NAT I Medical Chemistry

Sr	Questions	Answers Choice
1	The order of reactivity of halogens in aliphatic substitution reactions is	A. Br2 > Cl2 > F2 B. Cl2 > Br2 > F2 C. Cl2 Cl2 > Br2 D. F2 > Br2 > Cl2
2	Water (H2O) is liquid while hydrogen sulphide (H_2S) 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.
3	For most of the chemical reaction the rate of reaction	A. Increases as the reaction proceeds B. Decreases as the reaction proceeds C. May increases or decreases during the reaction D. Remains constant as the reaction
4	Fluorine does not show positive oxidation states due to the absence of	A. d-orbitals B. s-orbitals C. p-orbitals D. None
5	Hydrogen chloride molecule contains	A. Covalent bond B. Double bond C. Co-ordinate bond D. Electrovalent bond
6	The substance used as a smoke screen in warfare is	A. SiCl₄ B. PH₃ C. PCl₅ D. Acetylene
7	Which inorganic precipitate acts as semipermeable membrane?	A. Calcium sulphate B. Barium oxalate C. Nickel phosphate D. Copper ferrocyanide
8	Which of the following transition metal ions will have definite value of magnetic moment?	A. Sc³⁺ B. Ti³⁺ C. Cu⁺ D. Zn²⁺
9	Phosphide ion has the electronic structure similar to that of	A. Nitride ion B. Fluoride ion C. Sodium ion D. Chloride ion
10	Most common reactions of benzene and its derivatives are	A. Electrophilic addition reactions B. Electrophilic substitution reactions. C. Nucleophilic addition reactions D. Nucleophilic substitution reactions
11	If N_A is Avogadro's number then number of valence electrons in 4.2 g of nitride ions N^{3-} is	A. 2.4 N_A B. 4.2 N_A C. 1.6 N_A D. 3.2 N_A
12	A zero order reaction is one whose rate is independent of	A. Temperature of the reaction B. The concentration of the reactants C. The concentration of the products D. The material of the vessel in which the reaction is carried out
13	Which of the following cannot be produced by acidic dehydration of alcohols?	A. Ethers B. Aldehyde

		C. Alkyl Hydrogen sulphate D. Alkene
14	Reaction of ethylamine with chloroform in alcoholic KOH producers	A. CH₃OH B. CH₃NC C. C₂H₅NC D. C₂H₅CN
15	The relative rate of diffusion of a gas (molecular wright - 128) as compared to oxygen is	A. 2 times B. 1/4 C. 1/8 D. 1/2
16	At 500 K the equilibrium constant for reaction cis-$C_2H_2Cl_2$ trans-$C_2H_2Cl_2$ is 0.6. At the same temperature the equilibrium constant for the reaction trans-$C_2H_2Cl_2$ cis-$C_2H_2Cl_2$ will be	A. 0.60 B. 1.67 C. 0.66 D. 2.6
17	Variable valency is generally exhibited by	A. Normal elements B. Transition elements C. Metallic elements D. None of these
18	The total pressure exerted by a number of non reacting gases is equal to the sum of partial pressure of the gases under the same conditions is known as	A. Boyle's law B. Charle's law C. Avogadro's law D. Dalton's law
19	One mole of a gas refers to	A. The number of molecules in one litre of gas B. The number of molecules in one gram of gas C. The number of molecules contained in 12 grams of ¹²C isotope D. The number of molecules in 22.4 liters of a gas at S.T.P.
20	Magnesium keeps on burning in	A. N₂ B. CO₂ C. N₂O D. N₂ as well as CO₂