

Makawanpur Multiple Campus
First Terminal Examination-2080

Grade: XI Subject: Chemistry Time: 1.5 hours FM: 37.5

Group A [Multiple choice questions] [6X1=6]

1. What is the unit for wave number?
a) m ~~b. cm~~ c. m^{-1} d. cm^{-1}
2. The atomic number of silver is
a) 37 ~~b. 47~~ c. 73 d. 74
3. The functional group of aldehyde is
a) -OH b. -CHO c. -O- ~~d. -NH₂~~
4. Who proposed vital force theory?
a) Berzelius b. Avogadro c. Wöhler ~~d. Dalton~~
5. One mole of oxygen gas at NTP has a volume of
~~a. 22.4 L~~ b. 10.4 L c. 21.4 L d. 22.4 mL
6. What is the melting point of ammonia?
a) -78 °C b. -48 °C ~~c. 78 °C~~ d. 48 °C

Group B [short answer questions] [5X5=25]

- ~~7. Write the postulates of Bohr atomic model. [5]~~
- ~~8. Describe law of multiple proportions with appropriate example. [5]~~
- ~~9. Define electronegativity, ionization energy and effective nuclear charge.
What is the difference between electronegativity and electron affinity? [3+2]~~
10. Describe the allotropes of carbon. Write the preparation and uses of phosphine. Write any two general characteristics of alkaline earth metal. [2+2+1]

OR, 10.6 g of pure sodium carbonate is treated with 7.9 g of HCl to produce NaCl, H₂O and CO₂. [2+1+1+1]

- a. Find the limiting reagent with proper reason.
- b. Calculate the number of mole of unreacted reagent leftover.
- c. What volume of CO₂ gas is produced at NTP?
- d. Calculate the mass of NaCl formed.
11. Describe aliphatic, alicyclic, aromatic and heterocyclic compounds with examples. [5]

Group C [Long answer questions] [6.5]

12. What is meant by a functional group and homologue? Write down the general characteristics of homologous series. Write the notation for the functional group isocyanides. [2+4+0.5]

OR, The cost of table sugar [C₁₂H₂₂O₁₁] is Rs 24 per kg. Calculate its cost per mole. How many number of oxygen molecules is present in 3 litres of CO₂ at STP? Define nucleophile and electrophile with appropriate examples. [2+2+2.5]

All the best!