

NAT I Medical Chemistry

Sr	Questions	Answers Choice
1	Which of the following will not change the concentration of ammonia in the equilibrium $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$; $\Delta H = -\text{kJ}$	A. Increase of pressure B. Increase of temperature C. Decrease of volume D. Addition of catalyst
2	Which of the following transition metal ions will have definite value of magnetic moment?	A. Sc^{3+} B. Ti^{3+} C. Cu^{+} D. Zn^{2+}
3	Which of the following is directly related to Qualitative analysis?	A. Identification B. Separation C. Measurement D. Calculation
4	Which is not a colligative property?	A. Osmotic pressure B. Lowering of vapour pressure C. Depression of freezing point D. Elevation of boiling point
5	The number of atoms in 0.0004 g of magnesium is close to	A. 24 B. 2×10^{20} C. 10^{20} D. 6.02×10^{23}
6	When KClO_3 is heated it decomposes into KCl and O_2 if some MnO_2 is added the reaction goes much faster because	A. MnO_2 decomposes to give O_2 B. MnO_2 provides heat by reacting C. Better contact is provided by MnO_2 D. MnO_2 acts as a catalyst
7	An endothermic reaction is one in which	A. Heat is converted into electricity B. Heat is absorbed C. Heat is evolved D. Heat is converted into mechanical work
8	With increasing principle quantum number the energy difference between adjacent energy levels in H atom	A. Decreases B. Increases C. Remains constant D. Decreases for low value of Z and increases for higher value of Z.
9	Which of the following geometry is associated with the compound in which the central atom assumes $\text{sp}^3 \text{d}$ hybridization?	A. Planar B. Pyramidal C. Angular D. Trigonal bipyramidal
10	An exothermic reaction is one in which the reacting substances	A. Have more energy than the products B. Have less energy than the products C. Have the same energy as the products D. Are at a higher temperature than the products
11	All the naturally occurring processes proceed spontaneously in a direction which lead to	A. Decrease of entropy B. Increase of enthalpy C. Increase of free energy D. Decrease of free energy
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	Evaporation of water is	A. An exothermic change B. An endothermic change C. A process where no heat changes

		occur D. A process accompanied by chemical
14	In the equilibrium $N_2 + 3H_2 \rightleftharpoons 2NH_3 + 22 \text{ kcal}$ the formation of ammonia is favoured by	A. Increasing the pressure B. Increasing the temperature C. Decreasing the pressure D. Adding ammonia
15	Which one of the halogen acid is a liquid?	A. HF B. HCl C. HBr D. HI
16	What quantity of limestone ($CaCO_3$) on heating will give 56 kg of CaO?	A. 1000 kg B. 56 kg C. 44 kg D. 100kg
17	Natural fertilizer provides phosphorus to plants in the form of P_2O_5	A. 1.2 kg B. 2.2 kg C. 3.2 kg D. 4 kg
18	A clathrate may be defined as a	A. Cage compound B. Liquid crystal C. Mixture D. Solid solution
19	Which inorganic precipitate acts as semipermeable membrane?	A. Calcium sulphate B. Barium oxalate C. Nickel phosphate D. Copper ferrocyanide
20	The valence orbital configuration of an element with atomic number 23 is	A. $3d^5$ B. $3d^3, 4s^3, 4p^2$ C. $3d^3, 4s^1, 4p^1$ D. $3d^2, 4s^2, 4p^1$