

NAT I Medical Chemistry

Sr	Questions	Answers Choice
1	Which of the following has least mass?	A. 2 gram atom of nitrogen B. 3×10^{23} atoms of C C. 1 mole of S D. 7.0 g of Ag.
2	The rotation of two carbon atoms joined by double bond would happen only if	A. Pi bond is broken B. Sigma bond is broken C. Both bonds are broken D. None of above
3	At 500 K the equilibrium constant for reaction cis-C ₂ H ₂ Cl ₂ → trans-C ₂ H ₂ Cl ₂ is 0.6. At the same temperature the equilibrium constant for the reaction trans-C ₂ H ₂ Cl ₂ → cis-C ₂ H ₂ Cl ₂ will be	A. 0.60 B. 1.67 C. 0.66 D. 2.6
4	Covalent compounds are soluble in	A. Polar solvents B. Non-polar solvents C. Concentrated acids D. All solvents
5	Dehydration of glycerol give	A. Propane B. Propene C. Acrolein D. Benzene
6	Bragg's law is given by equation	A. $n \lambda = 2 \sin \theta$ B. $n \lambda = 2 d \sin \theta$ C. $2n\lambda = d \sin \theta$ D. $n\lambda = 1/2 d \sin \theta$
7	Propyne on hydrolysis in presence of H ₂ SO ₄ and HgSO ₄ gives	A. Acetaldehyde B. Acetone C. Formaldehyde D. None
8	A current of 9.65 ampere flowing for 10 minutes deposits 3.0 g of the metal which is monovalent the atomic mass of the metal is	A. 10 B. 50 C. 30 D. 96.5
9	Water (H ₂ O) is liquid while hydrogen sulphide (H ₂ S) is a gas because	A. Water has higher molecular weight B. Hydrogen sulphide is a weak acid C. Sulphur has high electronegativity than oxygen D. Water molecules associate through hydrogen bonding.
10	Which of the following has greatest tendency to lose electron?	A. F B. Fr C. S D. Be
11	Which of the following fluorides does not exist?	A. NF ₅ B. PF ₅ C. AsF ₅ D. SbF ₅
12	Ozone is not	A. An allotrope B. A powerful oxidizing agent C. Paramagnetic D. A bent molecule
13	Setting of plaster of paris involves	A. Oxidation with atmospheric oxygen B. Combination with atmosphere C. Dehydration D. Hydration to yield another hydrate.
14	Which of the following alcohols cannot be produced by treatment of aldehydes or ketones with NaBH ₄ or LiAlH ₄ ?	A. Propanol B. Propanol

		C. 2-Methyl-2-propanol
15	Which is true for an element R present in group 13 of the periodic table?	D. Ethanol
16	Which one of the following elements occurs free in nature?	A. N B. P C. As D. Sb
17	The total number of protons in 10 g of calcium carbonate is ($N_0 = 6.023 \times 10^{23}$)	A. 1.5057×10^{24} B. 2.0478 \times 10^{24} C. 3.0115 \times 10^{24} D. 4.0956 \times 10^{24}
18	Hess's law deals with	A. Changes in heat or reaction B. Rate of reaction C. Equilibrium constant D. Influence of pressure on volume of a gas
19	Wt. of 112 ml of oxygen at NTP on liquefaction would be	A. 0.32 g B. 0.64 g C. 0.16 g D. 0.96 g
20	Al is more reactive than Fe but Al is less easily corroded than Fe Because	A. It is a noble metal B. Oxygen forms a protective reaction easily with water C. Iron undergoes reaction easily with water D. Fe form mono and divalent ions.