

## NAT I Medical Chemistry

| Sr | Questions   | Answers Choice  |
|----|---|---|
| 1  | On heating acetaldehyde with ammonical silver nitrate solution we get   | A. $\text{CH}_3\text{OH}$<br>B. Silver acetate<br>C. HCHO<br>D. Silver mirror   |
| 2  | The relative rates of diffusion of a gas (Mol. wt. - 98) as compared to hydrogen will be  | A. 1/7<br>B. 1/5<br>C. 1/4<br>D. 1  |
| 3  | With increasing principle quantum number the energy difference between adjacent energy levels in H atom                         | A. Decreases<br>B. Increases<br>C. Remains constant<br>D. Decreases for low value of Z and increases for higher value of Z.   |
| 4  | In which molecule carbon atom is $\text{sp}^2$ hybridized   | A. $\text{CH}_4$<br>B. $\text{C}_2\text{H}_4$<br>C. $\text{C}_2\text{H}_2$<br>D. None of the above  |
| 5  | Which of the following with aqueous KOH will give acetaldehyde?   | A. 1,2-Dichloroethane<br>B. 1,1-Dichloroethane<br>C. Chloroacetic acid<br>D. Ethyl chloride   |
| 6  | The number of oxygen atoms in 4.4 g of $\text{CO}_2$ is approximately   | A. $1.2 \times 10^{23}$<br>B. $6 \times 10^{22}$<br>C. $6 \times 10^{23}$<br>D. $12 \times 10^{23}$   |
| 7  | Ethanol containing some methanol is called  | A. Absolute spirit<br>B. Rectified spirit<br>C. Power alcohol<br>D. Methylated spirit   |
| 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<br>B. 50<br>C. 30<br>D. 96.5  |
| 9  | A chemical reaction A $\rightleftharpoons$ B is said to be in equilibrium when  | A. Complete conversion of A to B has taken place<br>B. Conversion of A to B is only 50% complete<br>C. Only 10% conversion of A to B has taken place<br>D. The rate of transformation of A to B is just equal to rate of transformation of B to A in the system |
| 10 | Which of the following is different from the other three oxides?  | A. MgO<br>B. SnO<br>C. ZnO<br>D. $\text{Cr}_2\text{O}_3$  |
| 11 | The weight of 11.2 liters of $\text{CO}_2$ at S.T.P. would be   | A. 88 g<br>B. 44 g<br>C. 32 g<br>D. 22 g  |
| 12 | Which has maximum protein content?  | A. Ground nut<br>B. Cow milk<br>C. Egg<br>D. Wheat  |
| 13 | Phosphide ion has the electronic structure similar to that of   | A. Nitride ion<br>B. Fluoride ion<br>C. Sodium ion<br>D. Chloride ion   |
| 14 | The movement of solvent molecules through a semipermeable membrane is called  | A. Electrolysis<br>B. Electrophoresis<br>C. Osmosis<br>D. Diffusion   |

# D. Cataphoresis

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|----|---|--|
| 15 | In a crystal $a \neq b \neq c$ , $\alpha = \gamma = 90^\circ$ and $\beta \neq 90^\circ$ , it is | <p>A. Monoclinic</p> <p>B. Rhombic</p> <p>C. Trigonal</p> <p>D. Tetragonal</p>   |
| 16 | Acetic anhydride is obtained from acetyl chloride by the reaction of                            | <p>A. <math>\text{P}_2\text{O}_5</math></p> <p>B. <math>\text{H}_2\text{SO}_4</math></p> <p>C. <math>\text{CH}_3\text{COOH}</math></p> <p>D. <math>\text{CH}_3\text{COCH}_3</math></p>                 |
| 17 | Bragg's law is given by equation  | <p>A. <math>n\lambda = 2d \sin \theta</math></p> <p>B. <math>n\lambda = 2d \sin \theta</math></p> <p>C. <math>2n\lambda = d \sin \theta</math></p> <p>D. <math>n\lambda = 1/2 d \sin \theta</math></p> |
| 18 | Wt. of 112 ml of oxygen at NTP on liquefaction would be   | <p>A. 0.32 g</p> <p>B. 0.64 g</p> <p>C. 0.16 g</p> <p>D. 0.96 g</p>  |
| 19 | Which of the following process is used to separate insoluble particles from liquids?            | <p>A. Separation</p> <p>B. Filtration</p> <p>C. Crystallization</p> <p>D. Condensation</p>   |
| 20 | Which one is not a pollutant normally?  | <p>A. Hydrocarbons</p> <p>B. Carbon dioxide</p> <p>C. Carbon monoxide</p> <p>D. Sulphur dioxide</p>  |