

## Chemistry General Science Test Hard Mode

Sr	Questions	Answers Choice
1	For the reaction $2A(g) + B(g) \rightleftharpoons 3C(g) + D(g)$ two moles each of A and B were taken into a flask. The following must always be true when the system attained equilibrium	A. $[A] = [B]$ B. $[A] &lt; [B]$ C. $[B] = [C]$ D. $[A] > [B]$
2	Which of the following substances is used as an antiknock compound?	A. Tetraethyl lead B. Lead tetrachloride C. Lead acetate D. Ethyl acetate
3	Carbon atom holding halogen in aryl halides is	A. $Sp^2$ -hybridised B. $Sp$ C. $Sp^3$ -hybridised D. $Sp$ -hybridised
4	Addition of iron filings to $CuSO_4$ solution caused precipitation of Cu owing to the	A. Reduction of $Cu^{2+}$ B. Oxidation of $Cu^{2+}$ C. Reduction of Fe D. Reduction of $Fe^{3+}$
5	$\Delta H_{\text{Neutralisation}}$ is always	A. Positive B. Negative C. Zero D. Positive or negative
6	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
7	Which of the following units represents largest amount of energy?	A. Calorie B. Joule C. Erg D. Electron vol.
8	The carbon atoms in calcium carbide are held by	A. Ionic bonds B. 2 sigma bonds C. 2 covalent one co-ordinate bond D. $2\pi$ and one $\sigma$ bond
9	The ratio of close packed atoms to tetrahedral holes in cubic close packing is	A. 1 : 1 B. 1 : 2 C. 1 : 3 D. 2 : 1
10	Water ( $H_2O$ ) 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.
11	Reaction of ethylamine with chloroform in alcoholic KOH produces	A. $CH_3OH$ B. $CH_3NC$ C. $C_2H_5NH_3Cl$ D. $C_2H_5NH_2Cl$
12	The effect of increasing the pressure on the following equilibrium $2A + 3B \rightleftharpoons 3A + 2B$ is	A. Forward reaction is favoured B. Backward reaction is favoured C. No effect

		D. None of the above
13	The formula of calcium cyanamide is	A. $\text{Ca}(\text{CN})_2$ B. $\text{CaC}_2$ C. $\text{CaCN}$ D. $\text{CaCHNH}_2$
14	Which has largest first ionization energy?	A. Li B. Na C. K D. Rb
15	Which of the following statement regarding catalyst is not true?	A. A catalyst remains unchanged in composition and quantity at the end of the reaction B. A catalyst can initiate a reaction C. A catalyst does not alter the equilibrium in a reversible reaction D. Catalysts are sometimes very specific in respect of reaction
16	Which one of the following elements occurs free in nature?	A. N B. P C. As D. Sb
17	Which metal is protected by a layer of its own oxide?	A. Al B. Ag C. Au D. Fe
18	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. $n\lambda = 1/2 d \sin \theta$
19	Ammonia gas used directly as a fertilizer is injected into the soil at a depth of about	A. Two inches B. Three inches C. Five inches D. Six inches
20	The structure of $\text{XeF}_6$	A. Distorted octahedral B. Pyramidal C. Tetrahedral D. None of the above