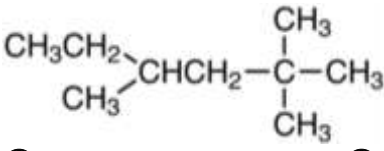




1. If  $\Delta B$  (difference between two sound levels) equals 0, what can be inferred about  $I_2$  and  $I_1$ ?  
(A)  $I_2 = I_1$                       (B)  $I_2 = 2I_1$                       (C)  $I_1 = 2I_2$                       (D)  $I_2 = \frac{I_1}{2}$
2. A \_\_\_\_\_ is a comparison of two quantities of different kinds.  
(A) Ratio                      (B) Rate                      (C) Proportion                      (D) Variation
3. Main difference between Ribose and deoxyribose sugar is due to  
(A) Glycosidic linkage    (B) Peptide linkage                      (C) Number of Oxygen atoms    (D) Number of Carbon atoms
4. Which of the following pair would produce the greatest attractive force if separation between them is set as 1mm?  
(A)  $+2q$  and  $+4q$                       (B)  $-2q$  and  $-4q$                       (C)  $+2q$  and  $-2q$                       (D)  $-4q$  and  $-4q$
5. A function which is both into and one-one is called \_\_\_\_\_ function.  
(A) Bijective                      (B) Surjective                      (C) Injective                      (D) Onto
6. Greenhouse effect is naturally occurring process, life won't be possible without it because  
(A) It Leads to formation of ozone layer                      (B) It Results in earth surface being completely covered in water                      (C) It decrease average temperature of earth                      (D) Warms earth surface, creating habitable environment
7. The coefficient of linear thermal expansion for aluminum is  $25 \times 10^{-6} K^{-1}$ . The value of its volume thermal expansion is \_\_\_\_\_.  
(A)  $8 \times 10^{-9} K^{-1}$                       (B)  $8 \times 10^{-6} K^{-1}$                       (C)  $75 \times 10^{-9} K^{-1}$                       (D)  $75 \times 10^{-6} K^{-1}$
8. The \_\_\_\_\_ of deviations of values measured from their Arithmetic mean is always equal to zero.  
(A) Sum                      (B) Difference                      (C) Multiplication                      (D) Division
9. Stratosphere is a layer that contains ozone layer. It's temperature range in Celsius is  
(A)  $-56$  to  $-2$                       (B)  $15$  to  $-56$                       (C)  $-2$  to  $-92$                       (D)  $-92$  to  $-56$
10. \_\_\_\_\_ of the extreme weather, the match will be played tomorrow.  
(A) therefore                      (B) regardless                      (C) in addition to                      (D) furthermore
11. The role of control rods in a nuclear reactor is to absorb excess \_\_\_\_\_.  
(A) Neutrons                      (B) Alpha particles                      (C) Beta particles                      (D) Gamma rays
12. The trigonometric identity  $(\operatorname{cosec}^2 \theta - 1) \sin^2 \theta =$  \_\_\_\_\_.  
(A)  $\sin^2 \theta$                       (B)  $\cos^2 \theta$                       (C)  $\operatorname{Cosec}^2 \theta$                       (D)  $\sec^2 \theta$
13. Which compound among the following can cause temporary hardness of water?  
(A) Magnesium sulphate                      (B) Magnesium bicarbonate                      (C) Calcium chloride                      (D) Magnesium chloride

14. Which statement accurately describes the convection in vacuum?
- Ⓐ Convection occurs at a slower rate      Ⓑ Convection is not possible      Ⓒ Convection relies on electromagnetic waves      Ⓓ Convection involves movement of charged particles
15. A chord is 4cm from the center of a circle of radius  $5\sqrt{2}$ cm. the length of the chord is \_\_\_\_.
- Ⓐ  $5\sqrt{34}$       Ⓑ  $3\sqrt{34}$       Ⓒ  $\sqrt{34}$       Ⓓ  $2\sqrt{34}$
16. Fresh water needed for human requirements is \_\_\_\_ of the total.
- Ⓐ 2.14%      Ⓑ 97%      Ⓒ 0.2%      Ⓓ 0.61%
17. Two capacitors  $5\mu F$  and  $10\mu F$  are connected in series. Their equivalent capacitance is \_\_\_\_.
- Ⓐ  $3.3\mu F$       Ⓑ  $5\mu F$       Ⓒ  $7.5\mu F$       Ⓓ  $15\mu F$
18. The part of the quadratic formula underneath the square root sign is called \_\_\_\_.
- Ⓐ Discriminant      Ⓑ Root      Ⓒ Quad      Ⓓ Solution
19. Science that deals with the procedure used in extracting metal from its ores, purifying, alloying and creating useful objects from metals is called \_\_\_\_.
- Ⓐ Metallurgy      Ⓑ Concentration      Ⓒ Electrolysis      Ⓓ Distillation
20. Jhon is good\_\_\_\_\_ Mathematics.
- Ⓐ in      Ⓑ at      Ⓒ on      Ⓓ A & C
21. The time independent equation of motion for a body starting from rest is \_\_\_\_.
- Ⓐ  $2aS = V_f^2 - V_i^2$       Ⓑ  $2aS = V_f^2$       Ⓒ  $2aS = -V_i^2$       Ⓓ  $V_f = at$
22. If a, b and c are in continued proportion then “b” is called \_\_\_\_\_ of “a” and “c”.
- Ⓐ Harmonic mean      Ⓑ Arithmetic mean      Ⓒ Geometric mean      Ⓓ Reciprocal
23. Petroleum occurs in all three states of matter depend upon its composition. Petroleum in solid form is called \_\_\_\_.
- Ⓐ Asphalt      Ⓑ Crude oil      Ⓒ Black gold      Ⓓ Natural gas
24. For turn ratio of transformer to be 5, te relation will be \_\_\_\_.
- Ⓐ  $N_s = 5N_p$       Ⓑ  $V_s = 5V_p$       Ⓒ  $I_s = 5I_p$       Ⓓ  $N_p = 5N_s$
25. The lower quartile, the median and the upper quartile which divides the data into four equal parts are called \_\_\_\_.
- Ⓐ Median      Ⓑ Quartile      Ⓒ Mode      Ⓓ Mean
26. Functional group of carboxylic acid is \_\_\_\_.
- Ⓐ  $-\text{OH}$       Ⓑ  $-\text{COOH}$       Ⓒ  $-\text{CHO}$       Ⓓ  $-\text{CO}-$
27. The wave motion transfers energy by \_\_\_\_.
- Ⓐ Moving particles along the wave      Ⓑ Displacing the particles in the direction of wave motion      Ⓒ Creating a vacuum in front of a wave      Ⓓ Causing particles to oscillate around its fixed position

28. If  $\tan\theta = 1$  and  $\theta \in i^{st}$  quartile then  $\cos\theta =$  \_\_\_\_\_.
- (A)  $-\sqrt{2}$  (B)  $\sqrt{2}$  (C)  $-\frac{1}{\sqrt{2}}$  (D)  $\frac{1}{\sqrt{2}}$
29. Test used for detection of alkenes is
- (A) Fehling's test (B) Tollen's test (C) Bayer's test (D) Litmus test
30. Marwan is superior \_\_\_\_\_ Akram.
- (A) from (B) to (C) of (D) with
31. The instrument used for measuring the density of sugar in a liquid is called \_\_\_\_\_.
- (A) Lactometer (B) Barometer (C) Saccharometer (D) Alcoholometer
32. \_\_\_\_\_ is used to obtain the angle of elevation of the top of an object.
- (A) Clinometer (B) Galvanometer (C) Voltmeter (D) Seismometer
33. Deficiency of vitamin D causes
- (A) Premature aging (B) Scurvy (C) Acne (D) Rickets
34. What would be the remaining concentration of 1 g of radioactive substance after 400 days if the half-life is 100 days?
- (A)  $\frac{1}{16}$  (B)  $\frac{1}{8}$  (C)  $\frac{1}{4}$  (D)  $\frac{1}{2}$
35. Two circles that intersect in one point are called \_\_\_\_\_ circles.
- (A) Concentric (B) Tangent (C) Circum (D) Inscribed
36. During chemical equilibrium, rate of forward reaction become equal to rate of backward reaction and the concentration of reactants and products
- (A) Become constant (B) Remain same (C) Decrease (D) Increase
37. The equation for magnification produced by compound microscope is given by \_\_\_\_\_.
- (A)  $m = -\frac{d_i}{f_0} \times \frac{N}{f_e}$  (B)  $m = -\frac{d_i}{f_e} \times \frac{f_o}{N}$  (C)  $m = -\frac{f_0}{d_i} \times \frac{f_e}{N}$  (D)  $m = -\frac{f_0}{d_i} \times \frac{N}{f_e}$
38. If a line is perpendicular to a radius at its end points, the line is a \_\_\_\_\_.
- (A) Perpendicular (B) Congruent (C) Tangent (D) Secant
39. In equilibrium mixture, the concentration of hydrogen and iodine is  $0.4\text{mol.dm}^{-3}$  while hydrogen iodide is  $0.8\text{mol.dm}^{-3}$ . value of  $K_c$  for the following reaction is
- $$\text{H}_2 + \text{I}_2 \rightleftharpoons 2\text{HI}$$
- (A) 0.4 (B) 0.8 (C) 4 (D) 8
40. He is ill \_\_\_\_\_ malaria.
- (A) from (B) with (C) by (D) in
41. Efficiency of electric generator is \_\_\_\_\_.
- (A) 20 % (B) 55 % (C) 85 % (D) 98 %
42. An arc whose end points lies on the sides of the angle and whose other points lies in the interior of the angle is the \_\_\_\_\_ arc of the central angle.
- (A) Minor (B) Major (C) Intercepted (D) Intersecting

43. pH of 0.01 M solution of nitric acid is
- (A) 5 (B) 4 (C) 3 (D) 2
44. If a simple pendulum has a time period of 2 seconds on earth, its time period on moon will be \_\_\_\_\_.
- (A) Less than 2 seconds (B) Greater than 2 seconds (C) Exactly 2 seconds (D) Dependent on pendulum's mass
45. The measure of major arc is the difference between \_\_\_\_\_ and the measure of the related minor arc.
- (A)  $90^\circ$  (B)  $180^\circ$  (C)  $270^\circ$  (D)  $360^\circ$
46. Which of the following acid will not completely ionize in water?
- (A)  $\text{CH}_3\text{COOH}$  (B)  $\text{HCl}$  (C)  $\text{HNO}_3$  (D)  $\text{H}_2\text{SO}_4$
47. Which of the following is an example of primary storage?
- (A) USB (B) Hard disk (C) Floppy Disk (D) Random Access Memory
48. In a circle, the angle in a segment greater than a semicircle is \_\_\_\_\_.
- (A) Acute (B) Right (C) Obtuse (D) Supplementary
49. Carbon's ability of self-linkage is called
- (A) Saturation (B) Catenation (C) Tetravalent (D) Isomerism
50. Everybody enjoys a good match. The word everybody is \_\_\_\_\_ pronoun.
- (A) definite (B) indefinite (C) relative (D) A & C
51. If  $u_1$  and  $u_2$  are the velocities of two bodies (i.e.  $m_1$  and  $m_2$ ) before collision and  $v_1$  and  $v_2$  are the velocities of the said bodies after collision. When  $m_2$  is initially at rest then equation for velocity of  $m_2$  after collision will be \_\_\_\_\_.
- (A)  $v_2 = \frac{m_1 u_1 - m_1 v_1}{m_2}$  (B)  $v_2 = \frac{m_1 u_1 + m_1 v_1}{m_2}$  (C)  $v_2 = \frac{m_1 u_1 - m_1 v_1}{m_1}$  (D)  $v_2 = \frac{m_1 u_1 + m_1 v_1}{m_1}$
52. Any portion of the circumference of a circle is called a/an \_\_\_\_\_ of the circle.
- (A) Angle (B) Arc (C) Altitude (D) Chord
53. All of the following is characteristics of homologous series except
- (A) Same general formula (B) Same chemical properties (C) Each Members differ by  $-\text{CH}_2-$  (D) Same method of preparation
54. If the magnetic field strength increases, the induced emf will \_\_\_\_\_.
- (A) Decrease (B) Increase (C) Remain same (D) Become 0
55. Each \_\_\_\_\_ cube root of unity is reciprocal of the other.
- (A) Rational (B) Irrational (C) Complex (D) Real
56. 
- (A) 3,5,5 trimethylhexane (B) 2,3,4 trimethylhexane (C) 2,4 dimethylheptane (D) 2,2,4 trimethylhexane

57. When Polonium-218 undergoes  $\alpha$ -decay, it converts into \_\_\_\_\_.
- (A) Lead-204                      (B) Lead-206                      (C) Lead-210                      (D) Lead-214
58. The function  $\frac{x^2+3x+2}{x^2+2x+3}$  is \_\_\_\_\_.
- (A) Proper                      (B) Improper                      (C) Partial                      (D) Irrational
59. Which of the following is most reactive?
- (A) Ethyne                      (B) Ethene                      (C) Methane                      (D) Ethane
60. A four lined stanza is called \_\_\_\_\_.
- (A) quatrain                      (B) tercet                      (C) monostich                      (D) octave
61. Displacing pendulum from its equilibrium position is an example of \_\_\_\_\_.
- (A) Stable equilibrium                      (B) Unstable equilibrium                      (C) Neutral equilibrium                      (D) Dynamic equilibrium
62.  $31^\circ 45' =$  \_\_\_\_\_ radians.
- (A) 0.4541                      (B) 0.4451                      (C) 0.5541                      (D) 0.4127
63. Which of the following is also called simplest sugar?
- (A) Polysaccharides                      (B) Oligosaccharides                      (C) monosaccharides                      (D) Cellulose
64. What is the typical response of a thermistor to a temperature increase?
- (A) Resistance increases                      (B) Resistance decreases                      (C) Resistance remains constant                      (D) Resistance varies
65. When "C" is the largest side of the triangle and  $a^2 + b^2 < c^2$  then the triangle is called \_\_\_\_\_ triangle.
- (A) Acute                      (B) Right                      (C) Obtuse                      (D) A and C
66. Peptide linkage is present in
- (A) Carbohydrates                      (B) Fats                      (C) Proteins                      (D) Nucleic acid
67. If the direction of the wire having current is perpendicular to the magnetic field then force on wire is \_\_\_\_\_.
- (A) Increases                      (B) Decreases                      (C) Remains same                      (D) 0
68. If  $n=6$  and  $16 \times 2^m = 4^{n-8}$  then  $m =$  \_\_\_\_\_.
- (A) -6                      (B) 6                      (C) 8                      (D) -8
69. All of the following is related to free radicals except
- (A) Heterolytic fission                      (B) Unpaired electrons                      (C) Highly reactive                      (D) No charge
70. The extremely tired lioness in the jungle is losing patience with her cub. The adjective phrase in this line is \_\_\_\_\_.
- (A) the extremely tired                      (B) losing patience                      (C) her cub                      (D) in the jungle
71. Which of the following has the lowest coefficient of friction?
- (A) Wood on leather                      (B) Steel on ice                      (C) Wood on wood                      (D) Steel on steel

72. For  $i = \sqrt{-1}$ , if  $3i(2 + 9i) = x + 6i$  then value of  $x =$  \_\_\_\_\_.
- (A) -15 (B)  $15i$  (C) -27 (D)  $-27i$
73. How many grams will be there in 2 moles of  $\text{CO}_2$ ?
- (A) 44g (B) 88g (C) 66g (D) 22g
74. In DC motor \_\_\_\_\_ allows the direction of current in the coil to reverse every half cycle.
- (A) The armature (B) The slip rings (C) The brushes (D) The split rings
75. Find the value of  $Z$ , when  $\log_{\frac{1}{9}} 3 = Z$ ?
- (A)  $\frac{1}{2}$  (B)  $-\frac{1}{2}$  (C)  $\frac{1}{3}$  (D) -3
76. Which of the following subshell has higher energy?
- (A) 3s (B) 3p (C) 3d (D) 4s
77. The pitch of a sound is determined by \_\_\_\_\_.
- (A) Amplitude (B) Intensity (C) Frequency (D) Quality
78. If  $b = \sqrt{3} - 2$  then the value of  $b + \frac{1}{b} =$  \_\_\_\_\_.
- (A) 4 (B) -4 (C)  $\sqrt{3}$  (D)  $-\sqrt{3}$
79. Elements in the same period will have same
- (A) Chemical properties (B) Valency (C) Number of valence electrons (D) Number of shells
80. There are \_\_\_\_\_ types of conditional sentences.
- (A) 1 (B) 2 (C) 3 (D) 4
81. The center of mass of a uniform rod lies \_\_\_\_\_.
- (A) At one end of the rod (B) At the midpoint of the rod (C) At center of gravity of the rod (D) Outside the rod
82. Highest common factor of  $(c+4)^2$  and  $c^2-16$  is \_\_\_\_\_.
- (A)  $C+4$  (B)  $c-4$  (C)  $(c+4)(c-4)$  (D)  $(c+4)(c+4)$
83. Which of the following is example of intramolecular forces.
- (A) Covalent bond (B) Hydrogen bond (C) Dipole interaction (D) London dispersion forces
84. The speed of light in water having index of refraction as 1.33 is \_\_\_\_\_.
- (A)  $2.2 \times 10^6 \text{ m/s}$  (B)  $2.2 \times 10^8 \text{ m/s}$  (C)  $3 \times 10^6 \text{ m/s}$  (D)  $3 \times 10^8 \text{ m/s}$
85. The sum of two numbers is 6 and their difference is -4. Then the numbers are \_\_\_\_\_.
- (A) -1, 5 (B) -1, -5 (C) 1, -5 (D) 1, 5
86. In dative bond, electron is donated to
- (A) Donor (B) Electron deficient (C) Electron rich (D) Anion

87. In which direction do electric field lines point around a positive point charge?
- (A) Parallel to the charge axis      (B) Tangential to the charge axis      (C) Radially inward      (D) Radially outward
88. If A(-1,2) and B(3,-4) are any two points in a plane then  $|AB|$ =\_\_\_\_\_.
- (A)  $2\sqrt{12}$       (B)  $2\sqrt{13}$       (C)  $2\sqrt{11}$       (D)  $2\sqrt{10}$
89. Which of the following is kept constant in Charles law
- (A) Temperature      (B) Volume      (C) Pressure      (D) Heat
90. The best hobby is reading. In this sentence reading has been used as\_\_\_\_\_.
- (A) subject      (B) object      (C) predicate nominative      (D) object of a preposition
91. The gravitational force between two objects is 12 N at a distance of 2 m. What is the force at a distance of 4 m?
- (A) 3 N      (B) 6 N      (C) 12 N      (D) 24 N
92. The sum of measure of interior angles of a pentagon is equal to \_\_\_\_\_.
- (A)  $180^\circ$       (B)  $360^\circ$       (C)  $540^\circ$       (D)  $720^\circ$
93. Calculate molarity of a solution containing 12 mol of NaCl in enough water to make  $3\text{dm}^3$  of solution.
- (A) 12M      (B) 6M      (C) 5M      (D) 4M
94. The NOR gate is equivalent to \_\_\_\_\_.
- (A) AND gate with inverted at its inputs      (B) OR gate with inverted at its inputs      (C) AND gate with inverted at its outputs      (D) OR gate with as inverted at its outputs
95. The measure of a line segment joining the mid-points of  $\overline{AB}$  and  $\overline{AC}$  of  $\triangle ABC$  is 3.5cm. find  $m\overline{BC}$ =\_\_\_\_\_
- (A) 4.5 cm      (B) 5.5cm      (C) 6cm      (D) 7cm
96. Oxidation number of sulphur in  $\text{H}_2\text{SO}_4$  is
- (A) +6      (B) +4      (C) +3      (D) +2
97. As compared to thick wires, thin wires have \_\_\_\_\_.
- (A) Higher resistance      (B) Lower resistance      (C) Equal resistance      (D) Variable resistance
98. If sum of the measures of  $\angle A$  and  $\angle C$  of a parallelogram ABCD is  $160^\circ$  then  $m\angle B$ =\_\_\_\_\_.
- (A)  $65^\circ$       (B)  $100^\circ$       (C)  $120^\circ$       (D)  $200^\circ$
99. Which of the following is not alkali metal?
- (A) Lithium      (B) Beryllium      (C) Sodium      (D) Potassium
100. Identity the correct use of apostrophe.
- (A) the Smith's are coming over.      (B) the Smiths' are coming over.      (C) the Smiths are coming over.      (D) the Smith's's are coming over.