



Medical College Admission Test : 2002–2003

1. Which is incorrect for the life circle of *Entamoeba histolytica*?
 - A. *E. histolytica* lives in human large intestine as internal parasite.
 - B. At one stage it creates ulcer to liver being circulated by penetrating the wall of intestines.
 - C. The trophozoite phase of microbe is very active and mobile.
 - D. The cysts of *E. histolytica* being out with the egestion of host at r.t.p. alive for three weeks. ✓
2. Which of the following make gelatin by boiling with water?
 - A. Urease
 - B. Neucleoprotein
 - C. Keratin
 - D. Collagen ✓
3. Which of the following is the range of listening?
 - A. 20Hz to 20,000 Hz ✓
 - B. 200 Hz to 2000 Hz
 - C. 20Hz to 10000Hz
 - D. 10Hz to 1000 Hz
4. How many chemical bases are present in all creature's DNA?
 - A. 3
 - B. 5
 - C. 4 ✓
 - D. 2
5. For different muscular tissue's structure, which one is incorrect?
 - A. The sarcolemma of voluntary muscle fibre is covered with an apparent layer.
 - B. The cell membrane or sarcolemma is not apparent for involuntary muscles.
 - C. The sarcolemma for cardiac muscles is very fine.
 - D. The cell nucleus of voluntary muscle is situated in narrow parts of the cell.
6. Which reagent makes RCH_2-NH_2 from RCN ?
 - A. CH_2COCl
 - B. $LiAlH_4$ ✓
 - C. $KMnO_4$
 - D. KCN
7. What is the bond angle of sp^2 hybridization?
 - A. 180°
 - B. 109°
 - C. 120° ✓
 - D. 107°
8. $PV = K$; this equation is the expression of which formula?
 - A. Charles law
 - B. Boyle's law ✓
 - C. Pressure law
 - D. Ideal gas equation
9. A particle is falling through liquid with drift velocity. The weight of the body is 0.03 N, buoyancy is 0.01 N. What is the viscous force on the particle?
 - A. 0.01 N
 - B. 0.02 N ✓
 - C. 0.03 N
 - D. 0.04 N
10. The tentacle and Nematocyst take part in which work with relating to each other?
 - A. Locomotion ✓
 - B. Feeding
 - C. Self-preservation
 - D. Reproduction
11. Which of the following is not the part of Renal Tubule?
 - A. Proximal convoluted tubule ✓
 - B. Distal convoluted tubule
 - C. Henle's loop
 - D. Afferent arteriole
12. $(H_3C)_2C=CH_2 + H_2SO_4 \rightarrow$
 - A. $2CH_3CHO$
 - B. $(H_2C)_2-CH_2-OH$
 - C. $(H_3C)_2-COH-CH_3$ ✓
 - D. $(H_3C)_2-COH$
13. Which of the following is not structural isomerism?
 - A. Central isomerism
 - B. Position isomerism
 - C. Activity group isomerism
 - D. Photo isomerism ✓
14. Which of the following is correct for Poisson's ratio σ ?
 - A. $\sigma = \frac{\text{Side Strain}}{\text{Longitudinal Strain}}$ ✓
 - B. $\sigma = \frac{\text{Longitudinal Strain}}{\text{Side Strain}}$
 - C. $\sigma = \text{Side strain} \times \text{Longitudinal strain}$
 - D. $\sigma = \text{Side strain}$
15. Second pendulum is called-
 - A. Pendulum having the time period of 1 sec.
 - B. Pendulum having the time period of 2 sec.
 - C. Pendulum having the time period of 3 sec.
 - D. Pendulum having the time period of 4 sec. ✓
16. Tiger is the consumer of terrestrial ecosystem of
 - A. Final consumer ✓
 - B. Secondary consumer
 - C. Primary consumer
 - D. Tertiary consumer
17. Villi are outed from trophoblast at-
 - A. 3rd week
 - B. end of the fourth week
 - C. end of the second week ✓
 - D. Beginning of the second week
18. Which of the following is not the classification of organic reaction?
 - A. Addition
 - B. Substitution
 - C. Isomerisation
 - D. Ecosystem ✓
19. Which of the following is not the ore of Chromium?
 - A. $FeCr_2O_4$
 - B. Cr_3O_4 ✓
 - C. $PbCrO_4$
 - D. Cr_2O_3
20. The eqⁿ of work due to transfer a particle to infinite distance is...
 - A. $W = -\frac{GM}{r}$ ✓
 - B. $W = \frac{GMm}{r}$ ✓
 - C. $W = \frac{GMm}{r}$
 - D. $W = \frac{GM}{r}$





21. Work done by the force, when $0^\circ \leq \theta < 90^\circ$
- A. Negative B. Positive ✓
C. No work D. None of the above
22. What is the act of acetyl coenzyme esterase?
- A. To show the secondary sexual characteristics
B. Synthesis
C. To carry nerve excitement ✓
D. In metabolism
23. What is responsible for lung cancer?
- A. SiO_2 ✓ B. CO_2
C. MnO_2 D. H_2S
24. Copper-pyrites ore contains?
- A. 3-4% Cu B. 1-2% Cu ✓
C. 4-5% Cu D. 2-3% Cu
25. Which of the following use of trichloro-methane?
- A. Insecticide B. Sense ruinous ✓
C. Refrigerator D. Fire extinguisher
26. Moment of inertia of a substance is-
- A. The summation of moment of inertia of all particles of a substance ✓
B. The multiplication moment of inertia of all particles of a substance
C. The moment of inertia of the center particle
D. The summation of moment of inertia of upper surface particle of a substance
27. What do you mean by thrust?
- A. Value of force is less and time period is more
B. Value of force and time period are same
C. Value of force is high and time period is low ✓
D. None of the above
28. Correct passive of "Who did this?"
- A. By whom was this done? ✓
B. By who this was done?
C. This was done by whom?
D. By whom this was done?
29. Which of the following is incorrect for the reproduction of angiosperms?
- A. The cytoplasm of male pollen is condensed and the nucleus is at the center at first stage.
B. The diploid female pollen mother cell is divided into four haploypoid female-pollen by meiosis.
C. Two nucleous of an ovum's both sides are called synergid nucleous
D. Two male gametes are created by meiosis division of reproductive nucleous inside the pollen tube ✓
30. The conversion of absorbed foods to protoplasm is called-
- A. Digestion B. Absorption
C. Assimilation ✓ D. Imbibation
31. Sporozote is to see?
- A. Oval shaped B. Shuttle shaped ✓
C. Spherical D. Twisted
32. Which of the following is a reasonable compound of asthma at a high rate at present?
- A. SO_2 B. CO_2 ✓
C. NO_2 D. $CaSO_3$
33. Which of the following is used to create ice and preserve septic substances?
- A. Liquid ammonia ✓ B. Liquid Carbon
C. Liquid Sulphur D. Liquid nitrate
34. The width of wave-length of visible spectrum is?
- A. $4000\text{Å} - 10000\text{Å}$ B. $3000\text{Å} - 8000\text{Å}$
C. $6000\text{Å} - 10000\text{Å}$ D. $4000\text{Å} - 8000\text{Å}$ ✓
35. What is mass energy relation?
- A. $E = mc^2$ ✓ B. $E = m/c$
C. $E = c/m$ D. $E = mvc^2$
36. Use appropriate preposition in the following gap. Mati is absent the class.
- A. In B. to
C. from ✓ D. by
37. Which one is incorrect for the internal structure of stems?
- A. Endodermis present and circular side wall of cell is bulky ✓
B. Vascular bundle attached
C. Meta-xylem circumference directed and protoxylem center directed
D. Cutical is outside the epidermis
38. Which of the following is the characteristics of scalarenobrya?
- A. As the cell-wall is thin, so it helps to protect the internal organs ✓
B. Cell wall is made up of salulose and pectin. So, the wall is not so flexible.
C. Cell wall's cells are thin, elsewhere thick
D. To prepare food, store and part strengthen the organ are the activity of this.
39. Hepatic schizogony is held at?
- a. R.B.C B. W.B.C
C. In anopheles body D. In liver ✓
40. Comparatively the number of lymphocytes in child blood and that of in an adult is-
- A. less B. more ✓
C. equal D. Half
41. Zermernium is a --
- A. Metal B. Non-metal
C. Base-metal D. None of the above ✓





42. Electronic configuration of silicon is-
- A. $Si(14) = 1s^2 2s^2 2p^6 3s^2 3p^2$ ✓
B. $Si(14) = 1s^2 2s^6 2p^6 3s^2$
C. $Si(14) = 1s^2 2s^2 2p^2 3s^2 2p^2 2s^4$
D. $Si(14) = 1s^2 2s^2 2p^6 3s^2$
43. The solar cell is not used in which of the following?
- A. Reelay B. In satellite
C. In high speed vehicle D. In rectifier ✓
44. The permittivity of gamma ray with compared to X-ray is-
- A. more ✓ B. less
C. equal D. None of the above
45. Put accurate preposition- He is afraid the dog.
- A. by B. for
C. of ✓ D. to
46. Habit-annual, herb; Calyx-absent, but gloom present; Caricofsis. According to the above characteristics, the plant will be identified as-
- A. Psidium guajava
B. Zea mays ✓
C. Nymphaea nouchali
D. Solanum melongeva
47. The floral formula of mustard seed is-
- A. $+0^{+0} K_{2+2} C_{2 \times 2} A_{4+2} \underline{G} (2) \checkmark$
B. $+0^{+0} EK_5 K(5) C_5 A_{(4)} \underline{G} (5)$
C. $+0^{+0} K(5) C_5 A(5) \underline{G} (2)$
D. $+0^{+0} K_{2+2} C_{2+2} A_{1+2} \underline{G} (2)$
48. Number of nucleous in a marked muscles is-
- A. One B. Two
C. Five D. More than hundred ✓
49. Nervous system is formed by-
- a. Ectoderm ✓ B. Mesoderm
C. Endoderm D. Ecto & Mesoderm
50. Which of the following is appropriate for sodium hypochloride?
- A. To remove basisity of water
b. To wash cloths
C. To discolour any substance ✓
D. To purify materials
51. Which is the optimum temperature to prepare krypton triflouride?
- A. $169^\circ c$ B. $296^\circ c$
C. $196^\circ c$ ✓ D. $269^\circ c$
52. What is the mass of an electron?
- A. $11.9 \times 10^{-31} \text{ kg}$ B. $9.11 \times 10^{-31} \text{ kg}$
C. $11.9 \times 10^{-31} \text{ kg}$ D. $6.9 \times 10^{-51} \text{ kg}$ ✓
53. Which one is correct for polarized light?
- A. Vibration plane of \vec{E} is definite and \vec{B} is absent
B. Vibration plane of \vec{E} is definite and \vec{B} is present ✓
C. Vibration plane of \vec{E} is indefinite
D. Both \vec{E} and \vec{B} are absent.
54. Fill the gap with appropriate preposition. I shall do itpleasare.
- A. in B. with ✓
C. for D. by
55. Which characteristic of "Fungi" of "Eukaryota" Kingdom of supper kingdom is absent?
- A. The cell wall is made up of kytine
B. Meiosis is held in Zygoate.
C. Developed tissue pattern ✓
D. Increase generation by ha ployed spore
56. Which is the important factor for plants species distribution?
- A. Structure of soil B. Heat of soil
C. Water ✓ D. Soils organic compound
57. Who invented the vaccine of hydrophobia?
- A. Lul-Pastur ✓ B. Swan
C. Morgan D. Wales
58. In which year Carollus Lineous established binomial nomenclature and used it properly?
- A. In 1676 B. In 1758 ✓
C. In 1895 D. In 1902
59. Activity series for halogens are-
- A. $Cl > F > Br > I$ B. $F > Cl > I > Br$ ✓
C. $F > Cl > Br > I$ D. $F > Cl > Br > I$
60. Enzyme is-
- A. Inorganic catalyst
B. Organic ✓
C. Element produced in plants and animals body
D. None of the above.
61. Which lights wave-length is maximum?
- A. Violet B. Green
C. Yellow D. Red. ✓
62. What is the angle between the mirror and the principle axis of a spherical mirror?
- A. 0° B. 90° ✓
C. 180° D. 45°
63. Change into indirect speech- I said to him "I don't believe you."
- A. I said that I didn't believe him.
B. I didn't believe him. I said.
C. I said that I don't believe him ✓
D. I said that I didn't believe him.





54. Acetyl Co-A from pyruvic acid, produces-
- A. O_2 and H_2O B. ATP and NADP
C. CO_2 and NADH+ H^+ D. ATP and NADH+ H^+
55. Embryo Sac is formed by monosporic process-
- A. In 50% plant B. In 25% plant
C. In 75% plant D. In 20% plant
56. Which of the following is not the example of sex-linked characteristics?
- A. Colour-blind B. Hypermetropia
C. Juvenile Glaucoma D. Hemophilia
57. Which one is not applicable for Oozensis?
- A. Nucleus and cytoplasm come to adult at a time.
B. Create primary membrane
C. The final period of adulthood is held inside the ovary
D. Form animal and vegetal pole
58. In normal condition what is the pH of human body?
- A. 7.00 B. 7.40
C. 7.80 D. 7.04
59. In Haber process NH_3 production is a-
- A. Exothermic reaction
B. Endothermic reaction
C. Equilibrium reaction
D. Equi-constant reaction
60. Who is the establisher of quantum theory of light?
- A. Newton B. Max-well
C. Einstein D. Plank
61. What is the velocity of light at vacuum?
- A. $(3.9986 \pm 0.003) \times 10^8 m/sec$
B. $(2.9986 \pm 0.003) \times 10^8 m/sec$
C. $(3.9986 \pm 0.003) \times 10^6 m/sec$
D. $(2.9986 \pm 0.003) \times 10^{10} m/sec$
62. He said, "Be quiet and listen to my words." What is the correct indirect form of this sentence?
- A. He asked them to listen his words and be quite
B. He urged them to be quiet and listen to his words.
C. He said them to listen him and be quiet
D. He ordered them to listen his words quietly
63. Metakinesis is held at-
- A. Leptotene period B. Metaphase period
C. Anaphase period D. Prophase period
74. What is the length of mononeucleotide?
- A. $34A^\circ$ B. $10A^\circ$
C. $3.4A^\circ$ D. $0.34A^\circ$
75. Which of the following is not the function of cerebellum?
- A. Control the voluntary motion
B. Controls the voluntary muscles tension
C. Indentify the direction of movement
D. Control the rate of normal respiration
76. Which of the following is not cranium bone?
- A. Frontal bone B. Parietal bone
C. Hyoid bone D. Ethmoid bone
77. Which of the following is applicable to make reversible reaction to irreversible reaction?
- A. Reactant should be solid or liquid and one product should be gas
B. If one of the product be precipitated out
C. If one of the product is transferred from the reaction place
D. All of the above
78. Which are called giant molecules?
- A. Having higher molecular force
B. Having higher atomic mass
C. Having higher molecular mass
D. Having higher atomic weight
79. Soft iron is suitable to prepare-
- A. Electromagnet B. Soft magnet
C. Permanent magnet D. Peg magnet
80. 1 Kw-hr =joule?
- A. 36J B. 3600 J
C. $36 \times 10^5 J$ D. 600 J
81. Who is author of "Treasure Island"?
- A. R.L.Stevenson B. Alexander Dumas
C. Shakespeare D. Charles Dickens
82. Which is the correct translation of the following sentence? "আমি তোমার নিকট বিশেষ কৃতজ্ঞ।"
- A. I am much obliged to you.
B. I am very grateful to you
C. I am very much grateful to you.
D. I am most obliged to you.
83. Where is thylacoid?
- A. In Chloroplast B. In lucoplast
C. In mitrocondria D. In neucleous
84. Which of the following is incorrect?
- A. Rafaid creates face itch
B. The crystalline calcium carbonate like grape string is called cystolith
C. Real plant cells photosynthetic contains protein
D. Higher class plant cells chloroplast structure is like a lens normally





85. Which is correct?
A. The heaped-eyes of cockroach (1200-1800) are made up of ommatidium
B. The seminal vesicle of cockroach store antherozoid temporarily and nutritify them
C. The cockroach eyes have no lens
D. From every ovariole of cockroach one by one, 10 numbers of matured eggs come down to the genital pouch at a time. ✓
86. Which is incorrect?
A. According to the prevalent definition of host, human is definite host of parasite ✓
B. In an average, 12-18 numbers of macrozoetes, when out from the inside of each erythrocyte then they broken and destroyed.
C. The time period of erythrocytic schizogony is 48-72 hrs.
D. The malaria parasite spread out generation by both sexual and asexual reproduction
87. Which of the following is correct?
A. Sometimes the compound have same emperical and chemical formula
B. When the L.C.M of the numbers of atoms is 1 the emperical and chemical formula are same.
C. Sometimes the chemical fomula of compound is multiple of emperical formula.
D. All of the above ✓
88. In outer most shell having the same electronic configuration elements are called-
A. Semblance elements
B. Transition elements
C. Inner transition elements
D. Inert gases ✓
89. When temperature, element and length are constant, then resistance of a conductor is related to the cross sectional area of it as-
A. Proportionally
B. Inversely proportionally ✓
C. Proportional to square of it
D. Inversely proportional to square of it.
90. What is the unit of specific resistance?
A. Ω
B. $\Omega \cdot m$ ✓
C. $(\Omega \cdot m)^{-1}$
D. $(\Omega \cdot m)^{2 \cdot 1}$
91. Which is the heighest fall of the world?
A. Switzerland fall
B. Victoria fall ✓
C. Niagara fall
D. Great falls fall
92. Translate into English. "আমার যদি পাখির মতো ডানা থাকত।"
A. I wish I had the wings of a bird!
B. Had I the wings of a bird!
C. Have I the wings of bird!
D. Wish I have the wings of bird!
93. What is responsible for yellow colour of flower?
A. Anthocyanine named colour grain
B. Betacyanine named colour grain
C. Belaxenthen named colour grain. ✓
D. Solar ray named colour grain
94. Which plants have Rizophore?
A. Selaginella ✓
B. Pteris
C. Cycas
D. Equisetum
95. Which chracteristic is incorrect for parasite?
A. It takes nutrition and shelter froms its host body
B. Some at least harms to it host
C. less reproductive power ✓
D. Unable to live freely
96. Which one is incorrect?
A. At the growing phase, spermatogonia stores a lot of nutrition and chromatine substances.
B. Primary membrane is not formed in spermatogenesis.
C. Primary membrane is formed in Oozenesis
D. All the process of obtaining adulthood is not finished in testes of spermatogenesis ✓
97. The spin of odd numbers of election will be unidirectional according to which rule of the following?
A. Pauli's principle
B. Hand-rule ✓
C. Aufbau principle
D. Ionisation potential rule
98. Depending on the intensity of intermolecular force or the bonding nature in molecules compounds are classified into-
A. no division
B. 2 division
C. 3 division
D. 4 division ✓
99. Which of the following is not the equation of energy of a capacitor?
A. $\frac{1}{2} \frac{Q^2}{C}$
B. $\frac{1}{2} \frac{Q}{C^2}$
C. $\frac{1}{2} CV^2$
D. $\frac{1}{2} QV$
100. Charges present all the while at-
A. the outer surface ✓
B. every where
C. Inner surface
D. The center.

