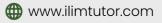


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#### **CHAPTER ONE**

#### **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

A lysosomes and ribosomes

B Golgi apparatus and endoplasmic reticulum

C nucleus and centrioles

D mitrochondria and chloroplast

#### **UTME 2013**

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

A Paramecium

**B Virus** 

C Amoeba

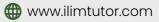
D Chlamydomonas





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













# 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

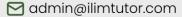
B nucleus

C lysosome

D golgi body









## **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**

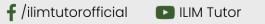
## 15. Which of the following organisms is multicellular?

A Chlamydomonas

**B** Spirogyra

C Amoeba

D Euglena







## 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 Insta

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 what

#### **UTME 2015**

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

A bryophyte

B pteridophyta

C spermatophyte

D thallophytic





# 20. Angiosperms belong to the class

A bryophyte

B pteredophyta

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







## 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

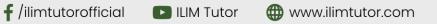


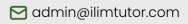


# 27. The four classes of cnidarian include the following except

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





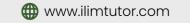




## **ANSWERS**

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









## 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













## 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

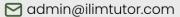
A Felix Dujartin

**B** Gregormendel

C Ivan pavlov

D Mathias schnelden







# 38. Which of the following pairs are social insects?

- A Termite and locust
- B Ants and wap
- 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 \_\_\_\_\_?

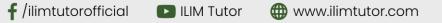
A to complement gills while in water

- 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 homortacmic animal









# 42. Physiological adaptation to very dry conditions in animal demonstrates

A Xeromorphism

**B** Hibernation

C Aestivation

D Rejuvenation





## **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





## **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**

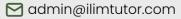
- 45. During the manufacture of food by plants, which of the following organism use energy from the sun?
- A. anabaena
- B. sulfur bacteria
- C. nitrosomonas sp
- D. nitrobacter sp

#### **UTME 2013**

- 46. The enzyme that is present in the saliva is
- A. rennin
- B. lipase
- C. pepsin
- D. ptyalin









# 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<sub>2</sub>
- B.  $O_2$
- C. C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>
- D. H<sub>2</sub>O











## 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











## 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**

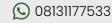
## 56. What is the primary function of cofactors?

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











# 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. saprohytic
- D. carnivores

#### **UTME 2017**

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

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

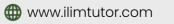
#### **UTME 2017**

# 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

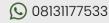
- A. able to carry out holozoic nutrition
- B. able to carry out photosynthesis using carbon dioxide in the pond water
- C. better adapted to life in darkness than to life in light
- D. not overcrowded













# 60. An organism which exhibits extracellular digestion is

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





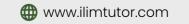




## **ANSWERS**

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. Phagoecytes
- 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









## 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













## 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 exibits anaerobic respiration

#### **UTME 2014**

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

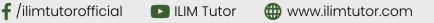
- A. diffusion
- B. osmosis
- C. evaporation
- D. transpiration

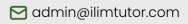
#### **UTME 2014**

## 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









## 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









## 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**

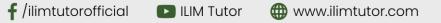
# 76. Agglutination is the \_\_\_\_\_ of the \_\_\_\_\_

- 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













# 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**

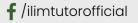
## 79. The reason why the flow of blood through the capillaries is very slow is

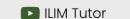
- A. because the walls of Capillaries are very thin
- B. to avoid high blood pressure
- C. to ensure that the individual does not get dizzy
- D. to allow adequate time for exchange of materials

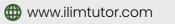
#### **UTME 2018**

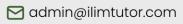
## 80. Which of the following features is not a characteristic of arteries?

- A. possess valves at internals 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













# 81. What it the function of contractile vacuole in paramecium

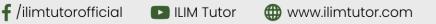
- A. Produces Enzymes
- B. Gets rid of excreta
- C. Stores and digest food
- D. Gets rid of excess water

#### **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









## **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. photosysnthesis
- 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











# 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 H O ----> C H O + 4H +ATP

B. C H O ----> 2C H O + 4H +2ATP

C. C H O ----> 2C H O + 4H +ADP

D. C H O ----> 2C H O + 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







## **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?

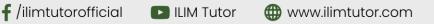
- A. Alkaloids
- B. Uric acid
- C. Sweat
- D. Mucilage

### **UTME 2013**

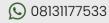
# 95. Which organ removes the largest amount of excess water from the body?

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











## 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











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

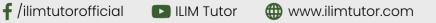
- A. Kidney
- B. Colon
- C. Bladder
- D. Liver

#### **UTME 2016**

### 100. The flame cells are used for excretion in

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









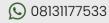
# **ANSWERS**

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











## **CHAPTER NINE**

#### **SUPPORT AND MOVEMENT**

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

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

#### **UTME 2013**

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

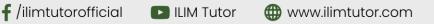
- A. lids
- B. proteins
- C. calcium compounds
- D. organic salt

## **UTME 2013**

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

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











# 104. The movement response of a cockroach awayfrom a light source is

- A. negative phototropism
- B. positive phototaxism
- C. negative phototropism
- D. postive 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











#### The longest bone in the body is the 107.

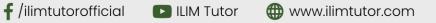
- A. humerous
- B. femur
- C. scapula
- D. tibia

### **UTME 2018**

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

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









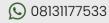
# **ANSWERS**

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











## **CHAPTER TEN**

#### **REPRODUCTION**

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

- 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









# 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?

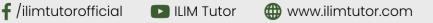
- A. Epididymis
- B. Vas deferens
- C. testis
- D. Vulva

#### **UTME 2015**

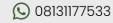
#### 114. The following animals are viviparous expect

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











#### Another name for a fertilized egg is a 115.

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

#### **UTME 2015**

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

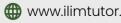
- A. Amnion
- B. Chorion
- C. Umbilical Cord
- D. Placenta

#### **UTME 2015**

# 117. An example of an endospermous seed is

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











#### 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**

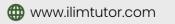
- 119. The matured sex cell which takes part in sexual reproduction is referred to as
- A. gamete
- B. fetus
- C. embryo
- D. zygote

#### **UTME 2017**

# 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











## 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**

#### Cytokinesis of mitosis is a process that ensures that 122.

- 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

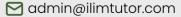
#### **UTME 2018**

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

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









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

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





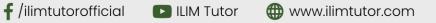




## **ANSWERS**

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**

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

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

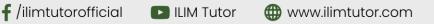
- A. i, ii and iii only
- B. ii and iii only
- C. i and ii only
- D. i and iii only

### **UTME 2014**

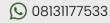
#### 126. A seed of a flowering plant can best be described as

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







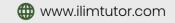




# **ANSWERS**

125. D 126. B









## **CHAPTER TWELVE**

#### **COORDINATION AND CONTROL**

#### The gland that is found just below the 127.

hypothalamus is the

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

### **UTME 2013**

#### The most important plant hormone is 128.

- 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











#### 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**

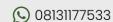
# 132. Coordination and regulation of body activities in mammals are achieved by

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











#### 133. The Cerebellum of the Brain controls

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

#### **UTME 2014**

## The part of the brain responsible for peristalsis is The

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

#### **UTME 2014**

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

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

#### **UTME 2015**

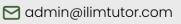
#### Which of the following hormonal glands is located on top of the kidney? 136.

- 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











#### 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

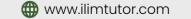
### **UTME 2015**

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

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













### **UTME 2016**

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

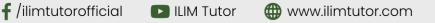
- A. schistosomiasis
- B. onchocerciasis
- C. poliomyelitis
- D. salmonellosis

### **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 toemergencies











## **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	ni k
---------------------------------	------

- 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

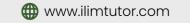
## **UTME 2013**

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

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











#### 149. An example of a parasitic protozoan is

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

## **UTME 2013**

# A pollutant that is biodegradable is

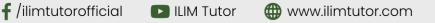
- A. crude oil
- B. heavy metals
- C. cellophane
- D. sewage

#### **UTME 2013**

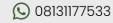
# Which of the following instruments is used for measuring atmospheric pressure?

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











# 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**

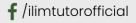
## 154. The study of how and why population size change over time is

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

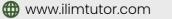
#### **UTME 2014**

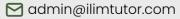
## 155. A severe and long dry season is a characteristic feature of

- 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**

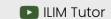
# 157. The soil with highest water-retaining capacity is

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

## **UTME 2014**

# 158. The causative agent of Poliomyelitis is

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











#### 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**

#### A constituent of the exhaust fumes from electricity generating sets which 160. 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







# 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 $\to$ Grasshopper $\to$ Lizard $\to$ Snake $\to$ Hawk

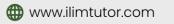
- A. Grass hopper
- B. green plants
- C. hawk
- D. lizard

## **UTME 2015**

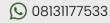
# 164. The following distrupts the balance in an ecosystem except

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











#### 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**

#### Plants that survive in marine habitats are called 167.

- 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

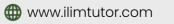
- A. female edes mosquito
- B. female Anopheles mosquito
- C. female culex mosquito
- D. female culex mosquito

#### **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







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

- A. puterfying 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. saproplytism
- C. symbiosis
- D. parasitism

#### **UTME 2016**

## 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









### An example of a non-bio degrable pollutants is 175.

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

## **UTME 2016**

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

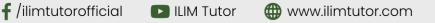
- A. clostridium
- B. rhizobium
- C. nostoc
- D. azotobacter

## **UTME 2016**

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

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





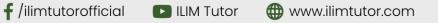




# The biome that is characterized with large herbivores, few and scattered fire resistant trees is

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



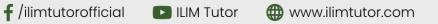






184. Carbon (iv) oxide is added to the atmosphere when?			
A. plants build-up organic compounds			
B. plants absorb mineral salts			
C. sugars are completely broken down in animals			
D. there is thunderstorm			
UTME 2017			
185. The host of liver flake are?			
A. pig and snail			
B. pig and sheep			
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**

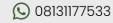
# Which of the following instruments is used to estimate the number of plants in a habitat?

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











### 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

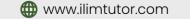
## **UTME 2018**

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

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









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

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







## Which of the following relationship involves only one organism 196.

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





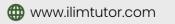




# **ANSWERS**

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	

C.O

B. A

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

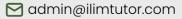
A. Allele

B. Chromosome

C. Phenotype

D. Genotype







### 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











# 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 colourrapidly 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







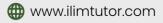


C adaptive

D recessive

B morphological



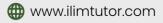


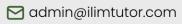




209. Size, colour and fingerprints are examples of			
A. physiological variation			
B. discontinuous variation			
C. morphological variation			
D. adaptive variation			
UTME 2017			
210. The modification in structure, physiology and behaviour of plant and animal is called			
A. adaption			
B. evolution			
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			









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

- 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

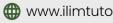
- A. adaptation
- B. evolution
- C. variation
- D. succession

# **UTME 2017**

### Gregor Mendel is regarded as the father of \_\_\_\_\_ 214.

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









# 215. Which of the following diseases is not hereditary?

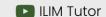
- A. Albinism
- **B.** Scabies
- C. Haemophilla
- D. Colour blindness

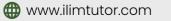
## **UTME 2018**

- 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





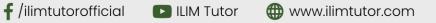




# **ANSWERS**

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	>
wo	s proposed by	

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

## **UTME 2014**

- The theory of survival of the fittest was propounded by ..... 219.
- A. Darwin
- B. Hooke
- C. Lamarck
- D. Linnaeus

# **UTME 2015**

- Which of the following theories was NOT considered by Darwin in his evolutionary theory?
- A. variation
- B. survival of the fitest
- C. use and disuse
- D. competition









### 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









## Evidence of evolution include the following except 224.

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











# **ANSWERS**

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

