

TOP 100+ BIOLOGY QUESTIONS FOR NDA I 2021

1. Which of the following are classified as prokaryotes?
 - A. Bacteria and Archaea
 - B. Bacteria and Protista
 - C. Archaea and Eukarya
 - D. Eukarya and Monera

2. _____ disease is caused by the deficiency of Niacin.
 - A. Scurvy
 - B. Pellagra
 - C. Rickets
 - D. Pernicious anemia

3. Which type of bond is present in protein?
 - A. Glycosidic
 - B. Peptide
 - C. Ester
 - D. Hydrogen

4. Which of the following is the function/ functions of the prostate gland?
 - A. To transfer sperms smoothly
 - B. To keep sperms alive
 - C. To help sperm swim vigorously
 - D. Both B & C

5. Classification of organisms as oxygenic or anoxygenic during photosynthesis is based on _____.
 - A. The presence of Co_2
 - B. The generation of oxygen
 - C. The presence of light
 - D. The presence of water

6. Which of the photosynthetic pigment is structurally similar to bile pigment bilirubin?

- A. Chlorophyll
- B. Carotene
- C. Xanthophyll
- D. Phycobilins

7. Which is responsible for Apical dominance?

- A. Cytokinin
- B. Auxin
- C. Gibberellin
- D. Ethylene

8. _____, type of anaerobic respiration, glucose is split into ethanol or ethyl alcohol?

- A. Lactic acid fermentation
- B. Solvent fermentation
- C. Alcoholic fermentation
- D. Stick land fermentation

9. _____ decreases the volume of the heart chamber and forces the blood out of them.

- A. Diastole
- B. Systole
- C. T-wave
- D. P-wave

10. Which of the following element is essential for the growth of the pollen tube?

- A. Iron
- B. Magnesium
- C. Calcium
- D. Cobalt

11. Different color of eyes depends on?

- A. Iris
- B. Cornea
- C. Pupil

D. Retina

12. The entry of food into the respiratory tract is prevented by?

- A. Tongue
- B. Diaphragm
- C. Epiglottis
- D. Bronchi

13. Choose an anoxygenic photosynthetic organism?

- A. Plants
- B. Photosynthetic protists
- C. Cyanobacteria
- D. Green and Purple photosynthetic organism

14. Which of the following help to overcome Genetic dwarfism?

- A. Auxin
- B. Ethylene
- C. Abscisic acid
- D. Gibberellin

15. Select the INCORRECT statements regarding photoreceptors from the following.

I. Rods help in colored vision and cones distinguish between light intensities.

II. Rods and cones are photoreceptors cells found in vertebrates.

III. Rods and cones are useful in dim light.

IV. Rods help in vision in dim light and cones in bright light.

- A. Both I & III
- B. Both II & IV
- C. II, III & IV
- D. Only III

16. Circulatory patterns are describe as-

- A. Open
- B. Close
- C. Both
- D. None

17. Which one is/are correct about the coagulation of blood?

- 1) Fibrin is made formed by the conversion of insoluble fibrinogen in plasma.
- 2) It is a cascade process.
- 3) Calcium ion plays a very important role in clotting.

- A. 1 & 2 Only
- B. 1 & 3 Only
- C. 1, 2 & 3 Only
- D. 2 & 3 Only

18. Mosses and ferns are found in moist and shady places because both :

- A. Require the presence of water for fertilization
- B. Do not need sunlight for photosynthesis
- C. Depend for their nutrition on micro-organism which can survive only at low temperature.
- D. Can not compete with sun-loving plants.

19. Unicellular and non-jacketed sex organs are characteristics of :

- A. Thallophyte
- B. Bryophyta
- C. Pteridophyta
- D. Spermatophyte

20. Which of the following is a viral disease?

- A. Mumps
- B. DSP
- C. Valley fever
- D. Leprosy

21. Consider the following statements regarding Transcription:

- 1) The main enzyme involved in transcription is DNA polymerase.
- 2) It is the termination stage in transcription which signal that RNA transcript is complete.

Which among the following statements given above is/are correct?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 and 2

22. Consider the following statements regarding how virus disease works:

- 1) The virus particle releases its genetic instructions into the host cell.
- 2) All viruses possess some type of protein on the outside of the envelope or coat.

Which among the given above statement (s) is/are correct?

- A. 1 only
- B. 2 only
- C. Both are correct
- D. Both are incorrect

23. Consider the following statements regarding Human Respiration:

- 1) Breathing in humans involves the movement of the rib cage and the diaphragm.
- 2) When an individual breathes out, the diaphragm contracts and move downwards.

Which among the given statement (s) is/are correct?

- A. 1 only
- B. 2 only
- C. Both are correct
- D. Both are incorrect

24. Read the following options carefully and choose the correct answer regarding the coenzyme function in fat soluble vitamin.

- A. No fat-soluble vitamin has coenzyme function
- B. All fat-soluble vitamin has a coenzyme function
- C. Not all fat-soluble vitamin has coenzyme function only vitamin k shows such activity
- D. All fat-soluble vitamin has a coenzyme function except vitamin k

25. The complete process of nutrition is-

- A. Absorption - Assimilation - Defecation - Digestion - Ingestion
- B. Ingestion - Digestion - Absorption - Assimilation - Defecation
- C. Ingestion - Absorption - Digestion - Defecation - Assimilation
- D. Defecation - Assimilation - Absorption - Digestion - Ingestion

26. Which biological component is used to make cell wall of plants?

- A. Proteins
- B. Lipid bilayer
- C. Cellulose
- D. Carbohydrates

27. Deficiency of which mineral causes dark green colouration of the leaves?

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

28. Which hormones cause Conn's disease due to its hypersecretion?

- A. Antidiuretic Hormone
- B. Adrenocorticotrophic Hormone
- C. Aldosterone
- D. Insulin

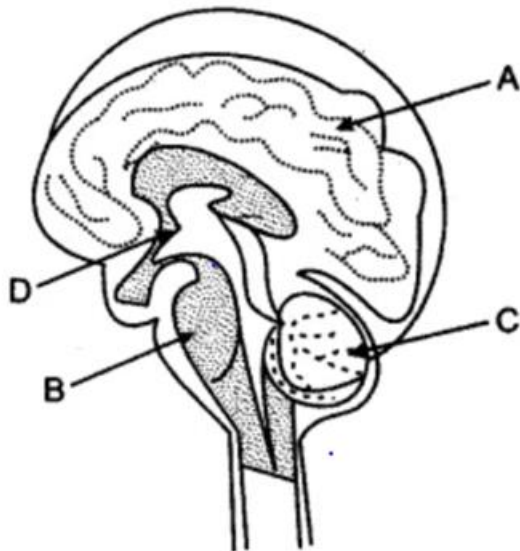
29. The disease symptom include inflamed skin, diarrhea, dementia, and sores in the mouth. This is the clear sign of niacin deficiency, Identify the disease from the following options.

- A. Pellagra
- B. Eczema
- C. Chromhidrosis
- D. Argyria

30. The process of nutrition in which plants make their own food is called _____.

- A. Autotrophic nutrition
- B. Heterotrophic nutrition
- C. Saprotrophic nutrition
- D. All of the above

31. In the following diagram, A, B, C, and D are



- A. A- cerebrum, B- Medulla oblongata, C- Cerebellum, D- Cerebrospinal fluid
- B. A-Cerebellum, B- Medulla oblongata, C- cerebrum, D- Cerebrospinal fluid
- C. A- Medulla oblongata, B-cerebrum, C- Cerebellum, D- Cerebrospinal fluid
- D. A- cerebrum, B- Medulla oblongata, C-Cerebrospinal fluid, D- Cerebellum

32. An uncontrolled growth of tissues in any part of the body causes cancer. In which category does this disease belong?

- A. Congenital disease
- B. Non-infectious disease
- C. Infectious disease
- D. None of these

33. Which digestive glands are present outside the digestive tract?

- A. Parotid
- B. Gastric
- C. Liver
- D. Both A & C

34. Photoperiods are responded by the plants due to the presence of?

- A. Phytochromes
- B. Stomata
- C. Cytochromes
- D. Phytohormones

35. Factor which influence the flowering in plant are _____?

- A. Photoperiod
- B. Water content in the soil
- C. Acidity of soil
- D. Amount of green pigment

36. _____ also known as Stress hormone?

- A. Abscisic acid
- B. Gibberellin
- C. Cytokinin
- D. Auxin

37. Prevention of leaf fall can be controlled by?

- A. Abscisic acid
- B. Auxin
- C. Cytokinin
- D. Ethylene

38. Which of the following is a short day plant?

- A. Cucumis
- B. Xanthium
- C. Avena
- D. Pisum

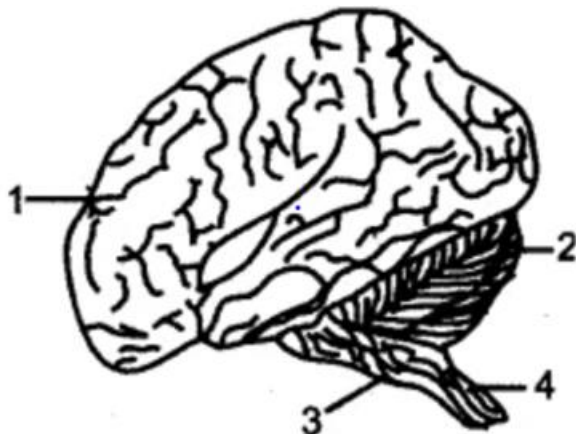
39. Which among the following is NOT an endocrine gland?

- A. Pancreas
- B. Parathyroid
- C. Pituitary
- D. Hypothalamus

40. Anaerobic respiration typically takes place in the _____?

- A. Cytoplasm
- B. Ribosome
- C. Nucleus
- D. Nucleolus

41. Select the CORRECT function/function(s) of the organ labeled as 3 in the following diagram



- I. It acts as nutrient delivery and waste removal system for the brain.
- II. It controls some vital functions like heartbeat, breathing, and digestion
- III. It connects the spinal cord, pons, and the cerebral cortex.

IV. It maintains the posture and controls reflexes

- A. Both I & IV
- B. Both II & III
- C. II, III & IV
- D. I, III & IV

42. The fluid present in the posterior chamber of the eye is known as

- A. Vitreous humor
- B. Aqueous humor
- C. Macula
- D. Sclera

43. The condition commonly seen in older people where the lens loses the flexibility is known as

- A. Presbyopia
- B. Astigmatism
- C. Cataract
- D. Conjunctivitis

44. _____ is a small, solid mass of nervous tissue which contains numerous neuron cell bodies.

- A. Synapse
- B. Cyton
- C. Hypothalamus
- D. Ganglion

45. Following question consists of statements of an Assertion and a Reason. Choose the correct option:

Assertion: In space between the dura mater and pia mater, the corpus callosum is found.

Reason: It maintains constant intracranial pressure.

- A. Assertion and reason both are correct statements and reason is the correct explanation for the assertion.
- B. Assertion and reason both are correct statements but the reason is not the correct explanation for the assertion.

- C. Assertion is a correct statement but reason is wrong.
- D. Both assertion and reason are wrong.

46. Which of the following are NOT present in nerve cells?

- A. neurilemma
- B. sarcolemma
- C. axon
- D. dendrites

47. What are the flagellated, motile asexual reproductive structure called as?

- A. Zoospores
- B. Megaspores
- C. Aplanospores
- D. Microspores

48. Which is the most important metabolic activities of all the organisms?

- A. Digestion
- B. Excretion
- C. Respiration
- D. Ingestion

49. The correct sequence of neuron structure is:

- A. Axon endings – Nucleus – Dendrites – Axon – Perikaryon – Dendron
- B. Dendron – Dendrites – Nucleus – Perikaryon – Axon – Axon endings
- C. Dendrites – Dendron – Perikaryon – Nucleus – Axon – Axon endings
- D. Axon endings – Axon – Nucleus – Dendrites – Perikaryon – Dendron

50. Select the CORRECT statements regarding pulmonary respiration from the following.

- I. Exchange of gases between alveoli of lungs and the blood
- II. Exchange of gases between blood and tissue cells
- III. Breathing between the atmosphere and the alveoli of the lungs

IV. It is an external process

- A. Both I & IV
- B. Both II & III
- C. II, III & IV
- D. I, III & IV

51. "Patient zero" term refers to-

- A. Who has no disease.
- B. first to become infected
- C. Who controls the disease.
- D. None of the above

52. Match the following Organisms with their Genus-

Column A Column B

- 1). Housefly a. Triticum
- 2). Mango b. Homo
- 3). Man c. Musca
- 4). Wheat d. Mangifera

1 2 3 4

- A. d c b a
- B. c a b d
- C. c d b a
- D. b a d c

53. The life span of mRNA in E.coli is-

- A. 4 minute
- B. 7 minute
- C. 2 minute
- D. More than 10 minute

54. An example of Hard wax is-

- A. Archaeobacterial wax
- B. Liquid wax
- C. Carnauba wax
- D. Petroleum wax

55. Match the following Female reproductive part with their functions-

Column A Column B

- 1). Ovary a. Sustain a developing fetus.
- 2). Uterus b. Facilitates the passage of sperm into the uterine cavity
- 3). Fallopian tube c. Produces egg cells.
- 4). Cervix d. Sites of fertilization of an ovum.

1 2 3 4

- A. d c b a
- B. c a d b
- C. c d b a
- D. b a d c

56. Which of the below-given enzymes has been found in gastric juice?

- A. Trypsin, Rennin, and Lipase
- B. Lipase, Pepsin, and Rennin
- C. Lipase, Pepsin, and Trypsin
- D. Lipase, Trypsin, and Rennin

57. Which of the following shows a one-way passage in the ecosystem?

- A. Carbon
- B. Pottasium
- C. Free energy
- D. Nitrogen

58. _____ Excretory parts are called flame cells.

- A. Flatworm
- B. Crustaceans

- C. Coelenterata
- D. Annelida

59. These are the characteristics of-

- 1). Formed later in the evolution.
- 2). Complex body structure.
- 3). Evolved very much in a short span of time.

- A. Primitive organism
- B. Advanced organism
- C. Primitive cell
- D. Advanced cell

60. _____ are called suicidal bags?

- A. Golgi body
- B. Ribosome
- C. Lysosome
- D. Nucleosome

61. In which of the following animals the transport of gases does not require a circulatory system?

- A. Human
- B. Fish
- C. Reptiles
- D. Cockroach

62. The process of photorespiration depends on?

- A. Heat
- B. Light
- C. Enzymes
- D. Chemical

63. The air we exhale contains how much percentage of CO₂?

- A. 21%
- B. 74%
- C. 29%
- D. 4%

64. Which of the following is the universal donor ?

- A. AB blood group
- B. O blood group
- C. A blood group
- D. none

65. Which of the following plant is a monocot?

- A. Gram
- B. Pea
- C. Rice
- D. Mango

66. Which plant group is known as "vascular cryptogams"?

- A. Thallophyte
- B. Bryophyta
- C. Pteridophyte
- D. Gymnosperms

67. Match the following column :

a	Azolla	1	Plant with the smallest seed
b	Orchids	2	Plant with the biggest fruit
c	Lodoicea	3	Smallest cell
d	PPLO	4	Smallest pteridophyte

- A. a-4, b-1, c-3, d-2
- B. a-4, b-2, c-1, d-3
- C. a-4, b-1, c-2, d-3
- D. a-3, b-2, c-4, d-1

68. The following question consists of statements of an Assertion and a Reason. Choose the correct option:

Assertion: Most sex-linked genes are present on the X chromosome in humans.

Reason: X-chromosome contains a large number of genes with major effects on phenotype.

- A. Assertion and reason both are correct statements and reason is the correct explanation for the assertion.
- B. Assertion and reason both are correct statements but the reason is not the correct explanation for the assertion.
- C. The assertion is a correct statement but reason is wrong.
- D. The assertion is wrong but the reason is a correct statement.

69. Choose among the following the function of the large subunit of ribosomes?

- A. To make new bonds
- B. To make mRNA
- C. To protect the ribosome
- D. To make organelles

70.

Which cell organelle occupies most of the space in a cell?

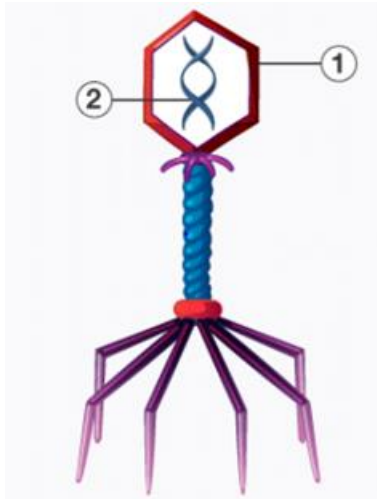
- A. Vacuole
- B. Lysosomes
- C. Endoplasmic reticulum
- D. Nucleus

71. Select the CORRECT statement/statements regarding sclerenchyma, one of the permanent tissues.

- I. They are elongated, dead cells.
- II. It has minute intercellular spaces.
- III. It is found in shells of nuts.
- IV. Their cell walls are made up of pectin and cellulose.

- A. Both I & III
- B. Both II & IV
- C. II, III & IV
- D. Only III

72. Identify the following figure. What does 1 stand for?



- A. HIV, DNA
- B. HIV, Capsid
- C. Bacteriophage, DNA
- D. Bacteriophage, Capsid

73. Select the CORRECT sequence regarding female gamete formation in the plant.

- A. Embryo sacs → Megaspores → Megaspore mother cell → Egg
- B. Megaspore mother cell → Megaspores → Embryo sacs → Egg
- C. Egg → Megaspore mother cell → Megaspores → Embryo sacs
- D. Megaspores → Embryo sacs → Megaspore mother cell → Egg

74. The Following question consists of statements of an Assertion and a Reason. Choose the correct option:

Assertion: There is no mixing of oxygenated and deoxygenated blood in a four-chambered heart.

Reason: Humans have four-chambered hearts with valves to avoid the backflow of blood.

- A. Assertion and reason both are correct statements and reason is the correct explanation for the assertion.
- B. Assertion and reason both are correct statements but the reason is not the correct explanation for the assertion.
- C. Assertion is a correct statement but reason is wrong.
- D. Assertion is wrong but the reason is a correct statement.

75. The ciliated columnar epithelium is present in _____.

- A. bronchioles and Fallopiian tube
- B. buccal cavity and esophagus
- C. Fallopiian tube and nephrons
- D. Blood vessels and stomach lining

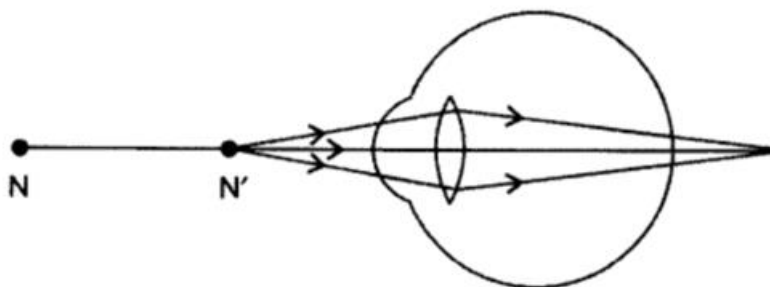
76. Name an enzyme that is present in the stomach of young ruminants and used in the dairy industry to produce cheese.

- A. Pepsin
- B. Trypsin
- C. Pectin
- D. Renin

77. What is the maximum volume of air contained in the lung by a full forced inhalation called?

- A. Inspiratory capacity
- B. Total lung capacity
- C. Tidal volume
- D. Vital capacity

78. Which defect of vision is shown in the figure below?



- A. Hypermetropia
- B. Myopia
- C. Conjunctivitis
- D. Cataract

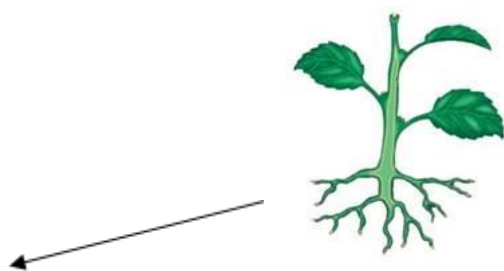
79. Among the following which disease is prevented by the DTaP vaccine?

- A. Diarrhea
- B. Diphtheria.
- C. Dengue.
- D. Dementia

80. Which one is correct about the bacteria-

- 1) They are a type of biological cell.
 - 2) They live in a symbiotic and parasitic relationship with plants and animals.
 - 3) They are a small collection of genetic code.
- A. 1 & 2 Only
 - B. 1 & 3 Only
 - C. 1, 2 & 3 Only
 - D. 2 & 3 Only

81. Identify the below-arrowed part-

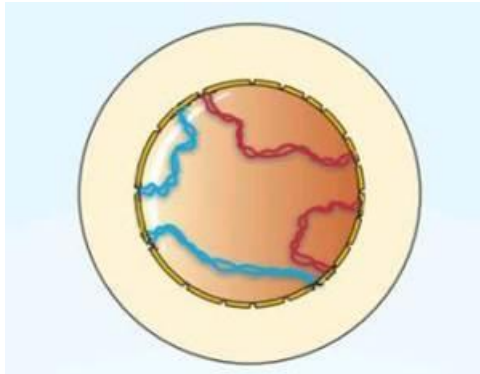


- A. Apical meristem
- B. Axillary meristem
- C. Calyptragen
- D. Root cap

82. Which one of the following has a closed blood circulatory system?

- A. Arthropoda
- B. Chordata
- C. Annelida
- D. Mollusca

83. Identify the stage in mitosis-



- A. Early prophase
- B. Late prophase
- C. Metaphase
- D. Telophase

84. The two forms of Endoplasmic reticulum are-

- 1. Rough
- 2. Smooth
- 3. Vascular
- 4. Enzymatic

- A. 1 & 2 Only
- B. 1 & 3 Only
- C. 1, 2 & 3 Only
- D. 2 & 3 Only

85. Which of the following bacteria are used to make probiotics?

- A. *Lactobacillus*
- B. *Bifidobacterium*
- C. *Saccharomyces*

D. Both A & B

86. The compound microscope has _____ converging lenses.

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

87. Match the two columns and select the correct sequence for the steps involved in DNA fingerprinting.

Column I	Column II
(I) STEP I	(i) Digesting the DNA with the help of restriction endonuclease
(II) STEP II	(ii) Blotting the separated fragments
(III) STEP III	(iii) Isolating the DNA
(IV) STEP IV	(iv) Separating the digested fragments by electrophoresis.

- A. (I) - (i), (II) - (ii), (III) - (iii), (IV) - (iv)
- B. (I) - (ii), (II) - (i), (III) - (iii), (IV) - (iv)
- C. (I) - (iii), (II) - (i), (III) - (iv), (IV) - (ii)
- D. (I) - (iii), (II) - (i), (III) - (ii), (IV) - (iv)

88. _____ muscle moves the food from the throat to the stomach.

- A. skeletal
- B. cardiac
- C. voluntary
- D. smooth

89. Which pigments are found in red algae?

- A. Chlorophyll c
- B. Chlorophyll b
- C. Chlorophyll d

D. Both A & C

90. Which of the following substances is more in Golden Rice?

- A. Biotin
- B. Lysine
- C. beta-carotene and ferritin
- D. Vit C

91. Select the CORRECT statements from the following.

I. Acute rheumatic fever is an inflammatory disease that affects the gut, and intestines.

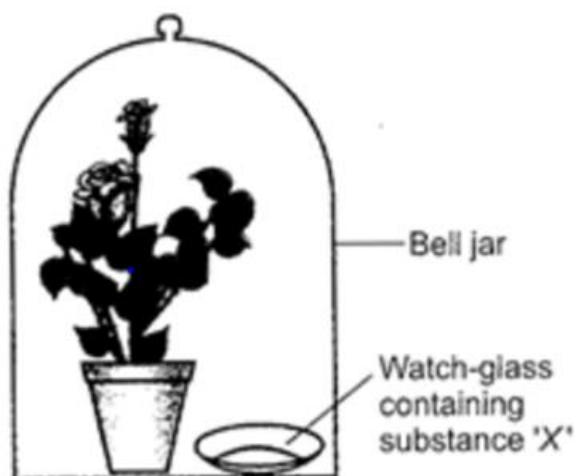
II. Rheumatic fever damages the heart valve.

III. The pericardium and endocardium get affected due to the inflammation caused by rheumatic disease.

IV. Symptoms of rheumatic fever are strep throat which develops into a fever.

- A. Both I & II
- B. Both II & III
- C. II, III & IV
- D. I, III & IV

92. Identify the substance X in the following experiment showing CO₂ is essential for photosynthesis?



- A. Potassium sulfate
- B. Sodium carbonate
- C. Sodium bicarbonate
- D. Potassium hydroxide

93. Which of the following is wrong for fungi?

- A. They are eukaryotic.
- B. All fungi possess a purely cellulosic cell wall.
- C. They are heterotrophic.
- D. They are both unicellular and multicellular.

94. Match the following--

Column A - Column B

- 1) Ultrafiltration - a. Henle's loop
- 2) Concentration of urine - b. Ureter
- 3) Transport of urine - c. Urinary bladder
- 4) Storage of urine - d. Malpighian corpuscle

- A. d a b c
- B. c a b d
- C. c d b a
- D. b a d c

95. During favorable conditions, bacteria mainly reproduce by?

- A. Fragmentation
- B. Sporulation
- C. Budding
- D. Fission

96. Who discovered the Cholera bacillus?

- A. Ronald Ross
- B. Robert Koch
- C. Robert Brown

D. Louis Pasteur

97. Diarrhea diseases caused by?

- A. Fungi
- B. Bacteria
- C. Protozoa
- D. virus

98. The study of the visceral organ is called?

- A. Anthropology
- B. Arthrology
- C. Splanchnology
- D. Angiology

99. Vitamin A is called?

- A. Ascorbic Acid
- B. Retinol
- C. Calciferol
- D. Thiamine

100. Which of the following hormone contains iodine?

- A. Insulin
- B. thyroxine
- C. Adrenaline
- D. Testosterone

101. Hindlimb of man consist of how many bones?

- A. 14
- B. 25
- C. 30
- D. 50

102. What percentage of oxygen is carried by hemoglobin?

- A. 23
- B. 73
- C. 57
- D. 98

103. Which of the following helps in increasing the width and girth of the plants?

- A. Apical meristem
- B. Lateral meristem
- C. Intercalary meristem
- D. Permanent tissue

104. The main chemical component of the fungal cell wall is?

- A. Peptidoglycan
- B. Hemicellulose
- C. Chitin
- D. Pectin

105. A baby boy aged two years is admitted to playschool and passes through a dental checkup. The dentist observed that the boy had 20 teeth. Which teeth were absent?

- A. Canine
- B. Incisors
- C. Pre-molars
- D. Molars

106. In which part of the body is blood produced?

- A. Lungs
- B. Heart
- C. Brain
- D. Bone Marrow

107. Lateral roots originate due to the-

- A. Cortex
- B. Pericycle
- C. Endodermal cells

D. Cork cambium

108. Which of the fact is NOT correct about Photosynthesis?

- A. CO_2 , H_2O , chlorophyll, and sunlight are necessary.
- B. The light reaction occurs in the stroma.
- C. The dark reaction occurs in the stroma.
- D. Chlorophyll is a photoreceptor molecule.

109. Generative nucleus divides and forms_____.

- A. 3 male nuclei
- B. 2 male nuclei
- C. 3 female nuclei
- D. 2 female nuclei

110. ATP is consumed during which of the following reaction?

- A. Isocitric acid to Cis aconitic acid
- B. Glucose to Glucose 6 Phosphate
- C. Citric acid to Isocitric acid
- D. Pyruvic acid to Acetyl Coenzyme A

111. Which of the following shows Phenylketonuria disease-

- A. Accumulation of sugar in tissues
- B. Discharge of sugar in the urine
- C. Accumulation of phenylalanine tissue
- D. Less amount of phenylalanine in tissue