NAT II Physical Science Chemistry

Sr	Questions	Answers Choice
1	$\Delta H_{neutralisation} is\ always$	A. positive B. Negative C. Zero D. Positive or negative
2	The heat evolved in combustion of rhombic and monoclinic sulphur are -70960 and -71030 cal mol^{-1}respectively. What will be heat of conversion of rhombic sulphur to monoclinic?	A. 70960 calories B. 71030 calories C. -70 calories D. +70 calories
3	Hess's law deals with	A. Changes in heat or reaction B. Rate of reaction C. Equilibrium constant D. Influence of pressure on volume of a gas.
4	An endothermic 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.
5	Which of the following units represents largest amount of energy?	A. Calorie B. Joule C. Erg D. Electron vol.
6	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 reaction.
7	Inter molecular forces in solid hydrogen are	A. Covalent forces B. Van der Waal forces or London dispersion forces C. Hydrogen bonds D. All of these.
8	According to MO theory, the species O^{+}_{2}	A. Bond order of 2.5 B. Three unpaired electrons C. Diamagnetic character D. Stability lower then O₂
9	The bond angle H-O-H in ice is closest to	A. 120° . 28' B. 60° C. 90° D. 109°
10	The carbon atoms in calcium carbide are held by	A. Ionic bonds B. Sigma bonds C. 2 covalent, one co-ordinate bond D. 2π and

		rgb(255, 255, 224);">π and oneσ bond
11	Outermost shells of two elements X and Y have two and six electrons respectively. If they combine, the expected formula of compound will be	A. XY B. X₂Y C. X₂Y₃ D. XY₂
12	Which of the following geometry is associated with the compound in which the central atom assumes sp^3d hybridization?	A. Planar B. Pyramidal C. Angular D. Trigonal bipyramidal
13	Covalent compounds are soluble in	A. Polar solvents B. Non-polar solvents C. Concentrated acids D. All solvents
14	Among the alkaline earth metals the element forming predominantly covalent compounds is	A. Be B. Mg C. Sr D. Calcium
15	Hydrogen chloride molecule contains	A. Covalent bond B. Double bond C. Co-ordinate bond D. Electrovalent bond