

1. Which of the following is concerned with smell
  - A. Optic nerve
  - B. Olfactory nerve
  - C. Vagus nerve
  - D. Hypoglossal nerve
2. Tongue has how many types of taste buds
  - A. 2
  - B. 4
  - C. 3
  - D. 5
3. Pain Receptors are
  - A. Free nerve endings
  - B. Pacinian corpuscle
  - C. Bulb of Krause
  - D. Ruffini corpuscle
4. Structural unit of collagen fibres is synthesized by:
  - A. Macrophages
  - B. Fibroblasts
  - C. Plasma cells
  - D. Monocytes
5. Which is the innermost layer of eye ball
  - A. Cornea
  - B. Choroid
  - C. Sclera
  - D. Retina
6. Posterior aperture of nasal cavity opens into
  - A. Nasopharynx
  - B. Oropharynx
  - C. Larynx
  - D. Hypopharynx
7. Waldeyer's ring is present at
  - A. Anal canal
  - B. Oesophagus
  - C. Pharynx
  - D. Trachea
8. Bile is secreted into
  - A. Stomach
  - B. Duodenum
  - C. Ileum
  - D. Colon
9. Aorta arises from
  - A. Right atrium
  - B. Right ventricle
  - C. Left atrium
  - D. Left ventricle
10. A cartilage surface not covered by perichondrium
  - A. Elastic cartilage
  - B. Articular cartilage
  - C. Hyaline cartilage
  - D. Is never seen in adult humans
11. The nerve of hearing is
  - A. 5<sup>th</sup> cranial nerve
  - B. 6<sup>th</sup> cranial nerve
  - C. 8<sup>th</sup> cranial nerve
  - D. 10<sup>th</sup> cranial nerve
12. The major purposes of adipose tissue in the body are:
  - A. Strength, flexibility, elasticity
  - B. Support, connection, conduction
  - C. Padding, cushioning, insulating
  - D. Absorption, compression, lubrication
13. The pads that lie between the vertebrae of the spinal column contain:
  - A. Elastic cartilage
  - B. Fibrocartilage
  - C. Hyaline cartilage
  - D. Dense, regular connective tissue
14. Bone cells found in the lacunae within the matrix are called:
  - A. Osteocytes
  - B. Chondrocytes
  - C. Adipocytes
  - D. Stroma
15. Hyaline cartilage is found in:
  - A. At the ends of long bones
  - B. Intervertebral discs
  - C. Epiglottis
  - D. Symphysis pubis
16. In a closed vessel, pressure exerted by a gas is due to:
  - A. Gravitational force
  - B. Molecular collisions
  - C. Surface tension
  - D. Viscosity
17. A transformer operates on:
  - A. Electrolysis
  - B. Electromagnetic induction
  - C. Photoelectric effect
  - D. Radioactivity

18. Which color of visible light has the highest frequency?  
A. Red  
B. Yellow  
C. Green  
D. Violet
19. According to Ohm's law, current is  
A. Directly proportional to voltage  
B. Inversely proportional to voltage  
C. Independent of voltage  
D. Equal to resistance
20. The frequency of AC mains supply in India is:  
A. 25 Hz  
B. 50 Hz  
C. 60 Hz  
D. 100 Hz
21. Ultrasound imaging uses sound waves with frequencies:  
A. Below 20 Hz  
B. 20–20,000 Hz  
C. Above 20,000 Hz  
D. Below 200 Hz
22. Which gas is most commonly used in laparoscopic surgery?  
A. Oxygen  
B. Nitrogen  
C. Carbon dioxide  
D. Helium
23. The strongest acid among the following is:  
A. HCl  
B.  $\text{CH}_3\text{COOH}$   
C.  $\text{H}_2\text{CO}_3$   
D.  $\text{H}_2\text{S}$
24. Which vitamin contains cobalt?  
A. Vitamin A  
B. Vitamin C  
C. Vitamin  $\text{B}_{12}$   
D. Vitamin D
25. The major component of LPG is:  
A. Methane  
B. Propane and Butane  
C. Ethane  
D. Hydrogen
26. Which one is an oxidizing agent?  
A.  $\text{H}_2$   
B. CO  
C.  $\text{KMnO}_4$   
D.  $\text{CH}_4$
27. The pH of blood is approximately:  
A. 5.5  
B. 6.8  
C. 7.4  
D. 8.5
28. The active ingredient in bleaching powder releases:  
A. Hydrogen  
B. Oxygen  
C. Chlorine  
D. Nitrogen
29. Which blood vessel carries deoxygenated blood from the heart to the lungs?  
A. Aorta  
B. Pulmonary vein  
C. Pulmonary artery  
D. Coronary artery
30. Which white blood cell is most abundant in normal blood?  
A. Eosinophil  
B. Basophil  
C. Monocyte  
D. Neutrophil
31. Process of water exudation through hydathodes  
A. Guttation  
B. Transpiration  
C. Excretion  
D. Hydrolysis
32. Rods and cones are modified  
A. Multipolar neurons  
B. Unipolar neurons  
C. Bipolar neurons  
D. Pseudounipolar neurons
33. Which one of the following diseases is NOT related to thyroid gland  
A. Myxedema  
B. Acromegaly  
C. Cretinism  
D. Goitre

34. Flame cells are excretory organs of  
 A. Planaria  
 B. Hydra  
 C. Hydrilla  
 D. Cockroach
35. The site of respiration in bacteria is  
 A. Episome  
 B. Plasmid  
 C. Mesosome  
 D. Cytoplasm
36. Main excretory product in cockroach and other insects is  
 A. Urea  
 B.  $\text{NH}_3$   
 C. Amino acid  
 D. Uric acid
37. Kupffer cells in mammals are present in  
 A. Lungs  
 B. Spleen  
 C. Liver  
 D. Pancreas
38. Seed dormancy is due to  
 A. Ethylene  
 B. Abscisic Acid  
 C. Indole Acetic Acid  
 D. Starch
39. Which one of the following diseases is NOT due to contamination of water  
 A. Hepatitis B  
 B. Jaundice  
 C. Cholera  
 D. Typhoid
40. All the following are included in “ex-situ conservation” EXCEPT  
 A. Botanical gardens  
 B. Sacred grooves  
 C. Wildlife safari park  
 D. Seed banks
41. Which one undergoes longitudinal binary fission  
 A. Amoeba  
 B. Planaria  
 C. Euglena  
 D. Plasmodium
42. Anemophily is pollination through  
 A. Water  
 B. Air  
 C. Insects  
 D. Worms
43. Coconut water from tender coconut represents  
 A. Free nuclear endosperm  
 B. Endocarp  
 C. Fleshy mesocarp  
 D. Free nuclear proembryo
44. Which of the following hormones is NOT secreted by human placenta  
 A. hCG  
 B. Estrogen  
 C. Progesterone  
 D. LH
45. Oral contraceptive pills function by inhibition of  
 A. Fertilization  
 B. Ovulation  
 C. Sperm motility  
 D. Proliferation
46. Phenomenon of one gene controlling several phenotypes is known as  
 A. Epistasis  
 B. Pleiotropism  
 C. Codominance  
 D. Multiple allelism
47. ZZ/ZW type of sex determination is seen in  
 A. Platypus  
 B. Snails  
 C. Cockroach  
 D. Peacock
48. In eukaryotic cell transcription, RNA splicing and RNA capping takes place in  
 A. Nucleus  
 B. Ribosomes  
 C. Endoplasmic reticulum  
 D. Dictyosomes
49. Okazaki fragments are associated with phenomenon of  
 A. Translation  
 B. Transcription  
 C. Replication of DNA  
 D. Reverse transcription

50. Human ancestors who left cave paintings were
- Australopithecines
  - Java man
  - Cro-magnon man
  - Peking man
51. Which of the following compound can form a zwitter ion?
- Aniline
  - Ethylamine
  - Benzoic acid
  - Glycine
52. Iodoform test is not given by
- Pentan-3-one
  - Pentan-2-one
  - Ethanal
  - Ethanol
53. Heating of phenyl methyl ether with HI produces
- Iodobenzene
  - Benzene
  - Phenol
  - Methane
54. Which among the following compounds will give us a secondary alcohol on heating with Grignard reagent followed by acid hydrolysis?
- HCHO
  - $C_2H_5CHO$
  - $CH_3COCH_3$
  - $RCOOC_2H_5$
55. IUPAC name of m-cresol is
- 3-Chlorophenol
  - 3-Methoxyphenol
  - Benzene-1,3-diol
  - 3-Methylphenol
56. Phenol is less acidic than \_\_\_\_\_.
- Ethanol
  - 2-Nitrophenol
  - 2-Methylphenol
  - 2-Methoxyphenol
57. Which of the following alkyl halide will undergo  $SN^1$  reaction most readily?
- $(CH_3)_3C-I$
  - $(CH_3)_3C-F$
  - $(CH_3)_3C-Cl$
  - $(CH_3)_3C-Br$
58. Which of the following pairs of gases contain the same number of molecules?
- 6 g of  $O_2$  and 22 g of  $CO_2$
  - 28 g of  $N_2$  and 22 g of  $CO_2$
  - 32 g of  $CO_2$  and 32 g of  $N_2$
  - 16 g of  $O_2$  and 14 g of  $N_2$
59. What is the shape of the orbital whose azimuthal quantum number is 0
- Spherical
  - Dumbbell
  - double dumbbell
  - circular
60. which oxide of nitrogen is isoelectronic with  $CO_2$
- $NO_2$
  - NO
  - $N_2O_3$
  - $N_2O$
61. Which molecule / ion out of the following does not contain unpaired electrons?
- $O_2$
  - $B_2$
  - $N_2^+$
  - $O_2^{2-}$
62. Which of the following statement is not correct?
- $\Delta G$  is positive for a non-spontaneous reaction
  - $\Delta G$  is 0 for a reversible reaction
  - $\Delta G$  is positive for a spontaneous reaction
  - $\Delta G$  is negative for a spontaneous reaction
63. If  $Q_c$  is greater than  $K_c$ , then reaction proceeds
- In the backward direction
  - At equilibrium
  - In the forward direction
  - None of above
64. The conjugate acid of  $NH_3$  is
- $OH^-$
  - $NH_2^-$
  - $NH_4^+$
  - $HNO_3$

65. Which effect involves displacement of sigma ( $\sigma$ ) electrons
- Resonance effect
  - Mesomeric effect
  - Electromeric effect
  - Inductive effect
66. Lambert Beer Law states that absorbance is directly proportional to
- Molecular weight and charge of solute
  - Charge and temperature of solute
  - Temperature and wavelength
  - Concentration of solute and path length
67. To separate serum from whole blood in a clinical laboratory, centrifugation should be done at
- 100-200 rpm for 5-10 min
  - 10000 rpm for 30-40 min
  - 1500-3000rpm for 10-15 min
  - 500rpm for 1 hour
68. Which of the following lipoprotein is carrier of bad cholesterol
- HDL
  - LDL
  - VLDL
  - Chylomicron
69. The nitrogenous base absent in DNA is
- Cytosine
  - Adenine
  - Uracil
  - Guanine
70. Vitamin D deficiency leads to
- Rickets
  - Night Blindness
  - Scurvy
  - Beri Beri
71. Normal fasting blood glucose in a healthy individual is
- 140-160mg/dL
  - 120-140mg/dL
  - 40-60mg/dL
  - 70-100mg/dL
72. Increase in serum creatinine level is indicator of which of the following organ's dysfunction
- Liver
  - Kidney
  - Pancreas
  - Thyroid
73. Which RNA carries the amino acids to the site of protein synthesis
- tRNA
  - mRNA
  - rRNA
  - hnRNA
74. Storage form of glucose in animals is
- Starch
  - Cellulose
  - Glycogen
  - Chitin
75. Which blood group is called the universal donor?
- A Negative
  - B Positive
  - AB Positive
  - O Negative
76. DNA stands for
- Deoxyribonucleic Acid
  - Dioxyribonucleic Acid
  - Dinucleic Acid
  - Deoxyribose Nucleic Acid
77. Which blood cells are primarily responsible for immunity?
- RBCs
  - Platelets
  - WBCs
  - Plasma cells
78. Hand hygiene is primarily performed to
- Improve skin texture
  - Prevent transmission of infection
  - Remove sweat
  - Reduce body temperature
79. Which of the following is a bacterium?
- Amoeba
  - Escherichia coli
  - Paramecium
  - Yeast

80. Bacteria are:
- A. Eukaryotic organisms
  - B. Multicellular organisms
  - C. Prokaryotic organisms
  - D. Acellular organisms
81. The shape of spherical bacteria is called:
- A. Bacilli
  - B. Cocci
  - C. Spirilla
  - D. Vibrios
82. The microorganism used in bread making is:
- A. Aspergillus
  - B. Penicillium
  - C. Saccharomyces
  - D. Rhizopus
83. Viruses can multiply only:
- A. In soil
  - B. In water
  - C. Inside living cells
  - D. In air
84. Which organ is the primary site of erythropoiesis in adults?
- A. Spleen
  - B. Liver
  - C. Bone Marrow
  - D. Thymus
85. Which leukocyte is primarily involved in allergic reactions?
- A. Neutrophil
  - B. Basophil
  - C. Eosinophil
  - D. Lymphocyte
86. Reticulocytes can be identified by:
- A. Romanowsky stain
  - B. Supravital stain
  - C. PAS stain
  - D. Gram stain
87. The normal platelet count is approximately:
- A. 50,000–100,000/ $\mu$ L
  - B. 100,000–150,000/ $\mu$ L
  - C. 150,000–450,000/ $\mu$ L
  - D. 500,000–800,000/ $\mu$ L
88. Which blood group is considered the universal recipient?
- A. O negative
  - B. A positive
  - C. B positive
  - D. AB positive
89. The major iron storage protein in the body is:
- A. Transferrin
  - B. Ferritin
  - C. Hemosiderin
  - D. Ceruloplasmin
90. Heinz bodies are composed of:
- A. RNA remnants
  - B. Iron granules
  - C. Denatured haemoglobin
  - D. Nuclear fragments
91. The intrinsic pathway of coagulation is assessed by:
- A. PT
  - B. BT
  - C. CT
  - D. aPTT
92. Which vitamin is necessary for synthesis of clotting factors II, VII, IX and X?
- A. Vitamin A
  - B. Vitamin D
  - C. Vitamin K
  - D. Vitamin E
93. Which epithelial tissue lines blood vessels?
- A. Stratified squamous
  - B. Transitional
  - C. Simple squamous
  - D. Cuboidal
94. Goblet cells primarily secrete:
- A. Keratin
  - B. Mucin
  - C. Collagen
  - D. Elastin
95. The functional unit of the liver is the:
- A. Acinus
  - B. Nephron
  - C. Lobule
  - D. Alveolus

96. Type II pneumocytes produce:
- A. Mucus
  - B. Surfactant
  - C. Collagen
  - D. Bile
97. Which cartilage lacks perichondrium?
- A. Elastic
  - B. Hyaline (articular)
  - C. Fibrocartilage
  - D. Both B and C
98. The brush border is best seen in:
- A. Stomach
  - B. Ileum
  - C. Esophagus
  - D. Trachea
99. Cells responsible for bone resorption are:
- A. Osteoblasts
  - B. Osteocytes
  - C. Osteoclasts
  - D. Chondrocytes
100. The thickest layer of skin is the:
- A. Epidermis
  - B. Dermis
  - C. Hypodermis
  - D. Stratum corneum