

## Chemistry General Science Test Hard Mode

Sr	Questions	Answers Choice
1	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
2	Hybridization explain the----- of orbitals	A. Type of Bonding B. Shapes C. Shape and Type of bonding D. None of above
3	Which of the following imparts violet colouration to the non-luiminous flame of Bunsen burner?	A. NaCl B. BaCl <sub>2</sub> C. CaCl <sub>2</sub> D. KCl
4	Octane number is zero for	A. n-Heptane B. Isooctane C. n-Hexane D. Isoheptane
5	Which of the following value of $\Delta H_f^\circ$ represent that the product is least stable?	A. -94.0 kcal mol <sup>-1</sup> B. -231.6 kcal mol <sup>-1</sup> C. +21.4 kcal mol <sup>-1</sup> D. +64.8 kcal mol <sup>-1</sup>
6	Octane number can be changed by	A. Isomerisation B. Alkylation C. Cyclisation D. All of these
7	Vital force theory was rejected by	A. Berzelius B. Kolbe C. Wholer D. Lavoiser
8	The equilibrium $\text{Cr}_2\text{O}_7^{2-} \rightleftharpoons 2\text{CrO}_4^{2-}$ is shifted to right in	A. An acidic medium B. A basic medium C. A neutral medium D. It does not exist
9	The mass of the neutron is of the order of	A. 10 <sup>-23</sup> kg B. 10 <sup>-24</sup> kg C. 10 <sup>-26</sup> kg D. 10 <sup>-27</sup> kg
10	The rate of reaction between A and B increases by a factor of 100 when the concentration with respect to A is increased 10 folds the order of reaction w.r.t A is	A. 10 B. 1 C. 4 D. 2
11	Which of the following species participate in sulphonation of benzene ring?	A. H <sub>2</sub> SO <sub>4</sub> B. HSO <sub>3</sub> <sup>-</sup> C. SO <sub>3</sub> <sup>2-</sup> D. SO <sub>2</sub>
12	Which of the following has greatest reducing power?	A. HI B. Hbr C. HCl D. HI

13	Bragg's law is given by equation	<p>A. <math>n \lambda = 2 d \sin \theta</math></p> <p>B. <math>n \lambda = 2 d \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>
14	All the naturally occurring processes proceed spontaneously in a direction which lead to	<p>A. Decrease of entropy</p> <p>B. Increase of enthalpy</p> <p>C. Increase of free energy</p> <p>D. Decrease of free energy</p>
15	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>
16	Carbon atom holding halogen in aryl halides is	<p>A. <math>sp^2</math>-hybridised</p> <p>B. <math>sp^3</math>-hybridised</p> <p>C. <math>sp</math>-hybridised</p> <p>D. <math>d</math>-hybridised</p>
17	Al is more reactive than Fe but Al is less easily corroded than Fe Because	<p>A. It is a noble metal</p> <p>B. Oxygen forms a protective reaction easily with water</p> <p>C. Iron undergoes reaction easily with water</p> <p>D. Fe form mono and divalent ions.</p>
18	The rate of a reaction that does not involve gases does not depend upon	<p>A. Pressure</p> <p>B. Temperature</p> <p>C. Concentration</p> <p>D. Catalyst</p>
19	Which has the largest radius?	<p>A. <math>CO^{3+}</math></p> <p>B. <math>Mn^{3+}</math></p> <p>C. <math>Fe^{3+}</math></p> <p>D. <math>Cr^{3+}</math></p>
20	A cell constant is generally found by measuring the conductivity of aqueous solution of	<p>A. <math>BaCl_2</math></p> <p>B. KCl</p> <p>C. NaCl</p> <p>D. <math>MgCl_2</math></p>