

## NAT II Physical Science Chemistry

Sr	Questions	Answers Choice
1	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 = \frac{1}{2} d \sin \theta</math></p>
2	In crystal structure of sodium chloride, the arrangement of Cl <sup>-</sup> ions is	<p>A. Fcc</p> <p>B. Both Fcc and bcc</p> <p>C. Bcc</p> <p>D. None of these</p>
3	Crystal can be classified in to ----- basic crystal habits	<p>A. 7</p> <p>B. 3</p> <p>C. 14</p> <p>D. 3</p>
4	Ionic solids with defects, contain	<p>A. Equal number of cation and anion vacancies</p> <p>B. Interstitial anions and anion vacancies</p> <p>C. Cation vacancies only</p> <p>D. Cation vacancies and interstitial cations</p>
5	Which of the following is an example of body centred cube?	<p>A. Magnesium</p> <p>B. Zinc</p> <p>C. Copper</p> <p>D. Sodium</p>
6	The pure crystalline substance on being heated gradually first forms turbid liquid at constant temperature and still at higher temperature turbidity completely disappears. The behaviour is a characteristic of substance forming	<p>A. Allotropic crystal</p> <p>B. Liquid crystals</p> <p>C. Isomeric crystals</p> <p>D. Isomorphous crystals</p>
7	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	<p>A. Boyle's law</p> <p>B. Charle's law</p> <p>C. Avogadro's law</p> <p>D. Dalton's law</p>
8	The vapour density of a gas is 11.2. The volume occupied by 11.2 g of this gas at N.T.P. is	<p>A. 22.4 litres</p> <p>B. 11.2 litres</p> <p>C. 1 litre</p> <p>D. 2.24 litres</p>

9	Wt. of 112 ml of oxygen at NTP on liquification would be	A. 0.32 g B. 0.64 g C. 0.16 g D. 0.96 g
10	The weight of 11.2 litres of CO <sub>2</sub> at S.T.P. would be	A. 88 g B. 44 g C. 32 g D. 22 g
11	The number of atoms in 0.004 g of magnesium is close to	A. 24 B. $2 \times 10^{20}$ C. $10^{20}$ D. $6.02 \times 10^{23}$
12	One mole of 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 <sup>12</sup> C isotope D. The number of molecules in 22.4 litres of a gas at S.T.P.
13	The relative rates of diffusion of a gas (molecular weight = 128) as compared to oxygen is	A. 2 times B. 1/4 C. 1/8 D. 1/2
14	The kinetic theory of gases predicts that total kinetic energy of a gaseous assemble depends on	A. Pressure of the gas B. Temperature of the gas C. Volume of the gas D. Pressure, temperature, and volume of the gas.
15	Which of the following statement is correct if the intermolecular forces in liquids A, B and C are in the order A < B < C?	A. B evaporates more readily than A B. B evaporates less readily than C C. A and B evaporates at the same rate D. A evaporates more readily than C