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CHAPTER ONE

VARIETY OF ORGANISMS

LIVING ORGANISM

1. The organ which is sensitive to light in Euglena is the

- A gullet
- B flagellum
- C chloroplast
- D eyespot

UTME 2013

2. The organelles present in cells that are actively respiring and photosynthesizing are

- A lysosomes and ribosomes
- B Golgi apparatus and endoplasmic reticulum
- C nucleus and centrioles
- D mitochondria and chloroplast

UTME 2013

3. Which of the following is the simplest living organism?

- A Paramecium
- B Virus
- C Amoeba
- D Chlamydomonas

UTME 2013

4. The lowest level of organization in living organisms is

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

UTME 2013

5. Which of the following is the most complex according to their cellular level of organization?

- A Heart
- B Hair
- C Euglena
- D Hydra

UTME 2014

6. An example of an organ of perennation in plants is

- A rhizome
- B seed
- C petal of a flower
- D calyx of flower

UTME 2014

7. The lowest unit of classification is the

- A class
- B genus
- C phylum
- D species

UTME 2015

8. One of these is present in both plant and animal cell?

- A Cell membrane
- B Cell wall
- C Chloroplast
- D Large cell vacuole

UTME 2015

9. The part of cell that is responsible for the production of energy is

- A cell membrane
- B cytoplasm
- C mitochondrion
- D nucleus

UTME 2015

10. The level of organization of Amoeba and Euglena cell is _____?

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

UTME 2017

11. The cytoplasm of a cell is considered a very important component because it

- A regulates the amount of energy in the cell
- B suspends all cell organelles
- C is the outermost part of the cell
- D is solely responsible for cell

UTME 2018

12. DNA in eukaryotic cells is contained in the

- A central vacuole
- B nucleus
- C lysosome
- D golgi body

UTME 2018

ANSWERS

1.D 2. D 3. B 4. B 5.B 6. A 7. D 8.B 9.C 10.C 11. B 12. B

CHAPTER TWO

EVOLUTION AMONG ORGANISM

13. Which of the following describes a characteristic of arthropods?

- A The organism finds it easy to grow freely
- B the organism has a pair of jointed appendages
- C the body is not divided into a number of segments Seg
- D the body is covered by chitin

UTME 2013

14. Which of the following distinguishes a butterfly from a moth?

- A the wings of butterfly rest horizontally but those of moth rest vertically
- B Both are active during the day
- C they have similar antennae
- D the abdomen of moth is fatter than that of butterfly

UTME 2013

15. Which of the following organisms is multicellular?

- A Chlamydomonas
- B Spirogyra
- C Amoeba
- D Euglena

UTME 2014

16. Alternation of generation is a feature shown in

- A mosses
- B fungi
- C grasses
- D conifers

UTME 2014

17. The earliest form of life in animal kingdom is the

- A class Insecta
- B amphibian
- C aves pisces
- D reptilian

UTME 2015

18. Which of the following is not a monocotyledonous seed?

- A cowpea
- B maize
- C millet
- D wheat

UTME 2015

19. The following group of plants is the most advanced except

- A bryophyte
- B pteridophyta
- C spermatophyte
- D thallophytic

UTME 2015**20. Angiosperms belong to the class**

- A bryophyte
- B pteridophyta
- C spermatophyte
- D thallophytic

UTME 2015**21. The following animals is an invertebrate except**

- A flat worms
- B round worms
- C chordate
- D protozoan

UTME 2015**22. The scientific study of life is**

- A Botany
- B Biology
- C Zoology
- D Ecology

UTME 2015

23. Seed plants are divided into

- A. monocotyledons and dicotyledons
- B. tracheophytes and ferns
- C. angiosperms and gymnosperms
- D. thallophytes and bryophytes

UTME 2016

24. In which of the following groups of vertebrates is parental care mostly exhibited?

- A. Aves
- B. Reptilia
- C. Amphibia
- D. Mammalia

UTME 2016

25. A bacteria that is spherically shaped is called?

- A. diplobacillus
- B. coccus
- C. bacillus
- D. vibrio

UTME 2017

26. Which of the following groups of organisms has kidney as the excretory organ?

- A. Fishes, amphibians, birds, man
- B. Fishes, amphibians, annelids, insects
- C. Fishes, reptiles, birds, tapeworm
- D. Fishes, protozoans, amphibians, man

UTME 2018

27. The four classes of cnidarian include the following except

- A. Turbellaria
- B. Anthozoa
- C. Scyphozoa
- D. cubozoa

UTME 2018

ANSWERS

13. D 14. D 15. B 16. A 17. C 18. A 19. C 20. A 21. D 22. B 23. C 24. D 25. B 26. A 27. A

CHAPTER THREE

STRUCTURAL/FUNCTIONAL AND BEHAVIORAL ADAPTATIONS OF ORGANISMS

28. Which of the following types of feathers is used for flight in birds?

- A Quill
- B Filoplume
- C covert
- D Down

UTME 2013

29. Proboscis is a structure that is mostly found in

- A insects
- B tapeworms
- C amphibians
- D molluses

UTME 2013

30. The structural adaptation of desert plants for water conservation is

- A broad leaves with numerous stomata
- B spongy mesophyll
- C spiny leaves
- D prominent stomata in leaves

UTME 2013

31. The long and sharp clawed feet of birds is an adaptation for

- A crushing seeds
- B scooping mud
- C tearing flesh
- D grasping prey

UTME 2013

32. Physiological adaptation to very dry conditions in animals demonstrates

- A rejuvenation
- B xeromorphism
- C hibernation
- D aestivation

UTME 2013

33. The behavioural adaptation in social insects could best be described as

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

UTME 2013

34. Which of the following is an aboreal organism?

- A Elephant
- B Fish
- C Antelope
- D Bird

UTME 2014

35. The stream-lined shape of fishes is an adaptation for

- A Securing mates
- B easy movement
- C obtaining food
- D defence and attack

UTME 2014

36. Adaptive radiation is illustrated in

- A Modified insect mouthparts
- B dentition in mammals
- C wings in birds and bats
- D appendages in insects

UTME 2014

37. Behavior conditioning was described by

- A Felix Dujartin
- B Gregormendel
- C Ivan pavlov
- D Mathias schnelden

UTME 2015

38. Which of the following pairs are social insects?

- A Termite and locust
- B Ants and wasp
- C Cockroach and bee
- D Termite and bee

UTME 2016

39. The importance of the mouth-brooding behaviour in Tilapia is that it

- A helps in keeping the young fish warm
- B affords protection from predation for the young fish
- C helps the fish to live in a social group
- D provides regurgitated nourishment to the young fish

UTME 2016

40. The lungs of the lung fish is an adaptation for respiration _____?

- A to complement gills while in water
- B to complement gills while on land
- C while on land
- D while in water

UTME 2017

41. An animal which is active during the day is known as a

- A nocturnal animal
- B diurnal animal
- C terrestrial animal
- D homothermic animal

UTME 2018**42. Physiological adaptation to very dry conditions in animal demonstrates**

A Xeromorphism

B Hibernation

C Aestivation

D Rejuvenation

UTME 2018

ANSWERS

28.A 29. A 30.C 31. D 32. D 33.A 34. D 35.B 36. A 37.C 38. D 39. B 40.C 41. B 42.A

CHAPTER FOUR

FORMS AND FUNCTIONS OF ORGANISMS/INTERNAL STRUCTURE OF FLOWERING PLANT

43. In vascular plants, the sieve tubes and companion cells are present in the

A cambium

B cortex

C xylem

D phloem

UTME 2014

ANSWERS

43. D

CHAPTER FIVE

NUTRITION

44. The process in which complex substances are broken down into simpler ones is referred to as

- A. anabolism
- B. catabolism
- C. metabolism
- D. tropism

UTME 2013

45. During the manufacture of food by plants, which of the following organism use energy from the sun?

- A. anabaena
- B. sulfur bacteria
- C. nitrosomonas sp
- D. nitrobacter sp

UTME 2013

46. The enzyme that is present in the saliva is

- A. rennin
- B. lipase
- C. pepsin
- D. ptyalin

UTME 2013

47. Fungi are referred to as hetotrophs because they

- A. are filamentous
- B. lack chlorophyll
- C. have mycelium
- D. lack roots

UTME 2013

48. $i2/1$, $c0/0$, $pm3/2$, $m3/3$.

The general formula above represent that of

- A. an omnivore
- B. a detritus feeder
- C. a carnivore
- D. a herbivore

UTME 2014

49. The by-product of photosynthesis is

- A. CO_2
- B. O_2
- C. $C_6H_{12}O_6$
- D. H_2O

UTME 2015

50. The deficiency of vitamin D leads to

- A. beriberi
- B. pellagra
- C. ricket
- D. scurvy

UTME 2015

51. The breaking down of food in the alimentary canal is called

- A. digestion
- B. egestion
- C. excretion
- D. ingestion

UTME 2015

52. Which of the following is the end product of the digestion of oil

- A. glucose
- B. Glycerol
- C. amino acid
- D. glycogen

UTME 2015

53. The removal of remnant particles of digestion from the body is called

- A. assimilation
- B. egestion
- C. elimination
- D. excretion

UTME 2015

54. Enzyme ptyalin acts on starch in the

- A. oesophagus
- B. large intestine
- C. mouth
- D. stomach

(UTME 2015)

55. Which of the following conditions is NOT necessary for photosynthesis to take place?

- A. Chlorophyll
- B. Light
- C. Carbon(II)oxide
- D. Carbon(IV)oxide

UTME 2016

56. What is the primary function of cofactors?

- A. To aid in enzyme function
- B. To synthesize enzymes
- C. To inhibit enzymes
- D. To break down old enzymes

UTME 2017

57. The type of nutrition exhibited when organism lives on the body surface or inside the body of another type of organism is

- A. Holozoic
- B. parasitic
- C. saprophytic
- D. carnivores

UTME 2017

58. What organelle is the site of photosynthesis in plants?

- A. Chloroplasts
- B. Ribosomes
- C. Cytoplasm
- D. Mitochondria

UTME 2017

59. A beaker of pond water containing few specimens of Euglena was placed in a dark room for two weeks. At the end of this period, the specimens of Euglena were still alive because they were

- A. able to carry out holozoic nutrition
- B. able to carry out photosynthesis using carbon dioxide in the pond water
- C. better adapted to life in darkness than to life in light
- D. not overcrowded

UTME 2018

60. An organism which exhibits extracellular digestion is

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

UTME 2018

ANSWERS

44.D 45. D 46.B 47. A 48.C 49. A 50.C 51. D 52.D 53.C 54.B 55. B 56. A 57.B 58. A 59.A 60. D

CHAPTER SIX

TRANSPORT

61. Movement of minerals and chemical compounds with a plant occurs during

- A. osmosis
- B. translocation
- C. transpiration
- D. diffusion

UTME 2013

62. Which blood cell are involved in the immune response of vertebrates?

- A. Phagocytes
- B. lymphocytes
- C. erythrocytes
- D. monocytes

UTME 2013

63. The blood circulatory system of vertebrates consists of

- A. heart, arteries, capillaries and veins
- B. heart, aorta, capillaries and veins
- C. heart, aorta, arteries and veins
- D. heart, vena cava, arteries, and veins

UTME 2013

64. A plant tissue that carries water and mineral salts is the

- A. cambium
- B. xylem
- C. cortex
- D. phloem

UTME 2013

65. Which of the following helps in the clotting of blood?

- A. Red blood cells
- B. White blood cells
- C. Plasma
- D. Platelets

UTME 2013

66. Which of the following forms about 55% of the volume of the blood in man?

- A. leucocytes
- B. platelets
- C. plasma
- D. erythrocytes

UTME 2013

67. The clumping together of red blood cells is

- A. agglutination
- B. fussion
- C. transfusion
- D. compatibility

UTME 2013

68. A circulatory system is very essential in mammals but not in smaller organisms like Amoeba because

- A. Amoeba lives in freshwater
- B. Diffusion is sufficient to transport materials in Amoeba
- C. Amoeba lacks blood containing haemoglobin
- D. Amoeba exhibits anaerobic respiration

UTME 2014

69. Water in plants is removed as water vapour through the process of

- A. diffusion
- B. osmosis
- C. evaporation
- D. transpiration

UTME 2014

70. When the solute concentration of the cell and its surrounding medium are the same, the solution is said to be

- A. hypertonic
- B. hypotonic
- C. isotonic
- D. acidic

UTME 2015

71. The artery supplying the liver with blood is called

- A. hepatic
- B. mesenteric
- C. renal
- D. subclavian

UTME 2015

72. White blood cells are also known as

- A. erythrocytes
- B. leucocytes
- C. lymphocytes
- D. phagocytes

UTME 2015

73. The movement of blood between the heart and all other parts of the body besides the lung is known as

- A. Double circulatory system
- B. Pulmonary system
- C. Single circulation
- D. Systemic circulation

UTME 2016

74. Fibrinogen and prothrombin play important roles in the

- A. deamination of proteins
- B. clotting of blood
- C. detoxication of substances
- D. storage of vitamins

UTME 2016

75. Which of the following can cause shrinkage of living cells?

- A. Deionized water
- B. Hypotonic solution
- C. Isotonic solution
- D. Hypertonic solution

UTME 2016

76. Agglutination is the _____ of the _____

- A. coagulation, white blood cell
- B. coagulation, water
- C. white blood cells, red blood cell
- D. coagulation, red blood cell

UTME 2017

77. Erythrocytes are known as _____

- A. white blood cell
- B. red blood cells
- C. phagocytes
- D. leucocytes

UTME 2017

78. Red blood cells were found to have burst open after being placed in distill for an hour. This phenomenon is known as

- A. plasmolysis
- B. diffusion
- C. haemolysis
- D. wilting

UTME 2018

79. The reason why the flow of blood through the capillaries is very slow is

- A. because the walls of Capillaries are very thin
- B. to avoid high blood pressure
- C. to ensure that the individual does not get dizzy
- D. to allow adequate time for exchange of materials

UTME 2018

80. Which of the following features is not a characteristic of arteries?

- A. possess valves at intervals throughout their length
- B. have thick muscular and elastic walls
- C. carry blood away from the heart
- D. transport oxygenated blood with the exception of the pulmonary artery

UTME 2018

81. What is the function of contractile vacuole in paramecium

- A. Produces Enzymes
- B. Gets rid of excreta
- C. Stores and digests food
- D. Gets rid of excess water

UTME 2018

82. Blood circulation in a mammal is said to be double because

- A. It passes twice through the heart in a complete circuit
- B. It moves in both arteries and veins
- C. It circulates in both the hands and other organs
- D. The heart contains auricles and ventricles

UTME 2018

ANSWERS

61. B 62. B 63. A 64. A 65. D 66. C 67. A 68. B 69. D 70. C 71. A 72. C 73. D 74. B 75. A 76. D
77. B 78. C 79. D 80. A 81. B 82. A

CHAPTER SEVEN

RESPIRATION

83. The process of transforming the chemical energy of cellular fuels into the high energy bonds of ATP in plants is

- A. autotrophism
- B. photosynthesis
- C. photolysis
- D. respiration

UTME 2013

84. The use of moist skin for respiration in amphibians is known as

- A. cellular respiration
- B. cutaneous respiration
- C. buccal respiration
- D. pulmonary respiration

UTME 2014

85. The following parts are involved in breathing process, except

- A. mouth
- B. nostrils
- C. ribs
- D. diaphragm

UTME 2015

86. Gaseous exchange in the lungs takes place in the

- A. alveoli
- B. bronchi
- C. bronchioles
- D. trachea

UTME 2015

87. In eukaryotic cells, cellular respiration takes place in the

- A. nucleus
- B. cytoplasm
- C. centrioles
- D. mitochondrion

UTME 2015

88. The sequence of the one-way gaseous exchange mechanism in a fish is

- A. gills → operculum → mouth
- B. mouth → gills → operculum
- C. mouth → operculum → gills
- D. operculum → mouth → gills

UTME 2016

89. The path followed by air as it passes through the lungs in mammals is

- A. bronchi → trachea → alveoli → bronchioles
- B. bronchioles → alveoli → bronchi → trachea
- C. trachea → bronchi → bronchioles → alveoli
- D. trachea → bronchioles → bronchi → alveoli

UTME 2016

90. The most efficient respiratory structure used by free living protozoan is

- A. body surface
- B. gills
- C. buccal cavity
- D. spiracle

UTME 2017

91. The overall reaction in glycolysis can be summarised as

- A. $C_6H_{12}O_6 \rightarrow C_6H_{12}O_6 + 4H + ATP$
- B. $C_6H_{12}O_6 \rightarrow 2C_3H_4O_3 + 4H + 2ATP$
- C. $C_6H_{12}O_6 \rightarrow 2C_3H_4O_3 + 4H + ADP$
- D. $C_6H_{12}O_6 \rightarrow 2C_3H_4O_3 + 4H + 2ADP$

UTME 2018

92. Which of the following processes removes carbon from the atmosphere?

- A. putrefaction
- B. photosynthesis
- C. volcanic eruption
- D. burning of fuels

UTME 2018

ANSWERS

83. D 84. B 85. A 86. C 87. D 88. B 89. A 90. A 91. B 92. B

CHAPTER EIGHT

EXCRETION

93. The part of the mammalian skin involved in excretion is the

- A. sweat gland
- B. Malpighian layer
- C. sebaceous gland
- D. horny layer

UTME 2013

94. Which of the following is a waste product of an insect?

- A. Alkaloids
- B. Uric acid
- C. Sweat
- D. Mucilage

UTME 2013

95. Which organ removes the largest amount of excess water from the body?

- A. Liver
- B. Lung
- C. Kidney
- D. skin

UTME 2015

96. One of these is used for excretion in earthworm

- A. Contractile vacuole
- B. Flame cell
- C. Malpighian tubule
- D. Nephridium

UTME 2015

97. In the kidney, both useful substances and wastes are removed from the blood by

- A. Filtration
- B. selective absorption
- C. dialysis machine
- D. excretion

UTME 2015

98. The basic functional unit of the kidney is the

- A. nephron
- B. bowman's capsule
- C. glomerulus
- D. loop of henle

UTME 2015

99. Which of the following organs regulates the levels of water, salts, hydrogen ions, and urea in the mammals?

- A. Kidney
- B. Colon
- C. Bladder
- D. Liver

UTME 2016

100. The flame cells are used for excretion in

- A. Fluke
- B. Nematode
- C. Bacteria
- D. Volvox

UTME 2017

ANSWERS

93.B 94. B 95.A 96. A 97.D 98. A 99.A 100. A

CHAPTER NINE

SUPPORT AND MOVEMENT

101. The main structure in vertebrates that supports and protects the body is the

- A. skeleton
- B. ligament
- C. muscle
- D. joint

UTME 2013

102. The chitin in the exoskeleton of many arthropods is strengthened by

- A. lids
- B. proteins
- C. calcium compounds
- D. organic salt

UTME 2013

103. Which of the following serves as the brain box in man

- A. skeleton
- B. skull
- C. head
- D. spinal column

UTME 2015

104. The movement response of a cockroach away from a light source is

- A. negative phototropism
- B. positive phototaxis
- C. negative phototropism
- D. positive phototropism

UTME 2016

105. The appendicular skeleton comprises of

- A. pectoral and pelvic girdles
- B. forelimbs, skull and pectoral girdle
- C. lungs and ribs
- D. skull and the vertebral column

UTME 2017

106. The curvature movement of plants in response to the stimulus of water is called

- A. hydrotropism
- B. geotropism
- C. Phototropism
- D. thigmotropism

UTME 2018

107. The longest bone in the body is the

- A. humerus
- B. femur
- C. scapula
- D. tibia

UTME 2018

108. Which of the following structures is not a skeletal material?

- A. Chitin
- B. Cartilage
- C. Bone
- D. Muscle

UTME 2018

ANSWERS

101.A 102.C 103.B 104. A 105. A 106. A 107.B 108. D

CHAPTER TEN

REPRODUCTION

109. The transfer of pollen grains from the anther to a stigma is

- A. propagation
- B. placentation
- C. pollination
- D. fertilization

UTME 2013

110. The male reproductive organ of a flower is the

- A. carpel
- B. stamen
- C. petal
- D. sepal

UTME 2013

111. In bryophytes, sex organs are produced in the

- A. protonema
- B. sporophyte
- C. gametophyte
- D. rhizoid

UTME 2014

112. When the adults have reach a certain degree of weakness, the process of binary fission is replaced by conjugation in

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

UTME 2014

113. Which of the following is not part of the mammalian male reproductive organ?

- A. Epididymis
- B. Vas deferens
- C. testis
- D. Vulva

UTME 2015

114. The following animals are viviparous expect

- A. Cow
- B. Dog
- C. Goat
- D. Pigeon

UTME 2015

115. Another name for a fertilized egg is a

- A. placenta
- B. zygote
- C. foetus
- D. ovum

UTME 2015

116. The part that supplies food from the mother to the foetus is

- A. Amnion
- B. Chorion
- C. Umbilical Cord
- D. Placenta

UTME 2015

117. An example of an endospermous seed is

- A. bean seed
- B. cashew nut
- C. cotton seed
- D. maize grain

UTME 2016

118. The arrangement of ovules attached to the sides of a syncarpous ovary with a single chamber is referred to as

- A. free-central placentation
- B. axile placentation
- C. parietal placentation
- D. marginal placentation

UTME 2016

119. The matured sex cell which takes part in sexual reproduction is referred to as

- A. gamete
- B. fetus
- C. embryo
- D. zygote

UTME 2017

120. When an ovary is placed on the receptacle above the other floral parts it is referred to as

- A. half inferior ovary
- B. superior ovary
- C. inferior ovary
- D. half superior ovary

UTME 2017

121. The product after the union of the male and female gamete in animals is called

- A. sperm
- B. egg
- C. embryo
- D. zygote

UTME 2017

122. Cytokinesis of mitosis is a process that ensures that

- A. each daughter cell gets the necessary organelles
- B. there is distribution of a complete set of genes into each daughter cell
- C. daughter cell inherit new genetic combinations
- D. worn out organelles are excluded from daughter cells

UTME 2018

123. How many days does is used for incubation of an egg to release chick

- A. 21
- B. 22
- C. 20
- D. 23

UTME 2018

124. The temporary union of two organisms and the exchange of micronuclear elements is called

- A. Conjugation
- B. Binary fusion
- C. Extrapolation
- D. Interexchange

UTME 2018

ANSWERS

109.C 110. B 111.C 112. A 113.D 114. D 115.B 116. D 117.D 118.C 119.D 120. B 121.D 122.B 123. A 124.A

CHAPTER ELEVEN

GROWTH

125. i. Growth is mainly apical ii. Growth is specific with definite shape iii. Growth is throughout life.

Which of the above correctly describes the growth pattern in plants?

- A. i, ii and iii only
- B. ii and iii only
- C. i and ii only
- D. i and iii only

UTME 2014

126. A seed of a flowering plant can best be described as

- A. radicle and plumule
- B. the developed ovule
- C. the embryo and endosperm
- D. developed ovary

UTME 2018

ANSWERS

125. D 126. B

CHAPTER TWELVE

COORDINATION AND CONTROL

127. The gland that is found just below the

hypothalamus is the

- A. parathyroid
- B. adrenal
- C. pituitary
- D. thyroid

UTME 2013

128. The most important plant hormone is

- A. cytokinin
- B. abscisic acid
- C. auxin
- D. gibberellin

UTME 2013

129. The sensory cell that responds to dim light is referred to as the

- A. cone
- B. lens
- C. rod
- D. iris

UTME 2013

130. Oestrogen is a hormone that is synthesized in the

- A. ovaries
- B. testes
- C. anterior pituitary
- D. adrenal cortex

UTME 2013

131. The eye defect cause by the development of cloudy areas in the lenses is

- A. presbyopia
- B. glaucoma
- C. cataract
- D. astigmatism

UTME 2013

132. Coordination and regulation of body activities in mammals are achieved by the

- A. nerves and muscle
- B. nerves and hormones
- C. nerves only
- D. hormones only

UTME 2014

133. The Cerebellum of the Brain controls

- A. Reflex Action
- B. Muscular Activity
- C. Emotional Expressions
- D. the Endocrine System

UTME 2014

134. The part of the brain responsible for peristalsis is The

- A. Olfactory Lobe
- B. Medulla Oblongata
- C. Hypothallamus
- D. Thalamus

UTME 2014

135. The light sensitive cells in the human eye is called the

- A. Choroid
- B. Sclerotic layer
- C. retina
- D. cones

UTME 2015

136. Which of the following hormonal glands is located on top of the kidney?

- A. Adrenal
- B. gonads
- C. pancreas
- D. thyroid

UTME 2015

137. The gland that releases hormones into the blood are part of the

- A. digestive system
- B. endocrine system
- C. circulatory system
- D. respiratory system

UTME 2015

138. One of the following is called emergency hormone in man.

- A. Adrenalin
- B. Prolactin
- C. Testosterone
- D. Thyroxine

UTME 2015

139. Hormones that help regulate blood calcium levels are produced by the

- A. Adrenal
- B. thyroid
- C. pancreas
- D. parathyroid

UTME 2015

140. Which of these is not detected by the nerve endings of the skin?

- A. cold
- B. pain
- C. pressure
- D. weakness

UTME 2015

141. Which of these is not the part of the eye?

- A. Cochlea
- B. Conjunctiva
- C. Cornea
- D. Iris

UTME 2015

142. The following are ductless glands except

- A. adrenal
- B. pancreatic
- C. parathyroid
- D. salivary

UTME 2015

143. Which of the following plant hormone is responsible for ripening of fruits?

- A. Gibberellins
- B. Absciscic acid
- C. Ethylene
- D. Cytokinins

UTME 2016

144. A boy who is fond of swimming in a pond finds himself passing urine with traces of blood. He is like to have contracted?

- A. schistosomiasis
- B. onchocerciasis
- C. poliomyelitis
- D. salmonellosis

UTME 2018

145. The hormones secreted by pancreas serves to

- A. Facilitate the development of facial hairs
- B. Raise the level of calcium in the blood
- C. Lower blood glucose level
- D. Make the body react to emergencies

UTME 2018

ANSWERS

127.C 128.C 129.C 130.A 131.C 132.B 133.A 134.B 135.B 136. A 137. B 138.A 139.D 140. D 141. A
142.D 143.C 144. A 145.C

CHAPTER THIRTEEN

ECOLOGY

146. Taenia solium can be found in

- A. cow
- B. goat
- C. dog
- D. pig

UTME 2013

147. The plants that grow in deserts or very dry areas are referred to as

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

UTME 2013

148. Plants that have special devices for trapping and digesting insects are

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

UTME 2013

149. An example of a parasitic protozoan is

- A. Paramecium
- B. Plasmodium
- C. Euglena
- D. Chlamydomonas

UTME 2013

150. A pollutant that is biodegradable is

- A. crude oil
- B. heavy metals
- C. cellophane
- D. sewage

UTME 2013

151. Which of the following instruments is used for measuring atmospheric pressure?

- A. Hydrometer
- B. Hygrometer
- C. Thermometer
- D. Barometer

UTME 2014

152. Which of the following group of organisms feeds directly on green plants?

- A. Primary Consumers
- B. Secondary Consumers
- C. Producers
- D. Decomposers

UTME 2014

153. A characteristic feature of tropical rainforest is that it

- A. Contains trees with narrow leaves
- B. Contains large number of plant species
- C. Contains fewer number of plant species
- D. Has total annual rainfall of less than 50cm

UTME 2014

154. The study of how and why population size change over time is

- A. Population estimation
- B. Population dynamics
- C. Population ecology
- D. Population Cycle

UTME 2014

155. A severe and long dry season is a characteristic feature of

- A. Sahel Savanna
- B. Mangrove Swamps
- C. Sudan Savanna
- D. Guinea Savanna

UTME 2014

156. Which of the following is a nitrogen-fixing blue-green algae of soil?

- A. Rhizobium
- B. Nitrosomonas
- C. Clostridium
- D. Anabaena

UTME 2014

157. The soil with highest water-retaining capacity is

- A. Clayey Soil
- B. Stony soil
- C. Sandy soil
- D. Loamy Soil

UTME 2014

158. The causative agent of Poliomyelitis is

- A. Virus
- B. Fungus
- C. Protozoan
- D. Bacterium

UTME 2014

159. One of the ways of controlling noise pollution in urban areas is

- A. by siting industries away from residential areas
- B. that fuel should be completely combusted by engines
- C. by planting trees on both sides of the road
- D. by wearing ear devices

UTME 2014

160. A constituent of the exhaust fumes from electricity generating sets which causes serious pollution is

- A. Carbon (II) Oxide
- B. Water Vapour
- C. Ozone
- D. Carbon (IV) Oxide

UTME 2014

161. Which of the following is true of small pox?

- A. It is transmitted by bacteria
- B. It can effectively be controlled with antibiotics
- C. It can effectively be controlled by vaccination
- D. It is a water-borne infection

UTME 2014

162. A group of organisms of the same kind inhabiting the same environment is called

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

UTME 2015

163. The primary consumer in the food chain below is Green plants → Grasshopper → Lizard → Snake → Hawk

- A. Grass hopper
- B. green plants
- C. hawk
- D. lizard

UTME 2015

164. The following distrupts the balance in an ecosystem except

- A. afforestation
- B. deforestation
- C. migration
- D. pollution

UTME 2015

165. An association between bacteria and root nodules of legume is called

- A. Commercialism
- B. mutualism
- C. parasitism
- D. saprophytism

UTME 2015

166. Which of the following is not a pest of crops?

- A. Bird
- B. Rodent
- C. Bed bug
- D. Grasshopper

UTME 2015

167. Plants that survive in marine habitats are called

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

UTME 2015

168. which of the following is an agent of a sexually transmitted disease?

- A. Entamoeba histolytica
- B. Salmonella typhi
- C. Treponema pallidum
- D. Clostridium tetani

UTME 2016

169. The pathogen that cause smallpox is

- A. picornavirus
- B. peramyxovirus
- C. herpesvirus
- D. poxvirus

UTME 2016

170. The vector for the malaria parasite is a

- A. female edes mosquito
- B. female Anopheles mosquito
- C. female culex mosquito
- D. female culex mosquito

UTME 2016

171. Which of the following is NOT a method of conserving wild life?

- A. Indiscriminate poaching
- B. Establishment of zoological gardens
- C. Enacting wildlife conservation laws
- D. Establishment of game reserves

UTME 2016

172. In the nitrogen cycle, the nitrates in the soil are converted to atmospheric nitrogen by

- A. putrefying bacteria
- B. nitrogen-fixing bacteria
- C. nitrifying bacteria
- D. denitrifying bacteria

UTME 2016

173. The relationship between a termite and the protozoam in its intestine is described as

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

UTME 2016

174. Exo-erythrocytic phase of the life cycle of malaria parasite occurs in the

- A. liver of humans
- B. reticuloendothelial cells of humans
- C. Malphigian tubules of mosquito
- D. brain of humans

UTME 2016

175. An example of a non-bio degradable pollutants is

- A. dung
- B. bones
- C. ceramics
- D. woods

UTME 2016

176. The bacteria that is found in the root nodules of leguminous plants is

- A. clostridium
- B. rhizobium
- C. nostoc
- D. azotobacter

UTME 2016

177. In which of the following species is the biomass of an individual the smallest?

- A. Tilapia sp
- B. Agama sp
- C. Bufo sp
- D. Spirogyra sp

UTME 2016

178. The biome that is characterized with large herbivores, few and scattered fire resistant trees is

- A. savanna
- B. tropical rain forest
- C. montane forest
- D. desert

UTME 2017

179. The feeding relationship among a set of members of a community is referred to as _____?

- A. a food web
- B. pyramid of energy
- C. a food chain
- D. pyramid of member

UTME 2017

180. Nitrogen is released into the atmosphere when _____

- A. plants absorbs mineral salt
- B. sugar is completely broken down
- C. through plant uptake
- D. when lightning strike

UTME 2017

181. Which of the following scenarios is an example of cohesion?

- A. Water molecules stick to the surface of a mirror.
- B. Water sticks to the walls of blood vessels.
- C. Water molecules stay on the tip of a pine needle because the water is attracted to the surface of the needle.
- D. Water molecules stick to one another and form a bead

UTME 2017

182. Food chain refers to the feeding relationships between animals in a _____?

- A. Family
- B. phylum
- C. community
- D. group

UTME 2017

183. The Protista that is a producer is an aquatic food chain is

- A. trypanosome
- B. paramecium
- C. Chlamydomonas
- D. amoeba

UTME 2017

184. Carbon (iv) oxide is added to the atmosphere when _____?

- A. plants build-up organic compounds
- B. plants absorb mineral salts
- C. sugars are completely broken down in animals
- D. there is thunderstorm

UTME 2017

185. The host of liver fluke are _____?

- A. pig and snail
- B. pig and sheep
- C. sheep and snail
- D. pig

UTME 2017

186. Which of the following factors can reduce the population of a community?

- A. Immigration
- B. edaphic
- C. predation
- D. mutualism

UTME 2017

187. Which of the following cycles involves the process of precipitation and transpiration?

- A. water cycles
- B. carbon cycle
- C. nitrogen cycle
- D. oxygen cycle

UTME 2018

188. What is the critical limiting factor for plants below the photic zone in an aquatic ecosystem?

- A. availability of nutrients
- B. availability of water
- C. intensity of light
- D. carbon dioxide concentration

UTME 2018

189. Which of the following instruments is used to estimate the number of plants in a habitat?

- A. pooter
- B. pitfall trap
- C. quadrant
- D. sweep net

UTME 2018

190. Which of the following statements is true about sandy soil?

- A. has limited air space
- B. is light and easy to dig
- C. drains slowly
- D. is heavy and poorly aerated

UTME 2018

191. Which of the following organisms is a primary consumer?

- A. dog
- B. sheep
- C. grass
- D. fungus

UTME 2018

192. Study the diagram of a food chain shown and use; it to answer the question.

P ----> Q ----> R ----> S ----> T

The organism designated P in the food chain above is normally sustained by energy from

- A. sunlight
- B. carbohydrates
- C. green plants
- D. mineral salts

UTME 2018

193. Study the diagram of a food chain shown and use; it to answer the question.

P ----> Q ----> R ----> S ----> T

Which of the following statements best describes the organism designated R? It

- A. feeds on S
- B. is a primary consumer
- C. is a producer as well as a consumer
- D. is a secondary consumer

UTME 2018

194. A pollutant that is mostly associated with acid rain is

- A. Nitrogen (IV) oxide
- B. Ozone
- C. Flourine
- D. Carbony (IV) oxide

UTME 2018

195. The hygrometer is used for measuring

- A. Relative Humidity
- B. Specific Gravity
- C. Rainfall
- D. Salinity

UTME 2018

196. Which of the following relationship involves only one organism

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

UTME 2018

ANSWERS

146.D 147. D 148.A 149. B 150.D 151. D 152.A 153. B 154.C 155. A 156.D 157.A 158.A 159.A 160.A
161.C 162.C 163.A 164.A 165.B 166. C 167. B 168. C 169.D 170. B 171 A 172.D 173.C 174.A 175. C
176. B 177. D 178.A 179.C 180.D 181. D 182.C 183.C 184.C 185.C 186.A 187. A 188.C 189.C 190.B
191. B 192.A 193. A 194.A 195. A 196.A

CHAPTER FOURTEEN

HEREDITY AND VARIATION

197. To which blood group do universal recipients belong?

- A. B
- B. A
- C. O
- D. AB

UTME 2013

198. The special pigment for colour change in chameleon is

- A. melanin
- B. carotenoid
- C. chromatin
- D. chromatophore

UTME 2013

199. The genetic make-up of an organism is described as

- A. Allele
- B. Chromosome
- C. Phenotype
- D. Genotype

UTME 2014

200. Whorls, arches, loops and compounds are types of variation in

- A. Colour
- B. Finger prints
- C. Hair Colour
- D. Blood group

UTME 2014

201. A couple has 10 children, all female. Which of the following best explains the situation

- A. The sex determination was by the man's X chromosome
- B. The man's sperm count is low
- C. The woman is not capable of producing male children
- D. The sex determination was by the man's Y Chromosome

UTME 2014

202. One of the advantages of outbreeding is

- A. pest's tolerance
- B. disease resistance
- C. fast growth
- D. tall height

UTME 2014

203. An individual with blood group AB can receive blood from those in blood group(s)

- A. A, B, AB, O
- B. A, AB and O only
- C. AB only
- D. A and B only

UTME 2014

204. The ability of chemelon to change its colour rapidly is an adaptation for

- A. obtaining food
- B. attraction mate
- C. communication
- D. escaping detection

UTME 2016

205. The crossing of individuals of the same species with different genetic characters is

- A. croos breeding
- B. polygenic inheritance
- C. non-disjunctin
- D. inbreeding

UTME 2016

206. The hereditary characters in plants and animals are located on the

- A. gene
- B. nucleus
- C. chromosome
- D. cell

UTME 2016

207. When sickle cell carrier marries a normal woman, the probability of them having a normal offspring is

- A. 0.75
- B. 0.25
- C. 0.5
- D. 1

UTME 2016

208. Coloration of the eye is _____ variation

- A physiological
- B morphological
- C adaptive
- D recessive

UTME 2017

209. Size, colour and fingerprints are examples of _____

- A. physiological variation
- B. discontinuous variation
- C. morphological variation
- D. adaptive variation

UTME 2017

210. The modification in structure, physiology and behaviour of plant and animal is called _____

- A. adaption
- B. evolution
- C. variation
- D. succession

UTME 2017

211. The following are example of morphological variation except

- A. size
- B. ability to taste PTC
- C. color
- D. fingerprint

UTME 2017

212. Ability to taste PTC in some individuals is a character that is

- A. acquired
- B. heritable
- C. sex-linked
- D. morphological

UTME 2017

213. The difference in structure, morphological and behavior of plant and animal is called

- A. adaptation
- B. evolution
- C. variation
- D. succession

UTME 2017

214. Gregor Mendel is regarded as the father of _____

- A. variation
- B. genetics
- C. mycology
- D. natural selection

UTME 2017

215. Which of the following diseases is not hereditary?

- A. Albinism
- B. Scabies
- C. Haemophilla
- D. Colour blindness

UTME 2018

216. A man who is heterozygous for the disease haemophilia marries a woman who is double recessive for haemophilia. What percentage of their offspring would have the disease?

- A. 0%
- B. 25%
- C. 50%
- D. 75%

UTME 2018

217. An accurate identification of a rapist can be carried out by conducting

- A. RNA analysis
- B. DNA analysis
- C. blood group test
- D. behavioural tests

UTME 2018

ANSWERS

197.D 198. D 199.D 200. B 201.A 202. B 203.B 204. D 205.A 206.C 207.B 208. B 209.C 210. A
211.B 212. B 213.C 214. B 215.B 216.C 217.B

CHAPTER FIFTEEN

EVOLUTION/ EVIDENCE OF EVOLUTION

218. All living organisms are constantly involved in a struggle for existence. This was proposed by

- A. Morgan
- B. Darwin
- C. Lamarck
- D. Wallace

UTME 2014

219. The theory of survival of the fittest was propounded by

- A. Darwin
- B. Hooke
- C. Lamarck
- D. Linnaeus

UTME 2015

220. Which of the following theories was NOT considered by Darwin in his evolutionary theory?

- A. variation
- B. survival of the fittest
- C. use and disuse
- D. competition

UTME 2016

221. The theory of use and disuse of organs was promulgated by

- A. Alfred Wallace
- B. Charles Darwin
- C. Gene Lamarck
- D. Robert Hook

UTME 2016

222. The theory of natural selection was postulated by

- A. Gregor Mendel
- B. Matthias Schleiden
- C. Charles Darwin
- D. Robert Hook

UTME 2016

223. The flippers of a whale and the fins of a fish are examples of

- A. divergent evolution
- B. co-evolution
- C. continuous variation
- D. convergent evolution

UTME 2018

224. Evidence of evolution include the following except

- A. fossil records
- B. comparative anatomy
- C. mutation of genes
- D. geographical distribution of organisms

UTME 2018

ANSWERS

218.B 219. A 220.C 221.C 222.C 223. D 224.D