NEET Predicted Question Paper for Chemistry (2)

1. The IUPAC name of an element with atomic number 119 is

- 1) Ununennium
- 2) Unnilennium
- 3) Unununnium
- 4) ununoctium

2. Choose the correct statement:

- 1) Diamond and graphite have two dimensional network
- 2) Diamond is covalent and graphite is ionic
- 3) Diamond is sp3 hybridised and graphite is sp3 hybridized
- 4) both diamond and graphite are used as dry lubricants.

3. Identify the incorrect statement from the following

- 1) Alkali metals react with water to form their hydroxides
- 2) The oxidation number of K in KO2 is + 4
- 3) Ionisation enthalpy of alkali metals decreases from top to bottom in the group
- 4) Lithium is the strongest reducing agent among the alkali metals

4. The pH of the solution containing 50mL each of 0.10 M sodium acetate and 0.01M acetic acid is [Given pKa of CH3COOH = 4.57]

- 1) 5.57
- 2) 3.57
- 3) 4.57
- 4) 2.57

5. Gadolinium has a low value of third ionization enthalpy because of

- 1) small size
- 2) high exchange enthalpy
- 3) high electronegativity
- 4) high basic character

6. In one molal solution that contains 0.5 mole of a solute, there is

- 1) 500 mL of solvent
- 2) 500 g of solvent

- 3) 100 mL of solvent
- 4) 100 g of solvent

7. The incorrect statement regarding chirality is

- 1) SN1 reaction yields 1: 1 mixture of both enantiomers
- 2) The product obtained by SN2 reaction of haloalkane having chirality at the reactive site shows inversion of configuration
- 3) Enantiomers are superiomposable mirror images on each other
- 4) A racemic mixture shows zero optical rotation

8. Which of the following statements is not correct about diborane?

- 1)There are two 3-centre -2-electron bonds
- 2) The four terminal B-H bonds are two centre two electron bonds
- 3) The four terminal Hydrogen atoms and the two boron atoms lie in one plane
- 4) Both the Boron atoms are sp2 hybridised
 - 9. A 10.0 L flask contains 64g of oxygen at 270C. (Assume O2 gas is behaving ideally). The pressure inside the flask in bar is (Given R = 0.0831 L bar K-1 mol-1)
 - 1) 2.5
 - 2) 498.6
 - 3) 49.8
 - 4) 4.9



10. Find the emf of the cell in which the following reaction takes place at 298 K

$$Ni(s) + 2Ag^{+}(0.001M) \rightarrow Ni^{2+}(0.001M) + 2Ag(s)$$

(Given that $E_{cell}^{o} = 10.5 \text{ V}, \frac{2.303 \text{ RT}}{F} = 0.059 \text{ at } 298 \text{ K})$

- 1)1.385 V
- 2) 1.385 V
- 3) 0.9615 V
- 4) 1.05 V