Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 11

Bachelor of Science - Honours (Mathemtics) (Sem.-1)

INORGANIC CHEMISTRY

Subject Code : UC-BHCL-I-102-19

M.Code : 77319

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

1) Write briefly :

a) What is the normalized wave function?

b) What is the Aufbau's Principle?

c) What are semiconductors?

d) What is the Bent's rule?

e) What is electronegativity?

f) What are bonding and antibonding molecular orbitals?

g) What is the inert pair effect?

h) Explain the term allotropy.

i) Explain the bond moment.

j) Explain the structure of Beryllium acetate.

SECTION-B

2) Explain the quantum numbers and their significance

3) Explain the radial and angular distribution curves.

4) Explain the Born Haber cycle in detail. Discuss in detail applications of Born Haber cycle.

5) Explain the defects in solids.

SECTION-C

6) Explain the Molecular orbital diagram of N_2.

7) Explain the VSEPR theory.

8) Explain the allotropy in the case of carbon.

9) Explain the structure of Water.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.