Roll No. Total No. of Pages: 02

Total No. of Questions: 09

B.Sc. (Non Medical) (2018 Batch) (Sem.-2) INORGANIC CHEMISTRY-II

Subject Code : BSNM-201-18 M.Code : 76299

Time: 3 Hrs. Max. Marks: 50

## **INSTRUCTIONS TO CANDIDATES:**

- SECTION-A is COMPULSORY consisting of TEN questions carrying ONE marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

## **SECTION-A**

# 1) Write briefly:

- a) What compounds are formed when Li, Na, and K combine with oxygen?
- b) Why does sodium metal form peroxide in preference to oxide.?
- c) "Boric acid is not an acid in the protonic concept", Explain.
- d) "Nitric oxide becomes brown when released in air". Explain
- e) What are the d-d transitions?
- f) Explain the paramagnetic.
- g) What hard hard interactions are ionic?
- h) What is the coordination number?
- i) What is inert pair effect?
- j) Explain the paramagnetisms.



## **SECTION-B**

- 2) Discuss the structure of A1C1<sub>3</sub>.
- 3) Explain the structure of  $SF_6$  and  $SF_4$ .
- 4) Explain the diborane.
- 5) Explain why the first ionization energy of copper is higher than those of alkali metals while second and third energies are lower?
- 6) Discuss the electronic configuration of Nb and Au.

## **SECTION-C**

- 7) Explain the classification of acids and bases as hard and soft.
- 8) Explain the silicates
- 9) Explain the complexes of Magnesium with EDTA.

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.

**2** M-76299 (S105)-2357