

CHEMISTRY MODEL QUESTION PAPER

CHEMISTRY GENERAL

SEMESTER-II

COURSE NAME - CHEMGT-2

Each question carry two marks

1. What are Miller indices?
2. Define critical constants.
3. What do you mean by dipole moment?
4. What are liquid crystals? What are their use?
5. What is crystallography? Name three fundamental laws of crystallography?
6. Define lattice energy.
7. Write two postulates of kinetic theory of gases.

Each question carry five marks

1. What is Born-Haber cycle? How can we obtain lattice energy of solid with its help?
2. Compare basicity among hydrides of group 15 elements with reason.
3. Define order and molecularity of a reaction? Calculate the root mean square (r.m.s.) velocity of CO_2 at 227°C .
4. Why melting point of NaCl is higher than that of AlCl_3 ? SO_2 molecule is polar whereas CO_2 molecule is nonpolar explain?
5. Discuss the shape of ammonia molecule. Why electron affinity of Cl is greater than that of F ?
6. Write short notes on Fajan's rule and its application.

Each question carry ten marks

1. Draw molecular orbital energy level diagram for oxygen molecule. Discuss its properties.
2. Write brief note on VBT and its limitations.