speed exerted on force.

27. _____ is a disadvantage of complexity in higher organisms.

- A. High energy requirement
- B. Functional efficiency

- C. Low energy requirement
- D. Increase in size

28. Stamen and pistil are organs in the _____ system.

- A. root
- B. shoot
- C. transport
- D. reproductive

29. Which of the following structures controls the activities of a living cell?

- A. Nucleus
- B. Centrosome
- C. Chloroplast
- D. Golgi body

30. Which one of the following is the ultimate source of energy?

- A. Rain
- B. The cloud
- C. The water vapour
- D. The sun

31. What is a single-celled organism called?

- A. Mon cellular
- B. Unicellular
- C. Single cellular
- D. None of the above

32. Living things are made up of _____.

- A. blood
- B. skeleton
- C. cells
- D. muscles

33. A tissue is a collection of _____.

- A. cells
- B. organs
- C. systems
- D. muscles

34. The cilia in Paramecium are used for _____.

- A. respiration
- B. locomotion
- C. protection
- D. producing food

35. Which of the following systems provides places for the attachment of muscles?

- A. Nervous systems
- B. Reproductive systems
- C. Skeletal systems
- D. Digestive systems

36. A multicellular organism has _____.

- A. Two cells
- B. many cells

- C. less than one cell
- D. none of the above

37. The following are examples of cytoplasmic structures except _____.

- A. vacuoles
- B. flagella
- C. cilia
- D. fur

38. In humans, exchange of gases take place with the help of the _____ and _____.

- A. nose, lungs
- B. skin, mouth
- C. heart, lungs
- D. all of the above

39. Amoeba moves by means of _____.

- A. cilia
- B. flagella
- C. pseudopodia
- D. swimmerets

40. The _____ law of thermodynamics states that in any conversion of energy from one form to another, there is always a decrease in the amount of useful energy.

- A. Third
- B. first
- C. second
- D. fourth

41. The second level of organization in mammals is _____.
- A. cells
 - B. organs
 - C. tissues
 - D. systems
42. The scientist who discovered the honey-comb structure of the cell was _____.
- A. Robert Hooke
 - B. Felix Dujardin
 - C. Mathias Schleiden
 - D. Louis Pasteur
43. Most of the energy in the cell is produced in the _____.
- A. mitochondrion
 - B. lysosome
 - C. plastid
 - D. Golgi apparatus
44. What gives support to flowering plants?
- A. Stem and leaves
 - B. Root and root hairs
 - C. Xylem
 - D. Phloem
45. The formation of fats and oils from fatty acids and glycerol is an example of _____ process.
- A. photolytic
 - B. anabolic

- C. catabolic
- D. metabolism

46. Which of the following organisms does not carry out photosynthesis?

- A. Chlorella
- B. Spirogyra
- C. Paramecium
- D. Chlamydomonas

47. Which one of the following sets represents energy forms?

- A. Mechanical, electrical, solar, potential
- B. Steam, kinetic, mechanical, solar
- C. Power, current, voltage, circuit
- D. Nuclear, solar, car, machine

48. The levels of organization of life in organisms are _____, _____, _____ and _____.

- A. cells, tissues, organs, systems
- B. kingdom, phylum, class, order
- C. appendicular, axial, upper limbs, lower limbs
- D. eye, ear, nose, tongue

49. The main organs in the female reproductive system include the following except _____.

- A. testicle
- B. vagina
- C. ovaries
- D. uterus

50. Which of the following constitutes the main internal tissues of a leaf?

- A. Cuticle
- B. Mesophyll
- C. Vascular tissue
- D. Lower epidermis

TOPIC: PLANT AND ANIMAL NUTRITION

DIRECTION: Choose the correct answer from the lettered options.

1. A person that is obese must avoid meals containing _____ and _____.

- A. carrots and oranges
- B. margarine and butter
- C. groundnut and beans
- D. beef and yam

2. When food is oxidized, _____ is released.

- A. CO₂
- B. O₂
- C. energy
- D. carbohydrate

3. The first stable product of photosynthesis is _____.

- A. water
- B. starch
- C. carbon dioxide
- D. glucose

4. What are the two basic modes of nutrition in living organisms?

- A. Holozoic and heterotrophic
- B. Autotrophic and holozoic
- C. Holophytic and chemosynthesis
- D. Holozoic and photosynthesis

5. Nutrients needed by plants in tiny amounts are known as _____.

- A. macronutrients
- B. essential elements
- C. trace nutrients
- D. all of the above

6. In the classification of living organisms, nematode, Annelida and mollusca are examples of _____.

- A. genus
- B. kingdom Plantae
- C. kingdom Animalia
- D. special

7. To retain the desirable trait of large body size in a herd observed by the farmer, he needs to _____.

- A. feed the animals in the herd with more food
- B. cross-breed the animals with a different herd
- C. inbreed the animals within the herd
- D. prevent diseases in his herd

8. The role of adenosine triphosphate (ATP) include all except _____.

- A. chemical energy production
- B. transmission of nerve impulses
- C. alcohol production in aerobic respiration
- D. water production in aerobic respiration

9. Vitamin E is concerned with _____.

- A. bone formation

- B. reproduction
- C. vision
- D. formation of red blood cell

10. What is the function of bacteria in the large intestine of man?

- A. To synthesize vitamin K and B2
- B. To digest vegetables
- C. To synthesize vitamins A and D
- D. To absorb water

11. Heterotrophic nutrition can be defined as _____.

- A. feeding by depending on one's own manufactured food
- B. direct or indirect nutrition from plants
- C. feeding of child by parent
- D. nutrition of plants through photosynthesis

12. Which of the following is a symbol for representing manganese?

- A. Mn
- B. Mg
- C. Ma
- D. Ms

13. What mode of nutrition is exhibited by autotrophs?

- A. Holophytic
- B. Heterophic
- C. Chemotrophic
- D. Holozoic

14. Which of the following organs are directly involved in nutrition?

- A. Oesophagus, bronchus, stomach, pancreas and anus
- B. Spleen, pharynx, duodenum, jejunum and rectum
- C. Teeth, oesophagus, ileum and large intestine
- D. Salivary gland, liver

15. Which of the following groups consists of heterotrophs?

- A. Mucor, Chlamydomonas and Euglena
- B. Spirogyra, mucor and mushroom
- C. Man, mucor and mushroom
- D. Man, maize and cocopea

16. Which of the following is an autotrophic mode of nutrition?

- A. Chemosynthesis
- B. Saprophytism
- C. Parasitism
- D. Symbiosis

17. Which one of the following is not a storage organ in plants?

- A. Underground stems
- B. Root tubers
- C. Seeds
- D. Buds

18. The following are factors that affect photosynthesis except _____.

- A. chlorophyll concentration
- B. water logged soil

- C. optimum temperature
- D. light intensity

19. All organs of plants with chlorophylls are _____ in colour.

- A. green
- B. yellow
- C. brown
- D. white

20. Which of the following structural features makes *Drosera* (sundew) adapt to its carnivorous mode of nutrition?

- A. Long root with glandular hairs
- B. Club-shaped glandular hairs on leaves
- C. Prominent lenticel on the stem
- D. Broad leaves with long spines

21. In the marine food web, the source of energy to the producer comes from the _____.

- A. sea waves
- B. sea water
- C. sun
- D. air

22. _____ are fungi or bacteria that feed on dead organic matter.

- A. Endo parasites
- B. Saprophytes
- C. Commensals
- D. Symbionts

23. In humans, water can be excreted through _____.

- A. the skin
- B. the digestive tract
- C. the cytoplasm of worn-out cells
- D. the cellular respiration

24. Thunderstorm can be beneficial to plants because it _____.

- A. kills the pests that attack the crops
- B. destroys some of the major crops
- C. adds nitrates to the soil
- D. adds lime to the soil

25. Which of the following is used to test for protein?

- A. Million's reagent
- B. Fehling's solution
- C. Sudan III
- D. Iodine solution

26. During which of the following processes is food for animals produced?

- A. Photosynthesis
- B. Respiration
- C. Nutrition
- D. Digestion

27. Which of the following is not one of the processes involved in nitrification?

- A. Conversion of ammonia into nitrites
- B. Conversion of nitrites into nitrates

- C. Conversion of nitrates into nitrogen gas
- D. None of the above

28. Which of the following is the best proof of photosynthesis by a plant?

- A. Absorption of light
- B. Formation of starch
- C. Availability of carbon dioxide
- D. Splitting of water molecules

29. Which of the following is not a micronutrient?

- A. Molybdenum
- B. Phosphorus
- C. Iron
- D. Manganese

30. The _____ is vestigial in humans but functional in other mammals.

- A. liver
- B. appendix
- C. rectum
- D. stomach

31. The mode of nutrition exhibited by a tapeworm is _____.

- A. symbiotic
- B. saprophytic
- C. parasitic
- D. holozoic

32. Chlorophyll and protein formation is a function of _____.

- A. iron
- B. sulphur
- C. potassium
- D. calcium

33. Which of the following essential substances is contained in vegetables?

- A. Chlorophyll
- B. Glucose
- C. Mineral salts
- D. Carbon dioxide

34. Which of the following juices contains the enzyme ptyalin?

- A. Gastric juice
- B. Pancreatic juice
- C. Succus
- D. Saliva

35. Which one of the following does not reduce chlorophyll concentration?

- A. High light intensity
- B. Mineral deficiency diseases
- C. Ageing process
- D. Optimum light intensity

36. An experiment designed to eliminate all bias when carrying out an experiment is known as the _____?

- A. observation
- B. inference for the experiment

- C. established hypothesis
- D. controlled experiment

37. Which of the following pairs of organisms are photosynthetic?

- A. Amoeba and Paramecium
- B. Volvox and Rhizopus
- C. Chlamydomonas and Euglena
- D. Nostoc and Plasmodium

38. Green plants manufacture their food in the presence of sunlight through the process of _____.

- A. photosynthesis
- B. chemosynthesis
- C. nutrition
- D. saprophytism

39. _____ is not a mineral salt required for the synthesis of proteins, fats and oils in plants.

- A. Phosphates
- B. Nitrates
- C. Carbon
- D. Sulphates

40. When reporting a scientific investigation, which of the following option is correct?

- A. Observation ---> Control ---> Theory ---> Inference ---> Data
- B. Observation ---> Inference ---> Measurement ---> Identification ---> Hypothesis ---> Experiment ---> theory
- C. Collection ---> Aim ---> Objective ---> Method ---> Experiment ---> Conclusion
- D. Observation ---> Hypothesis ---> Experiment ---> Result ---> Analysis ---> Conclusion

41. In the biuret's test, some protein was mixed with sodium hydroxide solution. Which of the following chemicals should be added to the mixture for positive results?

- A. Mercurous nitrate
- B. Copper sulphate
- C. Mercuric nitrate
- D. Sodium carbonate

42. Autotrophic nutrition may be described as food obtained _____.

- A. from other organisms in exchange for some products
- B. by the breakdown of complex substances to simple digestable substances
- C. by an organism utilizing its own store of energy
- D. by synthesizing simple substances using energy from an external source

43. Green plants require _____ to manufacture their food.

- A. fluids
- B. inorganic substances
- C. living materials
- D. gases only

44. In which of the following forms can carbohydrate be stored in yam?

- A. Glucose
- B. Maltose
- C. Starch
- D. Glycogen

45. Which of the following mineral salts is a trace element?

- A. Zinc
- B. Carbon

- C. Hydrogen
- D. Potassium

46. Which of the following is used to test for starch?

- A. Million's reagent
- B. Fehling's solution
- C. Sudan III solution
- D. Iodine solution

47. The _____ of a plant is the only structure capable of trapping sunlight..

- A. guard cell
- B. chlorophyll
- C. cuticle
- D. vascular bundle

48. The dentition of an herbivore is distinct from that of other animals due to the presence of _____.

- A. diastema
- B. cusps on molar teeth
- C. canines
- D. ridges on molar teeth

49. Carbon (iv) oxide diffuses into the leaves through the _____ to the mesophyll layer.

- A. stomata
- B. guard cells
- C. air space
- D. epidermis

50. A _____ colour confirms the presence of starch in a leaf.

- A. blue-green
- B. blue-grey
- C. blue-black
- D. blue

51. The importance of a balanced diet is to _____.

- A. maintain constant size of an animal
- B. provide good taste in the food
- C. increase the effectiveness of digestion
- D. provide good health for an individual

52. In the body, dietary vitamins plays the role of _____.

- A. supplying carbohydrates and fats
- B. influencing certain chemical processes
- C. stimulating the muscles of the alimentary canal
- D. digesting proteins

53. In the test for starch, the leaf is first placed in boiling water in order to _____.

- A. remove the chlorophyll
- B. dissolve the waxy cuticle
- C. kill and make the leaf permeable
- D. turn it blue-black

54. The nutrient necessary for nitrogen fixation is _____.

- A. zinc
- B. chlorine

C. molybdenum

D. copper

55. Only green plants can carry out autotrophic nutrition.

A. True

B. False

56. The teeth used for tearing and cutting are _____ and _____.

A. canine and molars

B. premolars and incisors

C. molars and incisors

D. canine and incisors

57. Stunted growth and chlorosis are deficiencies in plants that lack the following except _____.

A. nitrogen

B. magnesium

C. manganese

D. iron

58. Which of the following organisms exhibits extracellular digestion?

A. Moulds

B. Green plants

C. Algae

D. Bryophytes

59. An example of a macronutrient is _____.

A. zinc

- B. copper
- C. boron
- D. sulphur

60. Nitrogen-fixing microorganisms in leguminous plants live symbiotically in the _____.

- A. root nodules
- B. taproots
- C. branch roots
- D. root hairs

61. Which of the following statements is not true of the light stage of photosynthesis?

- A. Chlorophyll is energized by sunlight.
- B. Water molecules split into hydrogen and hydroxyl ions.
- C. Carbon (IV) oxide is reduced by hydrogen atoms in NADPH₂.
- D. Water is formed.

62. For heterotrophic organisms, competition is least caused by the inadequacy of _____.

- A. mates
- B. space
- C. light
- D. nutrients

63. Which of the following does not represent a heterotrophic mode of nutrition?

- A. Symbiosis
- B. Parasitism
- C. Commensalism
- D. Holophytism

64. When proteins are broken down, they provide the body with _____.
A. glycerol
B. monosaccharaides
C. energy
D. amino acids
65. Which of the following is considered the first product of photosynthesis?
A. Protein
B. Energized chlorophyll
C. Hydroxyl ions
D. Starch
66. Good quality food will perform the following functions in humans except _____.
A. supply energy for the body
B. provide resistance against natural disasters
C. sustain growth
D. maintain health
67. Which of the following is not an importance of calcium?
A. It is involved in cell wall formation.
B. It is necessary for protein formation.
C. It is vital for enzyme activation.
D. It helps give rigidity to plants.
68. Legumes incorporate nitrogen gas into their proteins because _____.
A. of the presence of azotobacter in their roots
B. they possess root nodules containing Rhizobium

- C. they have a well-developed root system
- D. they are autotrophic

69. Which of the following is not true of photosynthesis?

- A. Energy from sunlight is absorbed.
- B. Carbon dioxide is evolved.
- C. Glucose is synthesized.
- D. Oxygen is given off.

70. A thunderstorm can be beneficial to plants because it _____.

- A. kills the pest that attacks crops
- B. destroys some of the major crops
- C. adds nitrates to the soil
- D. adds lime to the soil

71. The type of nutrition shown by Spirogyra is _____.

- A. symbiosis
- B. holophytic
- C. holozoic
- D. chemosynthetic

72. The severe deficiency of vitamin C leads to _____.

- A. Kwashiorkor
- B. Beriberi
- C. Pellagra
- D. Scurvy

73. Which of the following statements about water in humans is not correct?

- A. It plays an important role in temperature regulation.
- B. It acts as solvent for substances conveyed around the body.
- C. It plays a role in the formation of vitamin D.
- D. It is needed for many life processes.

74. Which of the following groups consists of only micronutrients?

- A. Molybdenum, sulphur and copper
- B. Boron, zinc and calcium
- C. Manganese, molybdenum and zinc
- D. Magnesium, phosphorus and manganese

75. Overcrowding in seedlings of different species is less serious than overcrowding involving one species because different species may _____.

- A. have different nutritional needs
- B. lack the same nutrient
- C. be active at the same time
- D. have similar tolerance

76. The pancreatic duct opens into the _____.

- A. caecum
- B. colon
- C. ileum
- D. duodenum

77. Aquatic green plants obtain carbon (iv) oxide from dissolved _____ in water.

- A. air
- B. chemicals

- C. solids
- D. none of the above

78. In a yam plant, where is the food stored?

- A. Stem
- B. Bud
- C. Adventitious roots
- D. Leaves

79. Which of the following is not a step involved in light reaction of photosynthesis?

- A. Photolysis of water
- B. Transfer of hydrogen by NADP
- C. ATP formation
- D. ADP formation

80. Which of the following organisms is a chemoautotroph?

- A. Virus
- B. Bacteria
- C. Paramecium
- D. Euglena

81. Which of the following elements is required in large amounts by plants?

- A. Molybdenum
- B. Boron
- C. Copper
- D. Phosphorus

82. Which of the following substances has the highest amount of energy in joules per unit weight?

- A. Carbohydrates
- B. Proteins
- C. Fats
- D. Vitamins

83. Cretinism is caused by the deficiency of _____.

- A. adrenaline
- B. vitamin A
- C. insulin
- D. thyroxine

84. The chloroplast in Spirogyra is spiral in shape while in Zygnema, it is _____ shaped.

- A. square
- B. disc
- C. star
- D. round

85. Which of these is the terminal portion of the alimentary canal of a mammal?

- A. Oesophagus
- B. Stomach
- C. Rectum
- D. Colon

86. The part of the digestive system of a bird where grinding of maize occurs is the _____.

- A. crop

- B. stomach
- C. gizzard
- D. cloacae

87. In an experiment to test for photosynthesis, why is the green leaf tested for starch and not glucose?

- A. The glucose is used up immediately to provide energy for the needs of the leaf.
- B. The glucose formed is converted to starch.
- C. Starch is stored only in leaves.
- D. There are no chemicals for glucose test for leaves.

ANSWERS

TOPIC: ANIMAL NUTRITION

DIRECTION: Choose the correct answer from the lettered options.

1. Animal nutrition involves the study of _____.

- A. animal husbandry
- B. farm equipment and farm produce
- C. food substances and digestive enzymes
- D. the teeth and chewing and biting patterns

The Correct Answer is option [C].

2. The term ecosystem refers to _____.

- A. different groups of green plants in a habitat
- B. the relationship between animals and plants in a given environment
- C. living organisms interacting with the physical environment
- D. members of particular plants and animals living in a habitat

The correct answer is option [C].

3. The most effective method of dealing with non-biodegradable pollutants is by _____.

- A. dumping
- B. recycling
- C. incineration
- D. burying

The correct answer is option [B]

4 Which of the following is not a factor responsible for population sizes?

- A. Nativity
- B. Feeding

C. Immigration

D. Mortality

The correct answer is option [B].

5. Which of these organisms is both holozoic and autotrophic?

A. Spirogyra

B. Paramecium

C. Euglena

D. Amoeba

The correct answer is option [C]

Euglena shows both animal and plant features.

6. Euglena may be classified as a plant because it ____.

A. has chloroplasts

B. has a gullet

C. lives in a pond

D. possesses a flagellum

The correct answer is option [A]

7. The following agencies are responsible for conservation in Nigeria except _____.

A. Forestry Departments

B. Nigerian Conservation Society

C. Games Reserve Authority

D. Red Cross Society

The correct answer is option [D]

8. Which of the following effects would desertification have on the ecological balance represented in the diagram?



- A. 10×10^4 K cal obtained from the sun would decrease.
- B. 10×10^4 K cal obtained from the sun would increase.
- C. 6×10^4 K cal obtained at level I would decrease.
- D. 3.5×10^4 K cal obtained at level II would increase.

The correct answer is option [C]

Desertification would result in a reduction in the grass population; thus the energy obtained at the trophic level I would decrease.

9. Sucrose is found in _____.

- A. coconut water
- B. sugar cane
- C. malted beans
- D. beef

The Correct Answer is option [B].

10. One of the ecological conditions which favors the spread of malaria is _____.

- A. proper disposal of decaying organic matter
- B. cleaning bushes around houses
- C. presence of water weeds
- D. presence of stagnant water

The correct answer is option [D]

11. A habitat with low rainfall, very low humidity, and exposed soil with little plant cover, few trees and shrubs is likely to be ____.

- A. a rain forest
- B. a mangrove forest
- C. a desert
- D. a swamp

The correct answer is option [C]

12. Which of the following is not correct about a living cell?

- A. The basic unit of a living organism is the cell.
- B. All living organisms are either single or groups of cell(s).
- C. All the cells in an organism are the same.
- D. There is no life apart from the life in cells.

The correct answer is option [C]

13. Which of the following is an organelle directly involved in cell division in animals?

- A. Cytoplasm
- B. Centrioles
- C. Mitochondria
- D. Cell wall

The correct answer is option [B].

Look at the diagram carefully and answer the question correctly.

14. What is the name of the part labelled 1?



- A. Eye
- B. Nostrils
- C. Gills
- D. Mouth

The correct Answer is option [A].

15. The ____ is vestigial in humans but functional in other mammals.

- A. liver
- B. appendix
- C. rectum
- D. stomach

The correct answer is option [B]

16. Which of these plant kingdoms have roots, stems or leaves?

- A. Spermatophyte
- B. Pteridophyta
- C. Schizophyta
- D. Thallophytic

The correct answer is option [D]

17. _____ are also classified as seed-bearing flowering plants.

- A. Spermatophytes
- B. Schizophyta
- C. Thallophyta
- D. Bryophyta

The correct answer is option [A]

18. The following are examples of schizophyta except _____.

- A. bacteria
- B. viruses
- C. nostoc
- D. lichens

The correct answer is option [D]

19. During combustion, carbon is oxidized to _____.

- A. carbon (iv) oxide
- B. trioxocarbonate iv
- C. oxygen
- D. nitrogen

The correct answer is option [A].

20. Possession of strong adhesives is a feature of animals living in _____.

- A. sandy beaches
- B. rocky shores
- C. benthic zones
- D. deserts

The correct answer is option [C]

21. _____ is an organic catalyst that promotes or speeds up chemical changes in living cells.

- A. A promoter
- B. A chemical
- C. An enzyme
- D. A parasite

The Correct Answer is option [C].

22. Lack of ____ in the body causes pellagra.

- A. iodine
- B. vitamin C
- C. protein
- D. niacin

The correct answer is option [D].

Niacin is also known as vitamin B3

23. The following are various modes of nutrition in heterotrophic organisms except _____ mode of nutrition.

- A. parasitic
- B. halophytic
- C. saprophytic
- D. symbiotic

The Correct Answer is option [B].

24. What is condensation?

- A. It is the combustion of molecules.
- B. It is the change of the physical state of matter from gaseous phase into liquid phase.
- C. It is the condensation of molecules from scanty form to a more confined form.
- D. It is the use of sieve to filter rough substances away from smooth substances.

The Correct Answer is option [B].

25. All kinds of food eaten by animals can be divided into _____ groups of food substances.

- A. eight
- B. ten
- C. two

D. six

The Correct Answer is option [D].

26. _____ consist of indigestible fibrous materials derived from vegetables, fruits and proteins.

A. Roughages

B. Roughts

C. Roughton

D. Rough

The Correct Answer is option [A].

27. Which of the following is not a test for protein?

A. Million's test

B. Biuret's test

C. Benedict's test

D. Xanthoproteic test

The correct answer is option [C].

Benedict's test is used to test for the presence of all monosaccharides.

28. _____ is a mode of nutrition where certain bacteria are able to manufacture their food as they synthesise organic compounds from simple inorganic materials.

A. Endoparasitic mode

B. Ectoparasitic mode

C. Chemosynthetic mode

D. Parasitic mode

The Correct Answer is option [C].

29. The product of the action of erepsin on peptone is _____.

- A. maltose
- B. glycerol
- C. amino acid
- D. glucose

The correct answer is option [C].

30. How do you test for carbohydrate?

- A. Mix equal amount of glucose and Fehling's solution in a test tube and place it in a boiling water bath.
- B. Mix equal amount of sugar and Benedict's solution in a test tube and pour it in a boiling water.
- C. Mix sucrose and Fehling's solution and put it in the fridge.
- D. Mix carbohydrates and water and put it in fridge.

The Correct Answer is option [A].

31. Foods that largely contain _____ are energy giving foods.

- A. carbohydrates
- B. water
- C. protein
- D. mineral salts

The correct answer is option [A].

32. It is important to eat balanced diet in order to _____.

- A. stay healthy
- B. sleep well
- C. work hard
- D. grow tall

The correct answer is option [A].

33. What is a balanced diet?

- A. It is a diet that contains the correct proportions of proteins and carbohydrates.
- B. It is a diet that contains the right amount of all six classes of food substances.
- C. It is a diet that contains mineral salts, proteins, carbohydrates and fibres in their appropriate amount.
- D. They contain majorly carbohydrate food substance.

The Correct Answer is option [B].

34. Which of the following is not a characteristic of enzymes?

- A. They are soluble.
- B. They are protein.
- C. They are lipids.
- D. They are specific.

The Correct Answer is option [C].

35. Which of the following is not a B vitamin?

- A. Niacin
- B. Riboflavin
- C. Thiamine
- D. Calciferol

The correct answer is option [D].

Calciferol is vitamin D. List of B vitamins

Vitamin B1 (thiamine)

Vitamin B2 (riboflavin)

Vitamin B3 (niacin, includes nicotinic acid and nicotinamide)

Vitamin B5 (pantothenic acid)

Vitamin B6 (pyridoxine, pyridoxal, and pyridoxamine)

Vitamin B7 (biotin), also known as vitamin H

Vitamin B9 (folic acid), also, vitamin M

Vitamin B12 (various cobalamins; commonly cyanocobalamin in vitamin supplements)

36. Which of the following is not an example of a monosaccharide?

- A. Glucose
- B. Lactose
- C. Fructose
- D. Ribose

The correct answer is option [B].

37. Starch can be gotten from all of the following except _____.

- A. potato
- B. tapioca
- C. millet
- D. peas

The correct answer is option [D].

Peas is a source of protein

38. Omnivorous animals feed on both _____ and _____.

- A. fresh, live animals
- B. plants, leaves
- C. plants, animals
- D. milk, animals

The Correct Answer is option [C].

39. What are the components of carbohydrate?

- A. Protein, carbon and oxygen

- B. Carbon, hydrogen and oxygen
- C. Minerals, salt and fibre
- D. Carbondioxide, oxygen and vitamins

The Correct Answer is option [B].

40. Mucus is composed of ____.

- A. protein, carbohydrate and sulphur
- B. salt and fibre
- C. fibre and carbohydrate
- D. muchin, cells, water and inorganic salts

The Correct Answer is option [D].

41. Monosaccharide's, disaccharides and polysaccharides are classifications of _____.

- A. mineral salts
- B. protein
- C. fats and oils
- D. carbohydrates

The correct answer is option [D].

42. Water forms about ____ of man's body.

- A. 75%
- B. 85%
- C. 50%
- D. 65%

The Correct Answer is option [A].

43. Sucrose is found in _____.

- A. coconut water
- B. sugar cane
- C. malted beans
- D. beef

The Correct Answer is option [B].

44. The condensation of two simple sugar molecules form a _____.

- A. complex sugar
- B. complicated sugar
- C. combusted sugar
- D. contaminated sugar

The Correct Answer is option [A].

45. Ptyalin is an enzyme that acts on _____.

- A. protein
- B. fats and oils
- C. cooked starch
- D. peptones

The correct answer is option [C].

46. What colour will a boiled starch solution turn into when a few drops of iodine solution is added to it?

- A. Red
- B. Black pure
- C. Blue-black
- D. Reddish

The Correct Answer is option [C].

47. How do you test for oil and fat?

- A. By dropping oil on a spot on a filter paper; the drop becomes more translucent.
- B. By mixing oil in water and allowing it to settle down; subsequently draining off the fluid that settles at the bottom.
- C. By spraying oil on the ground; observing whether it attracts flies or ants.
- D. By eating fat; calculating to see how long it will take it to digest.

The Correct Answer is option [A].

48. The animals which prepare their food on their own are called ____.

- A. heterotrophs
- B. autotrophs
- C. manual
- D. heterophy

The Correct Answer is option [B].

49. Which of the following does not take part in the formation of teeth and bone?

- A. Calcium
- B. Potassium
- C. Phosphorus
- D. Fluorine

The correct answer is option [B].

It is for the functioning of the muscles and for the transmission of nerve impulses.

50. Which of the following nutrients is known as welfare nutrient?

- A. Mineral salts and vitamins
- B. Proteins and fats
- C. Fibre and fats
- D. Salts and fibre

The Correct Answer is option [A].

51. Excess carbohydrate in human is converted to _____.

- A. sugar
- B. protein
- C. fat
- D. vitamin

The correct answer is option [C].

TOPIC: BASIC ECOLOGICAL CONCEPTS

DIRECTION: Choose the correct answer from the lettered options.

1. Possession of strong adhesives is a feature of animals living in _____.

- A. sandy beaches
- B. rocky shores
- C. benthic zones
- D. deserts

The correct answer is option [C]

2. Water loss is most rapid in _____ soil.

- A. sandy
- B. clayey
- C. sandy-loam
- D. loamy

The correct answer is option [A]

Sandy soil has large coarse particles with very little humus. Hence it is well aerated but water drains through it quickly leaving it dry.

3. An acidic soil can be improved upon by _____.

- A. sedimentation
- B. leaching
- C. flocculation
- D. watering

The correct answer is option [C]

In an acidic soil, the mineral salts are very soluble and easily leached from top soil, out of the reach of plant roots. However, flocculation clumps soil particles together, thereby retaining its nutrient

4. Which of the following resources is non-renewable?

- A. Forest
- B. Wildlife
- C. Mineral deposits
- D. Water

The correct answer is option [C]

5. The similarity among organisms belonging to the same group will be least within each _____.

- A. family
- B. order
- C. kingdom
- D. species

The correct answer is option [C].

The kingdom is the highest level in the hierarchy of living things. As the levels proceed to lower levels, the variety of organism's decreases.

6. An environment could be defined as the _____.

- A. solid crust of the earth
- B. part of the earth in which life exist
- C. surrounding of an organism
- D. First and lowest layer closest to the soil

The correct answer is option [C].

7. Energy exists in _____ major forms.

- A. 3
- B. 2
- C. 4

D. 5

The correct answer is option [B].

Energy is found in different forms, such as light, heat, sound, electrical, mechanical, motion etc. There are many forms of energy, but they can all be put into two categories: kinetic and potential

8. A bacteria cell differs from eukaryotic cell because they have _____.

- A. cell wall
- B. nuclear membrane
- C. nuclear material
- D. cell membrane

The correct answer is option [B]

9. Desert plants are usually called _____.

- A. hydrophytes
- B. mesophytes
- C. xerophytes
- D. saprophytes

The correct answer is option [C]

10. Transpiration in plants results in the _____.

- A. closure of the stomata at night
- B. continuous streaming of water through the plant
- C. pale, green colouration of portions of the leaves
- D. opening of stoma

The correct answer is option [B]

Water loss and photosynthesis increases osmotic pressure in the leaf; causing more water to flow into the leaf cells from the xylem vessels. This sets up a transpiration 'pull' that enables the distribution of water and dissolved minerals throughout the plant.

11. What is ecology?

- A. It is the study of plants and animals in relation to their environment.
- B. It is the study of the human digestive system in relation to the environment.
- C. It is the study of plants.
- D. It is the study of plants and animal harvesting.

The correct Answer is option [A].

12. The abiotic factor which determines the depth to which light penetrates into a pond is _____.

- A. current
- B. turbidity
- C. wind
- D. salinity

The correct answer is option [B]

13. Which of the following effects would desertification have on the ecological balance represented in the diagram?



- A. 10×10^4 K cal obtained from the sun would decrease.
- B. 10×10^4 K cal obtained from the sun would increase.
- C. 6×10^4 K Cal obtained at level I would decrease.
- D. 3.5×10^4 K Cal obtained at level II would increase.

The correct answer is option [C]

Desertification would result in a reduction in the grass population; thus the energy obtained at the trophic level I would decrease.

14. A secchi disc is used in the determination of ____.

- A. rainfall
- B. tides
- C. waves
- D. turbidity

The correct answer is option [D]

15. Due to food shortage, the following are factors that cause decrease in the population size except _____.

- A. natality
- B. competition
- C. emigration
- D. mortality

The correct answer is option [A]

16. A bacteria cell differs from eukaryotic cell because they have _____.

- A. cell wall
- B. nuclear membrane
- C. nuclear material
- D. cell membrane

The correct answer is option [B]

17. Which of the following organisms causes syphilis?

- A. Mycobacterium tuberculosis
- B. Bordetella pertussis
- C. Treponema pallidum
- D. Clostridium tetani

The correct answer is option [C]

18. The earth's major source of energy is the _____.

- A. stars
- B. sun
- C. moon
- D. heat

The correct answer is option [B].

19. Which of these diseases is not caused by bacteria _____.

- A. malaria
- B. tuberculosis
- C. pneumonia
- D. tetanus

The correct answer is option [A]

Malaria is caused by the protozoa, Plasmodium sp.

20. Possession of strong adhesives is a feature of animals living in _____.

- A. sandy beaches
- B. rocky shores
- C. benthic zones
- D. deserts

The correct answer is option [C]

21. There are ____ types of ecological pyramids.

- A. 4
- B. 5
- C. 3
- D. 2

The correct answer is option [C].

The three (3) types of ecological pyramids are; pyramid of numbers, pyramid of biomass and pyramid of energy

22. An association between the root nodules of a leguminous plant and rhizobium species, is known as _____.

- A. commensalisms
- B. saprophytism
- C. parasitism
- D. symbiosis

The correct answer is option [D]

23. The word ecology is derived from the word ____.

- A. oikas
- B. oekis
- C. oikos
- D. aikis

The correct Answer is option [C].

24. _____ is a plant which grows on another plant without apparent harm to the host plant.

- A. A parasite
- B. An epiphyte
- C. A saprophyte
- D. A predator

The correct answer is option [B]

25. The conservation of natural resources can be achieved by the following except through _____.

- A. creation of national parks

- B. formation of conservation societies and agencies
- C. establishment of game reserves
- D. regular deforestation

The correct answer is option [D]

26. The presence of prop roots and breathing roots are features of plants found in the _____.

- A. tropical rain forest
- B. fresh water swamp forest
- C. mangrove forest
- D. northern guinea savannah

The correct answer is option [C]

Mangrove forests are characterized by shallow, brackish water or wet soil, thus prop roots and breathing roots are essential for plants to grow.

27. _____ has the highest water-retaining capacity.

- A. Clay
- B. Laterite
- C. Loam
- D. Gravel

The correct answer is option [A]

The small size of clay particles provides a larger surface area which promotes water retention.

28. Which of the following insects has an incomplete metamorphosis during its life cycle?

- A. Butterfly
- B. Mosquito
- C. Housefly

D. Grasshopper

The correct answer is option [D]

29. Which one of the following diseases can be prevented by inoculation?

A. Syphilis

B. Cancer of the liver

C. Tuberculosis

D. Acquired Immune Deficiency Syndrome (AIDS)

The correct answer is option [C]

30. A group of interacting populations in a particular habitat is referred to as _____.

A. ecological niche

B. biotic community

C. population

D. habitat

The correct answer is option [B].

31. A stable self-sustaining environment produced by an interaction between the biotic and abiotic components is best described as _____.

A. a niche

B. a community

C. an ecosystem

D. a habitat

The correct answer is option [C]

32. A constituent of the exhaust gases of motor vehicles which causes serious air pollution is ____.

A. water vapour

- B. carbon monoxide
- C. oxygen
- D. ozone

The correct answer is option [B]

33. Which of the following is the least adaptive feature for arboreal life?

- A. Possession of four limbs
- B. Possession of claws
- C. Development of a long tail
- D. Counter shading of coat colour

The correct answer is option [D]

34. In a food chain, each stage in the chain is a _____.

- A. chain level
- B. web level
- C. consumption level
- D. trophic level

The correct answer is option [D]

35. _____ zone is not one of the major ecological zones of a marine habitat.

- A. Splash
- B. Wave
- C. Benthic
- D. Intertidal

The correct answer is option [B].

36. The amount of energy contained in different types of food is expressed in _____.

- A. joules
- B. kilogrammes
- C. kilojoules
- D. grammes

The correct answer is option [C].

37. Which of the following will have the least effect on the rate of change of the number of species in a population?

- A. Food supply
- B. Mutation
- C. Predation
- D. Disease

The correct answer is option [B]

38. Which of the following ecological factors causes food shortage?

- A. Low rate of reproduction
- B. Emigration
- C. Drought
- D. Topography

The correct answer is option [C]

39. Which of the following does not reduce air pollution?

- A. Siting factories and power stations away from residential areas.
- B. Recycling tins, cans and bottles.
- C. Passing waste gasses through filters and absorbers.
- D. Using lead-free petrol in cars.

The correct answer is option [B]

Recycling tins, cans and bottles provides a form of land pollution control and conservation.

40. Terrestrial organisms, which are capable of keeping their body temperature constant within fairly close limits, are referred to as _____.

- A. thermoclines
- B. homotherms
- C. poikilotherms
- D. eurytherms

The correct answer is option [B]

41. The non-living part of an ecosystem is known as its _____.

- A. biotic component
- B. trophic level
- C. abiotic component
- D. biomes

The correct answer is option [C]

42. Which of the following is not a type of pyramid?

- A. Pyramid of numbers
- B. Pyramid of energy
- C. Pyramid of biomass
- D. Pyramid of food web

The correct answer is option [D].

43. Which one of the following is not a fresh water habitat?

- A. Ponds

- B. Rivers
- C. Lakes
- D. Seas

The correct answer is option [D].

44. Competition among individuals of a population decreases the _____.

- A. number of organisms
- B. survival of the fittest
- C. availability of nutrient supplied
- D. enlargement of the territory

The correct answer is option [C]

45. Sewage must be properly disposed to _____.

- A. avoid the smell that causes infection in people
- B. spread gastro-intestinal diseases
- C. prevent the out-break of water-borne diseases
- D. create space for subsequent waste produced

The correct answer is option [C]

46. The condition that encourages denitrification is _____.

- A. low soil oxygen
- B. high soil nitrogen
- C. absence of soil bacteria
- D. lightning and thunderstorm

The correct answer is option [B]

47. Which of the following major world biomes is found in Nigeria?

- A. Sahel savanna

- B. Tundra
- C. Desert
- D. Afro-alpine vegetation

The correct answer is option [A]

48. The loss of water vapour through the aerial parts of the plant to the atmosphere is called ____.

- A. respiration
- B. guttation
- C. osmoregulation
- D. transpiration

The correct answer is option [D]

49. Autecology is concerned with the study of _____.

- A. a group of organisms and their environment
- B. a single organism and its activities in different environment
- C. an individual organism and its environment
- D. multicellular organisms and their interaction with one another

The correct Answer is option [C].

50. Fishes cannot survive on land because they have _____.

- A. bodies covered with scales
- B. streamlined bodies
- C. no lungs
- D. no walking appendages

The correct answer is option [C]

51. Bacteria and _____ are commonly responsible for the decay of dead plants and animals.

- A. viruses
- B. fungi
- C. earthworms
- D. yeasts

The correct answer is option [B].

52. Which of the ways of controlling bilharzias can result in pollution?

- A. Clearing water weeds on which the snails feed.
- B. Treating infected people with drugs.
- C. Preventing contamination of water by infected urine and faeces.
- D. Applying chemicals to kill them.

The correct answer is option [D]

53. The abiotic factor which determines the depth to which light penetrates into a pond is _____.

- A. current
- B. turbidity
- C. wind
- D. salinity

The correct answer is option [B]

54. _____ is associated with aquatic habitats.

- A. Temperature
- B. Light intensity
- C. Turbidity
- D. All of the above

The correct answer is option [D].

55. One distinctive feature in the life cycle of ulva is that they exhibit ____.

- A. alternation of generations
- B. vegetative reproduction
- C. asexual reproduction
- D. sexual reproduction

The correct answer is option [A]

Complex alga like ulva plant are made up of two independent, dominant plants: the gametophyte and the sporophyte. This is described as alternation of generation.

56. Which group is involved in the water cycle?

- A. Evaporation, transpiration and precipitation
- B. Evaporation, photosynthesis and transpiration
- C. Evaporation, burning and precipitation
- D. Evaporation, volcanic action and transpiration

The correct answer is option [A]

57. Pneumatophores are essential for _____.

- A. nutrition
- B. movement
- C. breathing
- D. growth

The correct answer is option [C]

Pneumatophores are erect roots that extend from the underground root system. During the day, they enable the root system obtain oxygen.

58. Which of the following is not a behavioral adaptation used by social animals?

- A. Hibernation
- B. Mimicry

- C. Migration
- D. Aestivation

The correct answer is option [B]

Mimicry is a form of adaptive colouration.

59. Which one of the following options is the most important pollutant of the marine environment in Nigeria?

- A. Insecticides
- B. Sewage
- C. Oil spill
- D. Inorganic fertilizers

The correct answer is option [C]

60. The _____ law of thermodynamics states that in any conversion of energy from one form to another, there is always a decrease in the amount of useful energy.

- A. second
- B. first
- C. Third
- D. fourth

The correct answer is option [A].

61. The study of the organisms and environment of an abandoned farmland is the ecology of _____.

- A. an ecosystem
- B. a population
- C. a species
- D. a habitat

The correct answer is option [A]

62. Water loss is most rapid in _____ soil.

- A. sandy
- B. clayey
- C. sandy-loam
- D. loamy

The correct answer is option [A]

Sandy soil has large coarse particles with very little humus. Hence it is well aerated but water drains through it quickly leaving it dry.

63. The gas produced during decomposition of matter is _____.

- A. hydrogen sulphide
- B. carbon monoxide
- C. chlorine
- D. oxygen

The correct answer is option [A]

64. Which sequence represents the correct order of organisms in a food chain?

- A. Toad
- B. Mucuna
- C. Grasshopper
- D. Snake

The correct answer is option [B]

65. Energy exists in _____ major forms.

- A. 3
- B. 2
- C. 4
- D. 5

The correct answer is option [B].

Energy is found in different forms, such as light, heat, sound, electrical, mechanical, motion etc. There are many forms of energy, but they can all be put into two categories: kinetic and potential.

66. Which of these instruments can be used to perform an experiment on geotropism?

- A. Potentiometer
- B. Cup anemometer
- C. Klinostat
- D. Kymograph

The correct answer is option [C]

67. Desert plants are usually called _____.

- A. hydrophytes
- B. mesophytes
- C. xerophytes
- D. saprophytes

The correct answer is option [C]

68. Micro-organisms are used in the production of _____.

- A. fossil fuels
- B. culture media
- C. antibiotics
- D. minerals

The correct answer is option [C]

69. Which of the following is not an example of a free living nitrogen bacteria?

- A. Azotobacter

- B. Clostridium
- C. Nostoc
- D. Nitrosomonas

The correct answer is option [D].

70. Forest conservation includes the following except _____.

- A. prevention of bush-fires
- B. extensive felling of forest-trees
- C. replacing harvested trees by planting seedling
- D. selective exploitation of forest trees

The correct answer is option [B]

71. Which of the following factors is not associated with aquatic habitats?

- A. Salinity
- B. Turbidity
- C. Temperature
- D. Edaphic

The correct answer is option [D]

72. _____ energy is derived from chemical energy during cellular respiration.

- A. Heat
- B. Sound
- C. Electrical
- D. Mechanical

The correct answer is option [A].

73. Which of the following is an effect of water pollution?

- A. Hepatitis

- B. Cancer
- C. Tuberculosis
- D. AIDS

The correct answer is option [A].

74. Which one of the following is not a major component of fertilizer?

- A. Nitrogen
- B. Phosphorus
- C. Magnesium
- D. Potassium

The correct answer is option [C].

75. Which one of the following gases is not produced by automobiles?

- A. Nitrogen monoxide
- B. Nitrogen dioxide
- C. Nitric acid
- D. Carbon dioxide

The correct answer is option [C].

76. The most effective method of dealing with non-biodegradable pollutants is by _____.

- A. dumping
- B. recycling
- C. incineration
- D. burying

The correct answer is option [B]

78. _____ is often described as environmental biology.

- A. Ecosystem
- B. Ecology
- C. Ecological
- D. Ecologist

The correct Answer is option [B].

79. In a savanna ecosystem, the abiotic factors include _____.

- A. sun, temperature and sandy soil
- B. water, temperature and soil
- C. minerals, oxygen and crude
- D. water, soil and grasses

The correct answer is option [B]

80. In a food chain, each succeeding level in a forward direction represents _____.

- A. an increase in the number of individuals
- B. a decrease in the number of individuals
- C. an increase in the biomass of individuals
- D. a gain in the total energy being transferred

The correct answer is option [B]

81. Which of the following instrument is used to measure the speed of a stream?

- A. Simple float
- B. Secchi disc
- C. Quadrant frame
- D. Rain gauge

The correct answer is option [A]

82. All the available places on earth which support life constitute the _____.

- A. lithosphere
- B. atmosphere
- C. biosphere
- D. hydrosphere

The correct answer is option [C]

83. Transparency of water is measured using a _____.

- A. secchi disc
- B. whirling hygrometer
- C. hydrometer
- D. wind vane

The correct answer is option [A].

84. Which of these has the most complex level of organization?

- A. Euglena
- B. Hydra
- C. Heart
- D. Virus

The correct answer is option [C]

85. Which of the following is used for the collection of small insects from soil, leaf litter and crevices?

- A. Pooter
- B. Quadrant
- C. Sweep net
- D. Drag net

The correct answer is option [A]

86. Denitrification is defined as the process of _____.

- A. breakdown of nitrogen in the atmosphere
- B. addition of nitrogen to the soil
- C. returning nitrogen into the atmosphere
- D. removal of nitrogen from the atmosphere

The correct answer is option [C]

87. The most important environmental factor which epiphytes in the rain forest compete for is _____.

- A. water
- B. nutrient
- C. light
- D. space

The correct answer is option [B]

88. Which of the following instruments is not used in measuring abiotic factors in any habitat?

- A. Microscope
- B. Thermometer
- C. Hygrometer
- D. Wind vane

The correct answer is option [A]

89. In an ecosystem the organism which changes light energy into stored chemical energy is the _____.

- A. consumer
- B. decomposer
- C. producer
- D. carnivore

The correct answer is option [C]

90. Which of the following accurately represents an aquatic food chain?

- A. Paramecium -- phytoplankton -- prawn -- water flea -- tilapia -- shark.
- B. Water flea -- Paramecium -- phytoplankton -- prawn -- tilapia -- shark.
- C. Phytoplankton -- water flea -- Paramecium -- prawn -- shark -- tilapia.
- D. Phytoplankton -- Paramecium -- water flea -- prawn -- tilapia -- shark.

The correct answer is option [D]

91. Rabbits cannot survive in an aquatic habitat because they have_____.

- A. fore-and hind-limbs
- B. no gills
- C. no eye spot
- D. no scales

The correct answer is option [B]

92. Which of the following resources is non-renewable?

- A. Forest
- B. Wildlife
- C. Mineral deposits
- D. Water

The correct answer is option [C]

93. An acidic soil can be improved upon by _____.

- A. sedimentation
- B. leaching
- C. flocculation
- D. watering

The correct answer is option [C]

In an acidic soil, the mineral salts are very soluble and easily leached from top soil, out of the reach of plant roots. However, flocculation clumps soil particles together, thereby retaining its nutrients.

94. The change of colour by a chameleon to that of the environment is an example of _____.

- A. animal pretense
- B. protective colouration
- C. mimicry
- D. warning colouration

The correct answer is option [B]

Protective colouration, also known as concealing colouration helps an animal escape predation.

95. During combustion, carbon is oxidized to _____.

- A. carbon (iv) oxide
- B. trioxocarbonate iv
- C. oxygen
- D. nitrogen

The correct answer is option [A].

96. Abiotic components include all except _____.

- A. fish
- B. water
- C. heat
- D. pressure

The correct answer is option [A].

In biology, abiotic components are non-living chemical and physical factors in the environment such as faeces, urine (and of course carbon dioxide, oxygen, and water from respiration)

97. The major functional unit of an ecosystem is the _____.

- A. total energy flowing through the ecosystem

- B. population
- C. productivity
- D. trophic level

The correct answer is option [B].

98. A _____ represents changes in energy flow between organisms in a habitat.

- A. pyramid of biomass
- B. pyramid of numbers
- C. pyramid of energy
- D. food chain

The correct answer is option [C]

99. The gaseous chemicals used as coolants in air conditioners and refrigerators is known as _____.

- A. chlorofluorocarbons
- B. chlorofluorocarbons
- C. fluorocarbons
- D. chlorocarbons

The correct answer is option [A].

100. Ecological succession ends with the formation of a stable _____.

- A. niche
- B. population
- C. pioneer community
- D. climax community

The correct answer is option [D]

101. Which of the following processes will not introduce carbon dioxide into the atmosphere?

- A. Breathing
- B. Photosynthesis
- C. Respiration
- D. Putrefaction

The correct answer is option [B]

102. Which of the following statements best explains the term aestivation?

- A behavioural pattern of animals involving spending the hot dry season in a sleep-like, torpid state.
- B. A behavioural pattern of animals involving long journeys from one place to another.
- C. A behavioural pattern of animals involving spending the winter in a sleep-like, inactive, torpid state.
- D. A behavioural pattern of animals involving scaring off predators.

The correct answer is option [A]

103. A habitat with low rainfall, very low humidity, and exposed soil with little plant cover, few trees and shrubs is likely to be _____.

- A. a rain forest
- B. a mangrove forest
- C. a desert
- D. a swamp

The correct answer is option [C]

104. A population is best described as _____.

- A. a group of the same species of organisms living together
- B. a group of animals and plants living together
- C. a group of insect and grasses

D. different species of wild animals

The correct answer is option [A]

105. Which of the following is not a way of reducing air pollution?

A. Siting factories and power stations away from residential areas

B. Recycling tins, cans and bottles

C. Passing waste gases through filters and absorbers

D. Using lead-free petrol in cars

The correct answer is option [B]

106. The following are carbon cycling processes except _____.

A. combustion

B. decay

C. transpiration

D. respiration

The correct answer is option [C]

Transpiration, which is the loss of water from the leaf surface of plants, is a water cycling process.

107. _____ is the study of interactions of organisms with their physical environment and with each other.

A. Ecology

B. Biosphere

C. Lithosphere

D. Atmosphere

The correct answer is option [A].

108. Northern guinea savanna is associated with _____.

- A. abundant rainfall
- B. abundant trees and shrubs
- C. soil with very little plant cover
- D. abundant grasses

The correct answer is option [D]

109. Which of the following helps a hydrophyte such as the water lily solve the problem of buoyancy?

- A. Long stems and flower stalks
- B. Dissected leaves
- C. Thick cuticles
- D. Large, well-developed airspaces

The correct answer is option [D]

110. The following conditions form the basis of competition in a habitat except _____.

- A. food
- B. body structure
- C. reproductive mate
- D. light

The correct answer is option [B]

111. What is ecology?

- A. It is the study of plants and animals in relation to their environment.
- B. It is the study of the human digestive system in relation to the environment.
- C. It is the study of plants.
- D. It is the study of plants and animal harvesting.

The correct Answer is option [A].

112. Which of the following environmental factors is not considered in a terrestrial habitat?

- A. Temperature
- B. Sunlight
- C. Humidity
- D. Turbidity

The correct answer is option [D]

Turbidity is caused by the presence of suspended matter in water; thus this does not apply in a terrestrial habitat.

113. Viruses are pathogens of the following diseases except _____.

- A. measles
- B. smallpox
- C. poliomyelitis
- D. tuberculosis

The correct answer is option [D]

Tuberculosis is caused by *Mycobacterium tuberculosis*.

114. Trees in savannah habitats usually have heavy thick bark which mainly _____.

- A. reduces the rate of transpiration
- B. protect them from the scorching sun
- C. protect them from heavy winds
- D. resist bush fires

The correct answer is option [A]

115. A certain savannah grasshopper changes colour from green during the rainy season; to brown, during the dry season; and black after the dry season bush fires. The reason for these colour changes is that the _____.

- A. grasshopper is getting older
- B. environmental temperature is changing
- C. grasshopper is avoiding predators
- D. is frequently moulting

The correct answer is option [C]

116. Which of the following is transmitted through mosquito bites?

- A. Filariasis
- B. Typhus
- C. Plague
- D. Schistosomiasis

The correct answer is option [A]

Filariasis is transmitted by a wide range of mosquitoes including *Anopheles*, *Culex quinquefasciatus*, *Aedes* and *Mansonia*.

117. The similarity among organisms belonging to the same group will be least within each ____.

- A. family
- B. order
- C. kingdom
- D. species

The correct answer is option [C].

The kingdom is the highest level in the hierarchy of living things. As the levels proceed to lower levels, the variety of organisms' decreases.

118. Which one of the following is not a characteristic of fresh water habitat?

- A. Low salinity
- B. Low oxygen concentration
- C. Limited size and depth

D. Variation in temperature

The correct answer is option [B].

Low oxygen concentration is a characteristic of estuarine habitats

119. Ecology is best defined as the study of _____.

A. the characteristics of living organisms in an environment

B. the inter-relationship between living organisms and their environment

C. the interaction that occurs between the molecules that make up living organisms

D. habitats and wildlife

The correct answer is option [B]

120. Which of the following may not contribute to environmental pollution?

A. Recycled water

B. Industrial waste

C. Waste disposal

D. Smoke

The correct answer is option [A]

121. Which of the following organisms can be found in fresh water habitat?

A. Sargassum and dogfish

B. Red mangrove and pond skater

C. Sargassum and red mangrove

D. Spirogyra and pond skater

The correct answer is option [D]

122. Which of the following spreads malaria in Nigeria?

A. Anopheles mosquito

B. Culex mosquito

C. Tse-tse fly

D. Housefly

The correct answer is option [A]

123. The adaptations for water conservation in plants include the following except _____.

A. scales in fishes

B. scales on leaves

C. thick cuticle

D. spine

The correct answer is option [B]

124. There are _____ types of food chain.

A. 1

B. 3

C. 2

D. 4

The correct answer is option [C].

The two types of food chains are aquatic (water related) and terrestrial (land related)

125. Which of the following takes place when a person's body temperature rises above 37°C?

A. Sweating and vasoconstriction

B. Panting and vasoconstriction

C. Sweating and vasodilation

D. Panting and vasodilation

The correct answer is option [C]

As sweat evaporates, heat from the body is used up, thus cooling the body. While vasodilation causes a large volume of blood to flow near the surface of the skin so that heat is lost to the surroundings via conduction, convection and radiation.

126. Which of the following is not a factor responsible for population sizes?

- A. Natality
- B. Feeding
- C. Immigration
- D. Mortality

The correct answer is option [B].

127. The unidirectional movements of water is called _____.

- A. water current
- B. tides
- C. waves
- D. erosion

The correct answer is option [C].

128. A relationship in which one of the organism benefits while the other neither benefits nor is harmed is known as _____.

- A. co-operation
- B. commensalism
- C. mutualism
- D. saprophytism

The correct answer is option [B].

129. Which one of the following is not an ecological factor to all habitats?

- A. Oxygen
- B. Light
- C. Salt
- D. Wind

The correct answer is option [C].

130. What phenomenon in the ecosystem does the diagram illustrate?



- A. Pyramid of numbers
- B. Food web among organisms
- C. Pyramid of energy
- D. Pyramid of biomass

The correct answer is option [C]

The diagram represents the rate of flow of food energy through each trophic level in the food chain.

TOPIC: CLASSIFICATION OF LIVING THINGS

DIRECTION: Choose the correct answer from the lettered options.

1. Living things compete for all except _____.

- A. offspring
- B. water
- C. space
- D. mate

The correct answer is option [A]

2. Which of the following is incorrect about auxins?

- A. They are manufactured by plants.
- B. They are used at the site of production.
- C. They are normally present in minute quantities in the cells of plants.
- D. They regulate growth rate in plants.

The correct answer is option [B]

3. The exoskeleton of arthropoda is made of _____.

- A. chitin
- B. cartilage
- C. xylem
- D. bones

The correct answer is option [A]

4. Which of the following are types of kingdoms?

- A. Kingdom monera
- B. Kingdom fungi
- C. Kingdom Protista

D. All of the above

The correct answer is option [D]

5. Which is the correct animal classification?

A. Kingdom-Division-Order-Class-Family-Genus-Species

B. Kingdom-Phylum-Class-Order-Family-Genus-Species

C. Kingdom-Division-Class-Order-Family-Genus-Species

D. Kingdom-Phylum-Family-Class-Order-Genus-Species

The correct answer is option [B]

6. All are examples of fungi except _____.

A. Mushroom

B. Rhizopus

C. Mucor

D. Lichens

The correct answer is option [D]

7. _____ provides the basis for growth of organisms.

A. Food

B. Light

C. Water

D. Good environment

The correct answer is option [A]

8. _____ is defined as a systematic process of making enquiry about living and non-living things in our environment.

A. Science

B. Biology

- C. Research
- D. Experiment

The correct answer is option [A]

9. Which of these Platyhelminthes is free living?

- A. Planarian
- B. Tapeworm
- C. Liver fluke
- D. Blood fluke

The correct answer is option [A]

Planarians are free-living and primarily carnivorous.

10. The following are examples of schizophyta except _____.

- A. bacteria
- B. viruses
- C. nostoc
- D. lichens

The correct answer is option [D]

11. How many classes does the plant kingdom, spermatophyte have?

- A. 1
- B. 2
- C. 3
- D. 4

The correct answer is option [B]

Spermatophyte comprises Angiosperms and Gymnosperms.

12. Spiders, mites, scorpions and ticks are examples of _____.

- A. Insecta
- B. Arachnida
- C. Crustaceans
- D. Myriapoda

The correct answer is option [B]

13. The characteristic "irritability" can also be called _____.

- A. irritation
- B. sensation
- C. infection
- D. sensitivity

The correct answer is option [D]

14. Food in plants is stored mainly as _____.

- A. glycogen
- B. fat
- C. fibre
- D. starch

The correct answer is option [D]

15. Biology is basically grouped into how many main branches?

- A. 2
- B. 3
- C. 4
- D. 5

The correct answer is option [A]

16. Biology can simply be defined as the _____.

- A. study of science
- B. study of life
- C. characteristics of life
- D. all of the above

The correct answer is option [B]

17. Which of these organisms is both holozoic and autotrophic?

- A. Spirogyra
- B. Paramecium
- C. Euglena
- D. Amoeba

The correct answer is option [C]

Euglena shows both animal and plant features.

18. A virus can sometimes be regarded as a living organism because it_____.

- A. causes disease in plants and animals
- B. exists in a variety of shapes
- C. reproduces in living cells
- D. is easily visible with the aid of an electron microscope

The correct answer is option [C]

19. Which of these is not a characteristic of animals?

- A. Food is stored mainly as glycogen and fat.
- B. Their cells have large vacuoles.
- C. They possess well developed excretory system.
- D. Their cells have thin flexible living cell membrane.

The correct answer is option [B]

20. The body of arthropoda are divided into _____.

- A. head, stomach and abdomen
- B. head, thorax and abdomen
- C. head, abdomen and leg
- D. front, back and middle

The correct answer is option [B]

21. The system of classification of living things was introduced by _____.

- A. Carolus Linnaeus
- B. Carolus Kent
- C. Richard Van der Hoff
- D. Linus Linnaeus

The correct answer is option [A]

22. Which of these presentations is incorrect?

- A. Homo sapiens
- B. Panthra Leo
- C. Rattus rattus
- D. Zea Mays

The correct answer is option [D]

23. The group Mollusca is characterized by the presence of _____.

- A. jointed appendages
- B. star-shaped bodies
- C. backbones
- D. soft, unsegmented bodies

The correct answer is option [D]

Molluscs have soft unsegmented bodies with a muscular foot which may be adapted for crawling, burrowing or swimming.

24. _____ is the largest phylum in the animal kingdom?

- A. Mollusca
- B. Mammalia
- C. Arthropoda
- D. Protozoa

The correct answer is option [C]

25. Which of the following is not a characteristic of living things?

- A. Nutrition
- B. Movement
- C. Sleeping
- D. Growth

The correct answer is option [C]

26. Science can be applied to all areas of life.

- A. True
- B. False

The correct answer is option [A]

27. In binomial nomenclature, the first name is usually the _____.

- A. kingdomic name
- B. generic name
- C. classic name
- D. specific name

The correct answer is option [B]

28. A theory can be called a law when _____.

- A. a reasonable explanation has been derived for an observation

- B. the hypothesis is true
- C. it has been extensively tested and proven to be true
- D. a hypothesis is repeatedly correct within the limits of available evidence

The correct answer is option [C]

29. Arthropods are divided into _____ classes.

- A. 1
- B. 2
- C. 3
- D. 4

The correct answer is option [D]

30. When does the Euglena carry out holozoic nutrition?

- A. In the absence of sunlight
- B. When the chloroplast is depleted
- C. When its mouth and gullet are not functioning
- D. All of the above

The correct answer is option [A]

31. Which of these is not an example of insecta?

- A. Housefly
- B. Spider
- C. Grasshopper
- D. Butterfly

The correct answer is option [B]

The spider is an arachnid.

32. Which of these has true roots, stems and leaves?

- A. Bryophyta
- B. Thallophyta
- C. Schizophyta
- D. Pteridophyta

The correct answer is option [D]

33. Which of these is not an example of a Protozoa?

- A. Amoeba
- B. Paramecium
- C. Hydra
- D. Trypanosome

The correct answer is option [C]

34. The phylum _____ does not consist of worms?

- A. Platyhelminthes
- B. arthropoda
- C. nematode
- D. Annelida

The correct answer is option [B]

Arthropoda consists of crustaceans, insects, arachnids, and myriapods.

35. All living organisms have the following characteristics except _____.

- A. photosynthesize
- B. respire
- C. move
- D. feed

The correct answer is option [A]

Only organisms that possess chloroplasts, photosynthesis.

36. Division is to plants as _____ is to animals.

- A. kingdom
- B. genera
- C. order
- D. phylum

The correct answer is option [D]

37. Animals move their entire body while plants move _____.

- A. their whole body
- B. their upper body
- C. parts of their body
- D. their lower body

The correct answer is option [C]

38. Which of the scientific names is correct?

- A. Animalia mammalia
- B. Hominidae Felidae
- C. Homo Felidae
- D. Homo sapiens

The correct answer is option [D]

39. In a dicot leaf, guard cells differ from other epidermal cells because they ____.

- A. have no definite shape
- B. lack nuclei
- C. are smaller

D. contain chloroplasts

The correct answer is option [D]

40. What is the difference between viviparous and oviparous animals? The latter_____.

A. give birth to live offspring

B. lay unfertilized eggs

C. protects eggs from predators

D. lay and brood over egg

The correct answer is option [D] Oviparous animals shed their embryo into the environment to complete their development and hatch out as young.

41. _____ are also classified as seed-bearing flowering plants.

A. Spermatophytes

B. Schizophyta

C. Thallophyta

D. Bryophyta

The correct answer is option [A]

42. Which of these is not true about plants?

A. Most plants carry out photosynthesis.

B. They have no fixed number of parts and branching is continuous.

C. Gaseous exchange occurs throughout the entire body.

D. They possess special excretory systems.

The correct answer is option [D]

43. Which of these parts of the Euglena makes it an animal?

A. Pyrenoids

B. Chloroplasts

C. Nucleus

D. Contractile vacuole

The correct answer is option [D]

44. Which of these is not true about animals?

A. Growth is indefinite and apical.

B. They are holozoic feeders.

C. They are active and have organs of movement.

D. They possess specialized sense organs.

The correct answer is option [A]

45. Which of these is not a characteristic of plants?

A. They store food as glycogen.

B. Growth is indefinite and apical.

C. They are not active and have no organ of movement.

D. They possess no special sense organ.

The correct answer is option [A]

46. The function of the clitellum in the earthworm is to _____.

A. aid digestion

B. prevent desiccation

C. assist locomotion

D. secrete cocoon

The correct answer is option [D]

47. The binomial nomenclature is a combination of _____ names.

A. 2

B. 3

C. 4

D. 5

The correct answer is option [A]

48. The following are examples of myriapoda except _____.

A. earthworm

B. centipedes

C. millipedes

D. all of the above

The correct answer is option [A]

The earthworm is an annelid.

49. The fibrous root system is typical to _____.

A. dicots

B. monocots

C. gymnosperms

D. ferns

The correct answer is option [B]

50. Which of the following structures differentiates an animal cell from a plant cell?

A. Ribosome

B. Cell membrane

C. Chloroplast

D. Mitochondrion

The correct answer is option [C]

51. The following make up kingdom Protista except _____.

A. protophyta

- B. protozoa
- C. planktons
- D. none of the above

The correct answer is option [C]

52. The Greek word 'logos' means _____.

- A. life
- B. help
- C. word
- D. study

The correct answer is option [D]

53. _____ is a permanent increase in size and mass of an organism.

- A. Locomotion
- B. Growth
- C. Elongation
- D. Population

The correct answer is option [B]

54. Living things respond to the following stimuli except _____.

- A. touch
- B. smell
- C. sound
- D. music

The correct answer is option [D]

55. When can a concept become a theory?

- A. When the hypothesis is repeatedly correct within the limits of available vidence.

- B. When a theory has been extensively tested and proven to be true.
- C. When a good scientist conducts a research and is able to prove the authenticity of the research result.
- D. All of the above.

The correct answer is option [A]

56. The basic unit of classification of living things is the _____.

- A. kingdom
- B. order
- C. family
- D. species

The correct answer is option [D]

57. Which of the following structures is not found in a female agama lizard?

- A. Nuchal crest
- B. Eardrum
- C. Gular fold
- D. Nasal scale

The correct answer is option [A]

The nuchal crest is a crest on the nape of the neck.

58. Protozoa belongs to the group of organisms called _____.

- A. protista
- B. coelenterate
- C. schizothymes
- D. pseudopodia

The correct answer is option [A]

59. Which of the following is a characteristic of living things?

- A. Movement
- B. Nutrition
- C. Irritability
- D. All of the above

The correct answer is option [D]

60. Which one of the following is the correct plant classification?

- A. KINGDOM-DIVISION-ORDER-CLASS-FAMILY-GENUS-SPECIES
- B. KINGDOM-PHYLUM-CLASS-ORDER-FAMILY-GENUS-SPECIES
- C. KINGDOM-DIVISION-CLASS-ORDER-FAMILY-GENUS-SPECIES
- D. KINGDOM-DIVISION-FAMILY-CLASS-ORDER-GENUS-SPECIES

The correct answer is option [C]

61. All are examples of Annelida except _____.

- A. earthworm
- B. leech
- C. tube worms
- D. tapeworms

The correct answer is option [D]

Tapeworms are in the phylum Platyhelminthes.

62. The major groups of plant kingdom include the following except _____.

- A. tracheophyta
- B. bryophyte
- C. thallophytic
- D. spermatophyte

The correct answer is option [D]

63 In fungi, food is stored as _____.

- A. starch
- B. fat
- C. fibre
- D. glycogen

The correct answer is option [D]

64. Cotyledons refer to the number of _____.

- A. seeds
- B. seed leaves
- C. fruits
- D. roots

The correct answer is option [B]

65. In an angiosperm root, the xylem is _____.

- A. in a separate bundle from the phloem
- B. surrounded by the phloem
- C. above the phloem
- D. around the phloem

The correct answer is option [B]

66. Which of the following belongs to the group nematodes?

- A. Threadworms
- B. Hookworms
- C. Filarial worms
- D. All of the above

The correct answer is option [D]

Nematodes are roundworms with cylindrical bodies.

67. Which of these is not an example of a coelenterata?

- A. Hydra
- B. Trypanosome
- C. Jelly-fish
- D. Coral polyps

The correct answer is option [B]

68. If an animal has scales, teeth, nerves and backbone, then the animal is likely to be a _____.

- A. toad
- B. bird
- C. lizard
- D. rat

The correct answer is option [C]

69. Which is the correct way of writing scientific names?

- (I) Italicizing the names only
- (II) Underlining or italicizing the names
- (III) Writing the first name with the initial letters in capitals and the second name in small letters.

- A. I only
- B. II only
- C. II and III
- D. I and II

The correct answer is option [C]

70. Angiosperms are divided into which of these two classes?

- A. Dicotyledons and Monocotyledons

B. Monocotyledons and Tricotyledons

C. Monocotyledons and Bicotyledons

D. Dicotyledons and Bicotyledons

The correct answer is option [A]

71. In the egg of a bird, the embryo is located in the _____.

A. chalaza

B. yolk

C. albumen

D. embryo disc

The correct answer is option [B]

The yolk provides food (mainly fats and proteins) for the embryo.

72. Animals are divided into two main groups namely _____ and _____.

A. humans and animals

B. mammals and primates

C. vertebrates and invertebrates

D. unicellular and multicellular

The correct answer is option [C]

73. Both algae and mosses contain _____.

A. chlorophyll

B. stem

C. leaves

D. roots

The correct answer is option [A]

74. Which of these is not a characteristic of angiosperms?

- A. They are vascular plants.
- B. They have well developed and complete flowers.
- C. They are plants with naked seeds.
- D. They are mainly terrestrial plants.

The correct answer is option [C] Angiosperms bear seeds which are protected within fruits.

75. In the Binomial Nomenclature, the second name is usually the _____.

- A. kingdomic name
- B. generic name
- C. classic name
- D. specific name

The correct answer is option [D]

76. Peripheral arrangement of vascular tissues in dicots is a characteristic of the internal structure of the _____.

- A. leaf
- B. petiole
- C. stem
- D. root

The correct answer is option [C]

77. _____ is the basic unit of biological classification in which the Organisms interbreed among themselves only.

- A. Species
- B. Family
- C. Genus

D. Order

The correct answer is option [A]

78. The Greek word 'bios' means _____.

A. study

B. help

C. life

D. biology

The correct answer is option [C]

79. What is the mode of nutrition for the mushroom?

A. Parasitic mode of nutrition

B. Saprophytic mode of nutrition

C. Chemotrophic mode of nutrition

D. Symbiotic mode of nutrition

The correct answer is option [B]

80. Which one of the following parts of the Euglena enables it to carry out autotrophic nutrition?

A. Pellicle

B. Myoneme

C. Chloroplast

D. Gullet

The correct answer is option [C]

81. Spirogyra reproduces vegetatively by _____.

A. spore production

B. fragmentation

C. multiple fission

D. budding

The correct answer is option [B]

82. Tapeworm has a simple brain?

A. True

B. False

The correct answer is option [A]

83. Which of these is a mollusc?

A. Octopus

B. Ringworm

C. planarian

D. Liver fluke

The correct answer is option [A]

84. Another name for liver fluke (flatworm) is _____.

A. Schistosoma

B. Fasciola

C. Hydra

D. Trypanosome

The correct answer is option [B]

85. Which of these is an example of Platyhelminthes?

A. Hydra

B. Trypanosome

C. Tapeworm

D. Threadworms

The correct answer is option [C]

The phylum Platyhelminthes consists of flatworms.

86. The stages of life for all living things are _____.

- A. birth -- growth -- reproduction -- decline
- B. birth -- growth -- maturity -- decline -- death
- C. death -- nutrition -- birth -- reproduction
- D. movement -- nutrition -- reproduction -- respiration -- growth

The correct answer is option [B]

87. Which of these has a true body cavity or coelom?

- A. Coelenterate
- B. Protozoa
- C. Platyhelminthes
- D. Annelida

The correct answer is option [D]

88. Which of these has a true body cavity or coelom?

- A. Coelenterate
- B. Protozoa
- C. Platyhelminthes
- D. Annelida

The correct answer is option [D]

89. _____ is an important characteristic of green plants.

- A. Specialized sense organs
- B. Motility
- C. Autotrophic nutrition

D. Rapid response to stimuli

The correct answer is option [C]

90. In order of development, which of these plant kingdoms is the most developed?

A. Pteridophyta

B. Schizophyta

C. Spermatophyte

D. Thallophyta

The correct answer is option [D]

91. Another name for blood fluke is _____.

A. Schistosoma

B. Fasciola

C. planarian

D. Leech

The correct answer is option [A]

92. Which of these is not an algae?

A. Penicillium

B. Chlamydomonas

C. Spirogyra

D. Volvox

The correct answer is option [A]

93. Heterotrophic nutrition is a characteristic of the following organisms' except _____ organisms

A. commensal

B. holophytic

C. mutualistic

D. holozoic

The correct answer is option [B]

Holophytic organisms include all green plants that make their own food.

94. Which one of these organisms can be referred to as both a living and a non-living organism?

A. Man

B. Euglena

C. Paramecium

D. Virus

The correct answer is option [D]

95. A faster colour change of a dry cobalt chloride paper affixed to the lower surface of a leaf than the upper one indicates that _____.

A. sunlight slows down water loss from the upper surface

B. the lower surface of the leaf has more stomata

C. sunlight causes the stomata on the upper surface to close

D. there are no stomata on the upper surface of a leaf

The correct answer is option [B]

96. Everything in the world can be classified into _____ and _____.

A. living things, dead things

B. living things, non-living things

C. animate things, living things

D. inanimate things, non-living things

The correct answer is option [B]

97. The following are examples of thallophytes except _____.

- A. fungi
- B. algae
- C. lichens
- D. bacteria

The correct answer is option [D]

98. In the order of classification of living things, which one of these is the first?

- A. Phyla
- B. Kingdom
- C. Divisions
- D. Family

The correct answer is option [B]

99. Which of the following plants is not carnivorous?

- A. Pitcher plants
- B. Mistletoes
- C. Bladderwort
- D. Sundew

The correct answer is option [B]

Mistletoes exist as external parasites on other plants.

100. Which of the following is incorrect about rhizopus or mucor?

- A. It is a fungus.
- B. It has non-septate hyphae.
- C. It undergoes sexual and asexual reproduction.
- D. It bears spores in sporangia.

The correct answer is option [C]

101. _____ are the most complex green plants.

- A. Gymnosperms
- B. Thallophytes
- C. Angiosperms
- D. Bryophytes

The correct answer is option [C]

102. Which of these worms is beneficial to man?

- A. Hookworm
- B. Tapeworm
- C. Roundworm
- D. Earthworm

The correct answer is option [D]

The burrowing of earthworms improves soil structure, mixes and tills the soil, aids humus formation and increases nutrient availability for plants.

103. Which of these is the most important characteristics of living organisms?

- A. Reproduction
- B. Nutrition
- C. Movement
- D. All of the above

The correct answer is option [D]

104. In taxonomic rank, which of the following is the highest rank?

- A. Class
- B. Kingdom
- C. Phylum
- D. Species

The correct answer is option [B]

105. Phyla is to animals as _____ is to plants.

- A. kingdom
- B. genera
- C. species
- D. division

The correct answer is option [D]

106. _____ is common to a typical animal cell and a typical plant cell?

- A. Cellulose cell wall
- B. Chlorophyll
- C. Centrally placed nucleus
- D. Cell membrane

The correct answer is option [D]

107. _____ is the study of plants and animals.

- A. Life
- B. Biology
- C. Science
- D. Research

The correct answer is option [B]

108. Which of these parts of the Euglena makes it a plant?

- A. Paramylum granules
- B. Eye spot
- C. Contractile vacuole
- D. Nucleus

The correct answer is option [A]

109. _____ are formed when algae and fungi exist together.

- A. Fungolis
- B. Lichens
- C. Funalga
- D. Bacteria

The correct answer is option [B]

110. The tap root system is typical to _____.

- A. dicots
- B. monocots
- C. gymnosperms
- D. ferns

The correct answer is option [A]

111. Which of these plant kingdoms have roots, stems or leaves?

- A. Spermatophyte
- B. Pteridophyta
- C. Schizophyta
- D. Thallophyta

The correct answer is option [D]

112. Nematodes are also known as _____.

- A. flatworms
- B. earthworms
- C. hookworms
- D. roundworms

The correct answer is option [D]

113. Plant classification was published in the year _____.

- A. 1707
- B. 1778
- C. 1753
- D. 1758

The correct answer is option [C]

114. The jointed appendages of arthropods are used for all of the following except _____.

- A. feeding
- B. movement
- C. reproduction
- D. excretion

The correct answer is option [D]

115. The following are examples of crustaceans except _____.

- A. crab
- B. shrimps
- C. lobsters
- D. periwinkles

The correct answer is option [D]

Periwinkles are molluscs.

116. A major difference between plants and animals is that _____.

- A. movement in animals is free but limited in plants
- B. there is indefinite growth in animals
- C. animals consume inorganic materials as food, while plants consume organic materials

D. animals give up carbon dioxide as a waste product of respiration while plants do not

The correct answer is option [A]

117. Which of the following is not true of animal cells?

- A. Chloroplasts are present
- B. Cytoplasm is present
- C. Cell wall is absent
- D. Vacuoles are present

The correct answer is option [A]

118. Which one of these is the correct hierarchical arrangement?

- A. KINGDOM-PHYLUM-CLASS-DIVISION-FAMILY-GENUS-ORDER
- B. KINGDOM-PHYLUM-CLASS-ORDER-FAMILY-GENUS-SPECIES
- C. FAMILY-KINGDOM-COMPOUND-GENUS-SPECIES-PHYLUM-CLASS
- D. KINGDOM-CLASS-DIVISION-GENUS-SPECIES-PHYLUM-CLASS

The correct answer is option [B]

119. Which of these characteristics makes virus a living organism?

- A. It is microscopic in nature.
- B. Its characteristics can be transferred from one generation to the next.
- C. It assumes a crystalline form in a non-living medium.
- D. It causes deadly and transferable disease like other microorganisms.
- E. All of the above

The correct answer is option [B]

120. Invertebrates are divided into _____ groups.

- A. 2

B. 4

C. 6

D. 8

The correct answer is option [D]

121. Which of these is not a dicotyledon?

A. Mango

B. Cowpea

C. Groundnut

D. Maize

The correct answer is option [D]

Zea mays (maize) is monocotyledon.

122. Animal classification was introduced in the year _____.

A. 1707

B. 1778

C. 1753

D. 1758

The correct answer is option [D]

123. Which of these does not have a shell?

A. Snail

B. Slug

C. Periwinkle

D. Clam

The correct answer is option [B]

124. In which of the following areas can science be applied?

- A. Medicine
- B. Construction
- C. Engineering
- D. All of the above

The correct answer is option [D]

TOPIC: CONCEPT OF LIVING

DIRECTION: Choose the correct answer from the lettered options.

1. Which of the following is not true about living things?

- A. All existing cells come from the reproduction of pre-existing cells
- B. All living things are made up of cells.
- C. Genetic information is passed down from offspring to parents.
- D. All cells contains information for its structural and functional development in its nucleic acid.

The correct answer is option [C]

2. The following are general characteristics of living things except _____.

- A. growth
- B. death
- C. walking
- D. adaptation

The correct answer is option [C]

3. Animals move from place to place in search of the following except _____.

- A. mates
- B. water
- C. air
- D. shelter

The correct answer is option [C]

4. Living things include _____ and _____.

- A. plates and knives
- B. meat and knife

- C. plants and animals
- D. plants and crops alone

The correct Answer is option [C].

5. Plants store their food as _____.

- A. glucose
- B. glycogen
- C. starch
- D. saccharides

The correct answer is option [C]

6 _____ is the division of a cell to form another.

- A. Fusions
- B. Production
- C. Respiration
- D. Reproduction

The correct answer is option [D].

Look at the diagram carefully and answer the question correctly.

7. What is the name of this animal?



- A. Egg
- B. Snail
- C. Snailing
- D. Snake

The correct Answer is option [B].

8. Which one of the following is not a vertebrate?

- A. Hen
- B. Man
- C. Fish
- D. Ant

The correct answer is option [D]

9. Plants during photosynthesis give out _____ as a by product.

- A. fruits
- B. food
- C. carbon dioxide
- D. oxygen

The correct answer is option [D]

Look at the diagram carefully and answer the question that follows.

10. What is the name of this type of fish?



- A. Tilapia
- B. Minnow
- C. Mackerel
- D. Shark

The correct Answer is option [B].

11. Which of these food types is rich in proteins?

- A. Bread

- B. Palm oil
- C. Beef
- D. Pawpaw

The correct answer is option [C]

12. Substances making up living things are derived directly or indirectly from water, soil and _____.

- A. air
- B. trees
- C. energy
- D. none of the above

The correct answer is option [A]

Look at the diagram carefully and answer the question correctly.

13. What is the name of the part labelled 1?



- A. Eye
- B. Nostrils
- C. Gills
- D. Mouth

The correct Answer is option [A].

14 The synthesis of complex molecules in living organisms from simpler molecules is known as _____.

- A. anabolism

B. catabolism

C. anabism

D. catabism

The correct answer is option [A]

15. The following are fields in which the knowledge of biology can be applied except _____.

A. biotechnology

B. agriculture

C. economics

D. genetics

The correct answer is option [C]

16. The structural organization in tissues or organs are never found in _____.

A. living things

B. non-living things

C. plants

D. avers

The correct answer is option [B]

17. What is growth?

A. It is an increase in the size of all parts of an organism.

B. It is an increase in the height alone of an organism.

C. It is an increase the width of a part of an organism.

D. It is a deformity that occurs which leads to the increase in height and width of the organism.

The correct answer is option [A].

Look at the diagram carefully and answer the question correctly.

18. What is the name of the part labelled 2?



- A. Tailing
- B. Tail or caudal fin
- C. Bifins
- D. Labels

The correct Answer is option [B].

19. _____ is a waste product from plants.

- A. Gum
- B. Water
- C. Carbon monoxide
- D. None of the above

The correct answer is option [A]

20. The division of kingdoms into smaller groups is called _____.

- A. phyla
- B. genus
- C. class
- D. species

The correct answer is option [A]

21. Which of the following is not involved in the movement of living organisms?

- A. Bones

- B. Follicles
- C. Cilia
- D. Muscles

The correct answer is option [B]

Examine the diagram carefully and answer the question that follows.

22. What is the name of this type of worm?



- A. Ringworm
- B. Speed worm
- C. Bagworm
- D. Earthworm

The correct Answer is option [D].

Look at the diagram carefully and answer the question correctly.

23. What is the name of this type of fish?



- A. Rayfish
- B. Catfish
- C. Money fish
- D. Sardine fish

The correct Answer is option [A]

24. When a hypothesis has been tested and found to be repeatedly correct within the limits of available evidence, it becomes a _____.

- A. theory
- B. certified hypothesis
- C. speculation
- D. doctrine

The correct answer is option [A].

25. Sensitivity is another word for _____.

- A. irritability
- B. withdrawal
- C. response
- D. changes

The correct answer is option [A]

Look at the picture carefully and answer the question correctly.

26. What is the name of this animal?



- A. Crocodile
- B. Newt
- C. Lizard
- D. Reptile

The correct Answer is option [B].

27. Do wall geckos look like lizards?

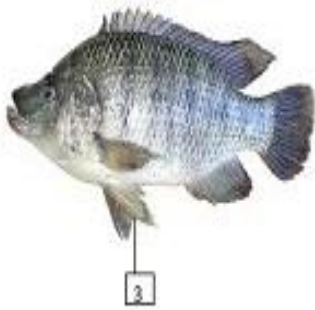
A. Yes

B. No

The correct Answer is option [A].

Look at the diagram carefully and answer the question correctly.

28. The part labelled 3 in the diagram is called _____.



A. pelvic fin

B. pectoral fin

C. fin rays

D. dorsal fin

The correct Answer is option [A].

29. The following are found in both plants and animals except _____.

A. cytoplasm

B. vacuole

C. Golgi body

D. centrioles

The correct answer is option [D]

Look at the diagram carefully and answer the question correctly.

30. What is the name of this type of fish?



- A. Batfish
- B. Cowfish
- C. Sea fish
- D. Catfish

The correct Answer is option [D].

31. All living things feed to produce _____ energy for work.

- A. mechanical
- B. body
- C. chemical
- D. none of the above

The correct answer is option [C]

32. Any object that does not possess life or living characteristics is a _____.

- A. living object
- B. non-living object
- C. growing object
- D. cell

The correct answer is option [B]

33. The report of a scientific investigation should include the following except _____.

- A. observation

- B. hypothesis
- C. experimental procedure
- D. practical

The correct answer is option [D]

34. A _____ is a reasonable explanation for a particular observation.

- A. theory
- B. hypothesis
- C. guess
- D. observation

The correct answer is option [B].

35. Unicellular organisms are called _____.

- A. protozoans
- B. metazoans
- C. pongidae
- D. proteus

The correct answer is option [A]

36. The newt is an animal that looks like a _____.

- A. fowl
- B. bird
- C. cockroach
- D. lizard

The correct Answer is option [D].

Look at the picture carefully and answer the question correctly.

37. What is the name of the animal in the picture?



- A. Lizard
- B. Lizerd
- C. Wall gecko
- D. Agama lizard

The correct Answer is option [A].

38. An order is a group of related _____.

- A. genera
- B. families
- C. classes
- D. phyla

The correct answer is option [B]

39. _____ consists of the nucleus and cytoplasm.

- A. Protoplasm
- B. Chromosome
- C. Lysosomes
- D. Organelles

The correct answer is option [A]

40. What is metabolism?

- A. It is change in a cell that leads to the increase in the height and width of the organism.
- B. It is the conversion of non-living materials into cellular components.
- C. It is the breakdown of food and fluid substances in the body to produce waste.
- D. It is the decomposition of inorganic matter.

The correct answer is option [B].

Look at the diagram carefully and answer the question correctly.

41. What is this animal called?



- A. Leech
- B. Lich
- C. Linc
- D. Lach

The correct Answer is option [A].

42. The process where by the food you eat is made part of the body is called _____.

- A. growth
- B. ingestion
- C. addition
- D. assimilation

The correct answer is option [D]

43. Which of the following is an organelle directly involved in cell division in animals?

- A. Cytoplasm
- B. Centrioles
- C. Mitochondria
- D. Cell wall

The correct answer is option [B].

44. _____ is a metabolic process that breaks down organic matter.

- A. catastrophe
- B. catalogue
- C. catabolism
- D. anabolism

The correct answer is option [C]

TOPIC: CONSERVATION OF NATURAL RESOURCES

DIRECTION: Choose the correct answer from the lettered options.

1. _____ is the process where only mature trees are allowed to be felled for timber.

- A. Indiscriminate cutting
- B. Random tree cutting
- C. Selective cutting
- D. Tactical tree felling

The correct answer is option [C].

2. Which of the following is not a means of conserving natural resources?

- A. Establishment of national parks
- B. Selective logging
- C. Building of dams
- D. Bush burning

The correct answer is option [D]

Bush burning upsets the natural ecological systems.

3. In which of the following states in Nigeria is Borgu game reserve found?

- A. Enugu
- B. Anambra
- C. Kano
- D. Niger

The correct answer is option [D].

4. Which of the following is not a conservable natural resource?

- A. Minerals

- B. Sunlight
- C. Forest
- D. Soil

The correct answer is option [B]

5. What does planting of trees that provide surface cover for the soil do?

- A. It reduces soil nutrients.
- B. It causes deficiency in plant growth.
- C. It prevents rain from the soil.
- D. It reduces water evaporation from the soil.

The correct answer is option [D].

6. Afforestation is best described as _____.

- A. the harvesting of natural forest resources
- B. planting trees of value to man
- C. fallowing forestland
- D. felling trees in the forest

The correct answer is option [B]

7. _____ is the judicious use of natural resources to ensure their continuous availability and to preserve the original nature of the environment.

- A. Conservation of natural resources
- B. Human resource control
- C. Wildlife study
- D. Environmental study

The correct answer is option [A]

8. Storage of water in tanks or wells is a method of _____ water.

- A. recycling
- B. treating
- C. conserving
- D. reusing

The correct answer is option [C]

9. Natural resources are classified into ____ categories.

- A. 1
- B. 3
- C. 2
- D. 4

The correct answer is option [C]

The two (2) classification of natural resources are renewable and non-renewable resources.

10. _____ are resources which when exhausted cannot be replaced or recovered.

- A. Non-renewable resources
- B. Renewable
- C. Conserved
- D. Recycled

The correct answer is option [A]

11. Which one of the following is a set of natural resources that needs to be conserved?

- A. Blood, wildlife, lime and arteries
- B. Concrete, sand, skin and fingers
- C. Fingers, forest, head and skin

D. Water, wildlife, forest, and mineral resources

The correct answer is option [D]

12. Why are mineral resources non-renewable?

A. They are never exhausted.

B. They can be replaced quickly.

C. Once they are exhausted, they cannot be replaced.

D. It is very small in quantity.

The correct answer is option [C]

13. The term used in describing the effective management of natural resources by man is known as _____.

A. conservation

B. utilization

C. economics

D. development

The correct answer is option [A]

14. The largest game reserve in Nigeria is the _____.

A. Kanji Game Reserve in Niger State

B. Zamfara forest Reserve in Zamfara State

C. Yankari Game Reserve in Bauchi State

D. Borgu Game Reserve in Niger State

The correct answer is option [C]

15. The conservation of non-renewable resources involves the following except _____.

A. minimizing their wastage

- B. using other natural resources
- C. recycling them where possible
- D. finding acceptable alternatives

The correct answer is option [B].

16. Methods of soil conservation includes _____.

- A. overgrazing
- B. deforestation
- C. recycling of materials
- D. afforestation

The correct answer is option [D].

17. Which of the following farm practices can cause loss of soil fertility?

- A. Mulching
- B. Compost application
- C. Use of fertilizers
- D. Intensive cropping

The correct answer is option [D]

18. _____ involves the spreading of a layer of vegetable materials on cultivated farmland.

- A. Planting
- B. Fallowing
- C. Mulching
- D. Cultivation

The correct answer is option [C].

19. Are mineral resources renewable?

- A. No
- B. Yes

The correct answer is option [A]

20. The conservation of natural resources can be achieved by the following except _____.

- A. creation of national parks
- B. formation of conservation societies and agencies
- C. establishment of game reserves
- D. deregulated harvesting

The correct answer is option [D]

21. Which one of the following is not a nature reserve in Nigeria?

- A. Borgu game reserve
- B. Yankari game reserve
- C. Olomu forest reserve
- D. Kalugu forest reserve

The correct answer is option [D].

22. Which one of the following is not a way of ensuring conservation?

- A. Establishment of agencies
- B. Promoting conservation education
- C. Establishment of conservation laws
- D. Destruction of zoological gardens

The correct answer is option [D].

23. Conservation of natural resources is aimed at _____.

- A. preventing the loss, waste or exploitation of natural resources through rational use
- B. preventing the spread of infectious diseases within a geographical location
- C. preventing the spread of diseases from domestic animals to humans
- D. none of the above

The correct answer is option [A]

24. Which of the following is a way of conserving natural resources?

- A. Establishing agencies for conservation and game reserves.
- B. Establishing companies and educational facilities.
- C. Regular renewal of used mineral resources.
- D. Ensuring wildlife becomes extinct.

The correct answer is option [A]

25. The planting of new trees where there was no tree is known as _____.

- A. afforestation
- B. deforestation
- C. re-planting
- D. plantation farming

The correct answer is option [A].

26. Through which of the following means can conservative education be effectively done?

- A. Television
- B. Cinemas
- C. Newspapers
- D. All of the above

The correct answer is option [D].

27. Which one of the following animals should be conserved?

- A. Domestic animals
- B. Wild animals
- C. Farm animals
- D. All of the above

The correct answer is option [D].

28. The farming practice by which an exhausted farmland is left for a number of years before cultivation is known as _____.

- A. crop rotation
- B. continuous cropping
- C. mono cropping
- D. bush fallowing

The correct answer is option [D]

29. _____ is not one of the advantages of clearing aquatic vegetation.

- A. Providing enough space for fish
- B. Allowing free oxygen circulation
- C. Increasing productivity
- D. Introducing harmful substances

The correct answer is option [D].

30. The following agencies are responsible for conservation in Nigeria except _____.

- A. Forestry Departments
- B. Nigerian Conservation Society
- C. Games Reserve Authority
- D. Red Cross Society

The correct answer is option [D]

31. Prevention of erosion could best be carried out by _____.

- A. crop rotation and deforestation
- B. contouring of sloping ground and afforestation
- C. grazing, terracing and shifting cultivation
- D. strip cropping and poaching

The correct answer is option [B]

32. Which of the following is not a method of conserving fishing grounds?

- A. Use of nets with all sizes of mesh.
- B. Use of nets with a particular mesh size.
- C. Ban on harvesting of some species.
- D. Regulating the sizes of mesh.

The correct answer is option [A]

The use of nets with all sizes of mesh would permit young fishes to be caught along with the mature fish.

33. Which one of the following is not an example of mineral resources?

- A. Petroleum
- B. Coal
- C. Bauxite
- D. Gammalin

The correct answer is option [D].

34. The felling of trees can be referred to as _____.

- A. forestry
- B. afforestation
- C. deforestation
- D. harvesting

The correct answer is option [C].

35. Which of the following is not a result of pollution of air and water?

- A. Decrease in plant population
- B. Proper animal growth
- C. Death
- D. Poisoning

The correct answer is option [B].

36. In checking wind erosion, _____ can serve as wind brakes.

- A. stems
- B. trees
- C. leaf
- D. roots

The correct answer is option [B].

37. _____ is a practice of illegally killing animals for commercial purposes.

- A. Hunting
- B. Poaching
- C. Murder
- D. None of the above

The correct answer is option [B].

38. Which of the following is not part of the objectives of natural resource conservation?

- A. To eliminate all wild animals for the survival of others.
- B. To use our resources on sustained yield basis.
- C. To guard against indiscriminate killing of plants and animals.
- D. To guard against the extinction and exhaustion of natural resources.

The correct answer is option [A]

39. What are the benefits of conservation?

- A. It helps to maintain a healthy functioning ecosystem.
- B. Natural reserves can be used to generate revenue.
- C. It preserves the beauty of nature.
- D. All of the above

The correct answer is option [D]

40. _____ is defined as the repeated grazing on a piece of land by domestic animals.

- A. Overstepping
- B. Overfeeding
- C. Overgrazing
- D. All of the above

The correct answer is option [C].

41. The following are main types of tissues in higher organisms except _____ tissues.

- A. digestive
- B. vascular
- C. muscular
- D. nervous

The correct answer is option [A]

42. In conservation of wildlife, killing of animals should _____.

- A. be allowed frequently
- B. be allowed moderately
- C. not be allowed
- D. none of the above

The correct answer is option [C].

43. Which of the following is a benefit of soil conservation?

- A. Prevention of soil erosion
- B. Prevention of over-grazing
- C. Escape of nutrients
- D. None of the above

The correct answer is option [A].

44. Which of the following is not a way of conserving the soil?

- A. Use of cover crops
- B. Bush burning
- C. Mulching
- D. Better farming practices

The correct answer is option [B].

45. Loam is the best type of soil for crop production because _____.

- A. it has a high percentage of clay, which prevents leaching
- B. it has high humus content
- C. it is porous and has good water retention capacity
- D. gravels, which obstruct implements, are absent

The correct answer is option [B]

46. Which one of the options is not a characteristic of aves?

- A. They are warm-blooded animals.
- B. They have no outer ear.
- C. They have a four chambered heart.
- D. They do not have lungs.

The correct answer is option [D]

47. Which of the following is not a non-renewable resource?

- A. Food
- B. Natural gas
- C. Coal
- D. Gasoline

The correct answer is option [A].

48. Which of the following is an importance of natural resources?

- A. It provides drinking water.
- B. It provides food for human consumption.
- C. It generates revenue for the government.
- D. All of the above.

The correct answer is option [D]

49. Oil spillage pollutes the _____.

- A. air
- B. water
- C. mind
- D. none of the above

The correct answer is option [B]

50. Which of the following is an air pollutant?

- A. Oxygen
- B. Water vapour
- C. Carbon monoxide
- D. Nitrogen

The correct answer is option [C]

Carbon monoxide is a poisonous gas formed from incomplete combustion.

TOPIC: ORGANISATION OF LIFE

DIRECTION: Choose the correct answer from the lettered options.

1. Which of the following methods of reproduction is common to Paramecium and Amoeba?

- A. Conjunction
- B. Sexual reproduction
- C. Binary fission
- D. Budding

The correct answer is option [C]

In binary fission, the parent organism simply divides into two, each of which can exist by itself.

2. Lining and protection of plant surface is a function of the _____.

- A. leaf
- B. tissues
- C. strengthening tissues
- D. epithelial tissues

The correct answer is option [D]

3. The main similarity between unicellular and multicellular organisms is that both _____.

- A. perform all life activities
- B. exist as filaments
- C. are plants
- D. exist as colonies

The correct answer is option [A]

4. Transportation of food and water in plants is by the _____.

- A. pacting
- B. vascular bundle
- C. pericycle
- D. cortex

The correct answer is option [B]

5. Characteristics of aves include the following except _____.

- A. they are homoeothermic
- B. their skeleton is rigid and their bones have air sacs
- C. they give birth to their young ones alive
- D. their head, neck and trunks are covered with feathers

The correct Answer is option [C].

6. A system is made up of different _____.

- A. tissues
- B. organs
- C. cells
- D. none of the above

The correct answer is option [B]

7. The oesophagus and the pancreas belong to the _____ system.

- A. digestive
- B. respiratory
- C. reproductive
- D. circulatory

The correct answer is option [A]

8. There are _____ levels of organization of life in organisms.

- A. 3
- B. 6
- C. 4
- D. 7

The correct Answer is option [D]. They include: Kingdom, phylum, class, order, family, genus and species (for animals)

For plants, phylum is called division.

9. What is the function of the nervous tissues?

- A. Conducting impulses
- B. Supporting the body
- C. Forming the skin
- D. Conveying food and oxygen

The correct answer is option [A]

10. Which of these does not manufacture its own food?

- A. Virus
- B. Spirogyra
- C. Green algae
- D. Euglena

The correct answer is option [A]

11. Euglena moves by _____.

- A. whipping action of its flagellum
- B. beating of its cilia
- C. rotating action of the microvilli
- D. locating the pseudopodia and cilia simultaneously

The correct answer is option [A]

12. Diatoms, Euglena, Spirogyra and Volvox are all examples of _____.

- A. fungi
- B. algae
- C. bacteria
- D. Amoeba

The correct answer is option [B]

13. What is the name of the structure in the cell that controls the movement of substances in and out of the cell?

- A. Cytoplasmic membrane
- B. Nuclear membrane
- C. Cytoplasm
- D. Protoplasm

The correct answer is option [A]

14. The _____ is the functional and structural unit of life.

- A. organ
- B. system
- C. cell
- D. tissue

The correct answer is option [C]

15. Which of the following pairs of organisms exists as colonies?

- A. Obelia and Euglena
- B. Pandorina and Volvox
- C. Chlamydomonas and Amoeba
- D. Hydra and Spirogyra

The correct answer is option [B]

16. An example of an animal made up of tissues only is _____.

- A. Amoeba
- B. Paramecium
- C. Hydra
- D. Euglena

The correct answer is option [C]

17. The main function of the xylem and phloem is _____.

- A. photosynthesis
- B. support
- C. conduction and translocation
- D. reproduction and photosynthesis

The correct answer is option [C]

18. The _____ law of thermodynamics states that energy can neither be created nor destroyed.

- A. first
- B. second
- C. Third
- D. fourth

The correct Answer is option [A].

19. Which of the following is not correct about a living cell?

- A. The basic unit of a living organism is the cell.
- B. All living organisms are either single or groups of cell(s).
- C. All the cells in an organism are the same.
- D. There is no life apart from the life in cells.

The correct answer is option [C]

20. The vegetative plant body of fungi is called _____.

- A. pileus
- B. gill
- C. stipe
- D. hyphae

The correct answer is option [D]

21. The chemical formula for oxygen is _____.

- A. OX_2
- B. O
- C. O_2
- D. H_2O

The correct answer is option [C]

22. Movement of parts of the body is by _____ tissues.

- A. muscle
- B. epithelial
- C. connective
- D. nerve

The correct answer is option [A]

23. The digestive system is made up of organs such as the following except _____.

- A. stomach
- B. veins
- C. duodenum
- D. ileum

The correct answer is option [B]

24. Euglena may be classified as a plant because it _____.

- A. has chloroplasts
- B. has a gullet
- C. lives in a pond
- D. possesses a flagellum

The correct answer is option [A]

25. The simplest of all the levels of organization in mammals is the _____.

- A. tissue
- B. organ
- C. system
- D. cell

The correct Answer is option [D].

26. What is energy?

- A. Energy is defined as the ability to do work.
- B. Energy is defined as the ability to carry effort.
- C. Energy is force.
- D. Energy is the speed exerted on force.

The correct Answer is option [A].

27. _____ is a disadvantage of complexity in higher organisms.

- A. High energy requirement
- B. Functional efficiency
- C. Low energy requirement
- D. Increase in size

The correct answer is option [A]

28. Stamen and pistil are organs in the _____ system.

- A. root
- B. shoot
- C. transport
- D. reproductive

The correct answer is option [D]

29. Which of the following structures controls the activities of a living cell?

- A. Nucleus
- B. Centrosome
- C. Chloroplast
- D. Golgi body

The correct answer is option [A]

30. Which one of the following is the ultimate source of energy?

- A. Rain
- B. The cloud
- C. The water vapour
- D. The sun

The correct Answer is option [D].

31. What is a single-celled organism called?

- A. Mon cellular
- B. Unicellular
- C. Single cellular
- D. None of the above

The correct answer is option [B]

32. Living things are made up of _____.

- A. blood
- B. skeleton
- C. cells
- D. muscles

The correct answer is option [C]

33. A tissue is a collection of _____.

- A. cells
- B. organs
- C. systems
- D. muscles

The correct answer is option [A]

34. The cilia in Paramecium are used for _____.

- A. respiration
- B. locomotion
- C. protection
- D. producing food

The correct answer is option [B]

In Paramecium, the action of the cilia moves the whole organism.

35. Which of the following systems provides places for the attachment of muscles?

- A. Nervous systems
- B. Reproductive systems
- C. Skeletal systems
- D. Digestive systems

The correct answer is option [C]

36. A multicellular organism has _____.

- A. Two cells
- B. many cells
- C. less than one cell
- D. none of the above

The correct answer is option [B]

37. The following are examples of cytoplasmic structures except _____.

- A. vacuoles
- B. flagella
- C. cilia
- D. fur

The correct answer is option [D]

38. In humans, exchange of gases take place with the help of the _____ and _____.

- A. nose, lungs
- B. skin, mouth
- C. heart, lungs
- D. all of the above

The correct answer is option [A]

39. Amoeba moves by means of _____.

- A. cilia
- B. flagella
- C. pseudopodia
- D. swimmerets

The correct answer is option [C]

Pseudopodia are temporary projections of a cell.

40. The _____ law of thermodynamics states that in any conversion of energy from one form to another, there is always a decrease in the amount of useful energy.

- A. Third
- B. first
- C. second
- D. fourth

The correct Answer is option [C].

41. The second level of organization in mammals is _____.

- A. cells
- B. organs
- C. tissues
- D. systems

The correct Answer is option [C].

42. The scientist who discovered the honey-comb structure of the cell was _____.

- A. Robert Hooke
- B. Felix Dujardin
- C. Mathias Schleiden
- D. Louis Pasteur

The correct answer is option [A]

43. Most of the energy in the cell is produced in the _____.

- A. mitochondrion
- B. lysosome
- C. plastid
- D. Golgi apparatus

The correct answer is option [A]

44. What gives support to flowering plants?

- A. Stem and leaves
- B. Root and root hairs
- C. Xylem
- D. Phloem

The correct answer is option [C]

45. The formation of fats and oils from fatty acids and glycerol is an example of _____ process.

- A. photolytic
- B. anabolic
- C. catabolic
- D. metabolism

The correct Answer is option [B].

46. Which of the following organisms does not carry out photosynthesis?

- A. Chlorella
- B. Spirogyra
- C. Paramecium
- D. Chlamydomonas

The correct answer is option [C].

Paramecium is a genus of unicellular protozoa.

47. Which one of the following sets represents energy forms?

- A. Mechanical, electrical, solar, potential
- B. Steam, kinetic, mechanical, solar
- C. Power, current, voltage, circuit
- D. Nuclear, solar, car, machine

The correct Answer is option [A].

48. The levels of organization of life in organisms are _____, _____, _____ and _____.

- A. cells, tissues, organs, systems
- B. kingdom, phylum, class, order
- C. appendicular, axial, upper limbs, lower limbs
- D. eye, ear, nose, tongue

The correct Answer is option [A].

49. The main organs in the female reproductive system include the following except _____.

- A. testicle
- B. vagina
- C. ovaries
- D. uterus

The correct answer is option [A]

50. Which of the following constitutes the main internal tissues of a leaf?

- A. Cuticle
- B. Mesophyll
- C. Vascular tissue
- D. Lower epidermis

The correct answer is option [B]

TOPIC: PLANT AND ANIMAL NUTRITION

DIRECTION: Choose the correct answer from the lettered options.

1. A person that is obese must avoid meals containing _____ and _____.

- A. carrots and oranges
- B. margarine and butter
- C. groundnut and beans
- D. beef and yam

The correct answer is option [D]

2. When food is oxidized, _____ is released.

- A. CO₂
- B. O₂
- C. energy
- D. carbohydrate

The correct answer is option [C]

3. The first stable product of photosynthesis is _____.

- A. water
- B. starch
- C. carbon dioxide
- D. glucose

The correct answer is option [D].

Water and carbon dioxides are by-products. Glucose on the other hand is the first stable product which will subsequently be converted to starch.

4. What are the two basic modes of nutrition in living organisms?

- A. Holozoic and heterotrophic

- B. Autotrophic and holozoic
- C. Holophytic and chemosynthesis
- D. Holozoic and photosynthesis

The correct answer is option [B]

5. Nutrients needed by plants in tiny amounts are known as _____.

- A. macronutrients
- B. essential elements
- C. trace nutrients
- D. all of the above

The correct answer is option [C].

6. In the classification of living organisms, nematode, Annelida and mollusca are examples of _____.

- A. genus
- B. kingdom Plantae
- C. kingdom Animalia
- D. special

The correct answer is option [C]

7. To retain the desirable trait of large body size in a herd observed by the farmer, he needs to _____.

- A. feed the animals in the herd with more food
- B. cross-breed the animals with a different herd
- C. inbreed the animals within the herd
- D. prevent diseases in his herd

The correct answer is option [C]

8. The role of adenosine triphosphate (ATP) include all except _____.

- A. chemical energy production
- B. transmission of nerve impulses
- C. alcohol production in aerobic respiration
- D. water production in aerobic respiration

The correct answer is option [C]

9. Vitamin E is concerned with _____.

- A. bone formation
- B. reproduction
- C. vision
- D. formation of red blood cell

The correct answer is option [B]

Vitamin E plays an important role in male and female reproductive health.

10. What is the function of bacteria in the large intestine of man?

- A. To synthesize vitamin K and B2
- B. To digest vegetables
- C. To synthesize vitamins A and D
- D. To absorb water

The correct answer is option [B]

11. Heterotrophic nutrition can be defined as _____.

- A. feeding by depending on one's own manufactured food
- B. direct or indirect nutrition from plants
- C. feeding of child by parent
- D. nutrition of plants through photosynthesis

The correct answer is option [B]

12. Which of the following is a symbol for representing manganese?

- A. Mn
- B. Mg
- C. Ma
- D. Ms

The correct answer is option [A].

13. What mode of nutrition is exhibited by autotrophs?

- A. Holophytic
- B. Heterophic
- C. Chemotrophic
- D. Holozoic

The correct answer is option [A]

14. Which of the following organs are directly involved in nutrition?

- A. Oesophagus, bronchus, stomach, pancreas and anus
- B. Spleen, pharynx, duodenum, jejunum and rectum
- C. Teeth, oesophagus, ileum wings and large intestine
- D. Salivary gland, liver

The correct answer is option [D]

15. Which of the following groups consists of heterotrophs?

- A. Mucor, Chlamydomonas and Euglena
- B. Spirogyra, mucor and mushroom
- C. Man, mucor and mushroom
- D. Man, maize and cocopea

The correct answer is option [C]

16. Which of the following is an autotrophic mode of nutrition?

- A. Chemosynthesis
- B. Saprophytism
- C. Parasitism
- D. Symbiosis

The correct answer is option [A]

In chemosynthesis, carbohydrates are manufactured from carbon dioxide and water using chemical nutrients as the energy source, rather than the sunlight used in photosynthesis.

17. Which one of the following is not a storage organ in plants?

- A. Underground stems
- B. Root tubers
- C. Seeds
- D. Buds

The correct answer is option [D].

18 The following are factors that affect photosynthesis except _____.

- A. chlorophyll concentration
- B. water logged soil
- C. optimum temperature
- D. light intensity

The correct answer is option [B].

19. All organs of plants with chlorophylls are _____ in colour.

- A. green
- B. yellow
- C. brown

D. white

The correct answer is option [A].

20. Which of the following structural features makes *Drosera* (sundew) adapt to its carnivorous mode of nutrition?

- A. Long root with glandular hairs
- B. Club-shaped glandular hairs on leaves
- C. Prominent lenticel on the stem
- D. Broad leaves with long spines

The correct answer is option [B]

21. In the marine food web, the source of energy to the producer comes from the _____.

- A. sea waves
- B. sea water
- C. sun
- D. air

The correct answer is option [C]

22. _____ are fungi or bacteria that feed on dead organic matter.

- A. Endo parasites
- B. Saprophytes
- C. Commensals
- D. Symbionts

The correct answer is option [B]

23. In humans, water can be excreted through _____.

- A. the skin

- B. the digestive tract
- C. the cytoplasm of worn-out cells
- D. the cellular respiration

The correct answer is option [A]

24. Thunderstorm can be beneficial to plants because it _____.

- A. kills the pests that attack the crops
- B. destroys some of the major crops
- C. adds nitrates to the soil
- D. adds lime to the soil

The correct answer is option [C]

25. Which of the following is used to test for protein?

- A. Million's reagent
- B. Fehling's solution
- C. Sudan III
- D. Iodine solution

The correct answer is option [A]

A solution of mercuric nitrate and nitrous acid used to test for proteins.

26. During which of the following processes is food for animals produced?

- A. Photosynthesis
- B. Respiration
- C. Nutrition
- D. Digestion

The correct answer is option [A]

27. Which of the following is not one of the processes involved in nitrification?

- A. Conversion of ammonia into nitrites
- B. Conversion of nitrites into nitrates
- C. Conversion of nitrates into nitrogen gas
- D. None of the above

The correct answer is option [C]

28. Which of the following is the best proof of photosynthesis by a plant?

- A. Absorption of light
- B. Formation of starch
- C. Availability of carbon dioxide
- D. Splitting of water molecules

The correct answer is option [A]

29. Which of the following is not a micronutrient?

- A. Molybdenum
- B. Phosphorus
- C. Iron
- D. Manganese

The correct answer is option [B].

30. The _____ is vestigial in humans but functional in other mammals.

- A. liver
- B. appendix
- C. rectum
- D. stomach

The correct answer is option [B]

31. The mode of nutrition exhibited by a tapeworm is _____.

- A. symbiotic
- B. saprophytic
- C. parasitic
- D. holozoic

The correct answer is option [C]

32. Chlorophyll and protein formation is a function of _____.

- A. iron
- B. sulphur
- C. potassium
- D. calcium

The correct answer is option [A].

33. Which of the following essential substances is contained in vegetables?

- A. Chlorophyll
- B. Glucose
- C. Mineral salts
- D. Carbon dioxide

The correct answer is option [C].

34. Which of the following juices contains the enzyme ptyalin?

- A. Gastric juice
- B. Pancreatic juice
- C. Succus
- D. Saliva

The correct answer is option [D]

35. Which one of the following does not reduce chlorophyll concentration?

- A. High light intensity
- B. Mineral deficiency diseases
- C. Ageing process
- D. Optimum light intensity

The correct answer is option [D].

36. An experiment designed to eliminate all bias when carrying out an experiment is known as the _____?

- A. observation
- B. inference for the experiment
- C. established hypothesis
- D. controlled experiment

The correct answer is option [D]

37. Which of the following pairs of organisms are photosynthetic?

- A. Amoeba and Paramecium
- B. Volvox and Rhizopus
- C. Chlamydomonas and Euglena
- D. Nostoc and Plasmodium

The correct answer is option [C]

38. Green plants manufacture their food in the presence of sunlight through the process of _____.

- A. photosynthesis
- B. chemosynthesis
- C. nutrition
- D. saprophytism

The correct answer is option [A]

39. _____ is not a mineral salt required for the synthesis of proteins, fats and oils in plants.

- A. Phosphates
- B. Nitrates
- C. Carbon
- D. Sulphates

The correct answer is option [C].

40. When reporting a scientific investigation, which of the following option is correct?

- A. Observation ---> Control ---> Theory ---> Inference ---> Data
- B. Observation ---> Inference ---> Measurement ---> Identification ---> Hypothesis ---> Experiment ---> theory
- C. Collection ---> Aim ---> Objective ---> Method ---> Experiment ---> Conclusion
- D. Observation ---> Hypothesis ---> Experiment ---> Result ---> Analysis ---> Conclusion

The correct answer is option [D]

41. In the biuret's test, some protein was mixed with sodium hydroxide solution. Which of the following chemicals should be added to the mixture for positive results?

- A. Mercurous nitrate
- B. Copper sulphate
- C. Mercuric nitrate
- D. Sodium carbonate

The correct answer is option [B]

42. Autotrophic nutrition may be described as food obtained _____.

- A. from other organisms in exchange for some products
- B. by the breakdown of complex substances to simple digestable substances
- C. by an organism utilizing its own store of energy

D. by synthesizing simple substances using energy from an external source

The correct answer is option [D]

43. Green plants require _____ to manufacture their food.

A. fluids

B. inorganic substances

C. living materials

D. gases only

The correct answer is option [B]

44. In which of the following forms can carbohydrate be stored in yam?

A. Glucose

B. Maltose

C. Starch

D. Glycogen

The correct answer is option [C]

45. Which of the following mineral salts is a trace element?

A. Zinc

B. Carbon

C. Hydrogen

D. Potassium

The correct answer is option [A]

46. Which of the following is used to test for starch?

A. Million's reagent

B. Fehling's solution

C. Sudan III solution

D. Iodine solution

The correct answer is option [D]

Iodine solution gives a blue-black colouration in the presence of starch. This is due to the formation of a starch-iodine complex.

47. The _____ of a plant is the only structure capable of trapping sunlight..

A. guard cell

B. chlorophyll

C. cuticle

D. vascular bundle

The correct answer is option [B].

48. The dentition of an herbivore is distinct from that of other animals due to the presence of _____.

A. diastema

B. cusps on molar teeth

C. canines

D. ridges on molar teeth

The correct answer is option [A]

The diastema is the gap between the incisors and the premolars.

49. Carbon (iv) oxide diffuses into the leaves through the _____ to the mesophyll layer.

A. stomata

B. guard cells

C. air space

D. epidermis

The correct answer is option [A].

50. A _____ colour confirms the presence of starch in a leaf.

- A. blue-green
- B. blue-grey
- C. blue-black
- D. blue

The correct answer is option [C].

51. The importance of a balanced diet is to _____.

- A. maintain constant size of an animal
- B. provide good taste in the food
- C. increase the effectiveness of digestion
- D. provide good health for an individual

The correct answer is option [D]

A balanced diet contains all six classes of food in the right amounts to suit a person's age, sex, activity, weight and the climate.

52. In the body, dietary vitamins plays the role of _____.

- A. supplying carbohydrates and fats
- B. influencing certain chemical processes
- C. stimulating the muscles of the alimentary canal
- D. digesting proteins

The correct answer is option [B]

53. In the test for starch, the leaf is first placed in boiling water in order to _____-_____.

- A. remove the chlorophyll
- B. dissolve the waxy cuticle
- C. kill and make the leaf permeable

D. turn it blue-black

The correct answer is option [C]

54. The nutrient necessary for nitrogen fixation is _____.

A. zinc

B. chlorine

C. molybdenum

D. copper

The correct answer is option [C].

55. Only green plants can carry out autotrophic nutrition.

A. True

B. False

The correct answer is option [A]

56. The teeth used for tearing and cutting are _____ and _____.

A. canine and molars

B. premolars and incisors

C. molars and incisors

D. canine and incisors

The correct answer is option [D]

57. Stunted growth and chlorosis are deficiencies in plants that lack the following except _____.

A. nitrogen

B. magnesium

C. manganese

D. iron

The correct answer is option [C].

58. Which of the following organisms exhibits extracellular digestion?

- A. Moulds
- B. Green plants
- C. Algae
- D. Bryophytes

The correct answer is option [A]

59. An example of a macronutrient is _____.

- A. zinc
- B. copper
- C. boron
- D. sulphur

The correct answer is option [D].

60. Nitrogen-fixing microorganisms in leguminous plants live symbiotically in the _____.

- A. root nodules
- B. taproots
- C. branch roots
- D. root hairs

The correct answer is option [A]

61. Which of the following statements is not true of the light stage of photosynthesis?

- A. Chlorophyll is energized by sunlight.
- B. Water molecules split into hydrogen and hydroxyl ions.
- C. Carbon (IV) oxide is reduced by hydrogen atoms in NADPH₂.
- D. Water is formed.

The correct answer is option [D]

62. For heterotrophic organisms, competition is least caused by the inadequacy of _____.

- A. mates
- B. space
- C. light
- D. nutrients

The correct answer is option [C]

63. Which of the following does not represent a heterotrophic mode of nutrition?

- A. Symbiosis
- B. Parasitism
- C. Commensalism
- D. Holophytism

The correct answer is option [D]

Holophytism relies on photosynthesis to obtain nutrients; thus it is not a heterotrophic mode of nutrition.

64. When proteins are broken down, they provide the body with _____.

- A. glycerol
- B. monosaccharaides
- C. energy
- D. amino acids

The correct answer is option [D]

65. Which of the following is considered the first product of photosynthesis?

- A. Protein
- B. Energized chlorophyll
- C. Hydroxyl ions

D. Starch

The correct answer is option [D].

66. Good quality food will perform the following functions in humans except _____.

- A. supply energy for the body
- B. provide resistance against natural disasters
- C. sustain growth
- D. maintain health

The correct answer is option [B]

67. Which of the following is not an importance of calcium?

- A. It is involved in cell wall formation.
- B. It is necessary for protein formation.
- C. It is vital for enzyme activation.
- D. It helps give rigidity to plants.

The correct answer is option [B].

68. Legumes incorporate nitrogen gas into their proteins because _____.

- A. of the presence of azotobacter in their roots
- B. they possess root nodules containing Rhizobium
- C. they have a well-developed root system
- D. they are autotrophic

The correct answer is option [B]

69. Which of the following is not true of photosynthesis?

- A. Energy from sunlight is absorbed.
- B. Carbon dioxide is evolved.

C. Glucose is synthesized.

D. Oxygen is given off.

The correct answer is option [B]

Photosynthesis uses sunlight, inorganic compounds, carbon dioxide and water to produce sugars; while oxygen is given off as a waste product.

70. A thunderstorm can be beneficial to plants because it _____.

A. kills the pest that attacks crops

B. destroys some of the major crops

C. adds nitrates to the soil

D. adds lime to the soil

The correct answer is option [C]

71. The type of nutrition shown by Spirogyra is _____.

A. symbiosis

B. holophytic

C. holozoic

D. chemosynthetic

The correct answer is option [B]

72. The severe deficiency of vitamin C leads to _____.

A. Kwashiorkor

B. Beriberi

C. Pellagra

D. Scurvy

The correct answer is option [D]

73. Which of the following statements about water in humans is not correct?

- A. It plays an important role in temperature regulation.
- B. It acts as solvent for substances conveyed around the body.
- C. It plays a role in the formation of vitamin D.
- D. It is needed for many life processes.

The correct answer is option [C]

74. Which of the following groups consists of only micronutrients?

- A. Molybdenum, sulphur and copper
- B. Boron, zinc and calcium
- C. Manganese, molybdenum and zinc
- D. Magnesium, phosphorus and manganese

The correct answer is option [C]

75. Overcrowding in seedlings of different species is less serious than overcrowding involving one specie because different species may _____.

- A. have different nutritional needs
- B. lack the same nutrient
- C. be active at the same time
- D. have similar tolerance

The correct answer is option [A]

76. The pancreatic duct opens into the _____.

- A. caecum
- B. colon
- C. ileum
- D. duodenum

The correct answer is option [D]

Pancreatic juice is secreted into the duodenum through the pancreatic duct.

77. Aquatic green plants obtain carbon (iv) oxide from dissolved _____ in water.

- A. air
- B. chemicals
- C. solids
- D. none of the above

The correct answer is option [A].

78. In a yam plant, where is the food stored?

- A. Stem
- B. Bud
- C. Adventitious roots
- D. Leaves

The correct answer is option [A]

79. Which of the following is not a step involved in light reaction of photosynthesis?

- A. Photolysis of water
- B. Transfer of hydrogen by NADP
- C. ATP formation
- D. ADP formation

The correct answer is option [D].

80. Which of the following organisms is a chemoautotroph?

- A. Virus
- B. Bacteria
- C. Paramecium
- D. Euglena

The correct answer is option [B]

81. Which of the following elements is required in large amounts by plants?

- A. Molybdenum
- B. Boron
- C. Copper
- D. Phosphorus

The correct answer is option [D]

82. Which of the following substances has the highest amount of energy in joules per unit weight?

- A. Carbohydrates
- B. Proteins
- C. Fats
- D. Vitamins

The correct answer is option [C]

83. Cretinism is caused by the deficiency of _____.

- A. adrenaline
- B. vitamin A
- C. insulin
- D. thyroxine

The correct answer is option [D]

Cretinism is a congenital condition due to thyroid hormone deficiency during fetal development and marked in childhood by dwarfed stature, mental retardation, dystrophy of the bones and a low basal metabolism.

84. The chloroplast in Spirogyra is spiral in shape while in Zygnema, it is _____ shaped.

- A. square
- B. disc

- C. star
- D. round

The correct answer is option [C].

85. Which of these is the terminal portion of the alimentary canal of a mammal?

- A. Oesophagus
- B. Stomach
- C. Rectum
- D. Colon

The correct answer is option [C]

86. The part of the digestive system of a bird where grinding of maize occurs is the _____.

- A. crop
- B. stomach
- C. gizzard
- D. cloacae

The correct answer is option [C]

The gizzard is a strong muscular bag with small stones in it that help to grind food.

87. In an experiment to test for photosynthesis, why is the green leaf tested for starch and not glucose?

- A. The glucose is used up immediately to provide energy for the needs of the leaf.
- B. The glucose formed is converted to starch.
- C. Starch is stored only in leaves.
- D. There are no chemicals for glucose test for leaves.

The correct answer is option [B]

By storing glucose as starch, the plant does not upset the osmotic balance of its cells. Starch is broken down into glucose when needed by the organism or its embryo.