

21261

**B. Sc. Chemistry (Hons.) 2nd Semester  
Examination – May, 2019**

**INORGANIC CHEMISTRY**

Paper : CH(H)-201

*Time : Three Hours ]*

*[ Maximum Marks : 40*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all. Question. No. 1 is *compulsory*. Select *one* question from each Section

1. (a) Name the Radioactive element in group-1.  $1 \times 8 = 8$
- (b) Name the Acid radical which do not reacts with dil. and conc.  $H_2SO_4$ .
- (c) Define Solubility product.
- (d) Name the Strongest reducing agent in group-1.
- (e) Which element shows inert pair effect in group-13 ?
- (f) Which element has highest electron affinity in group-17 ?
- (g) What is the shape of  $XeF_2$  ?
- (h) What is the formula of Diborane ?

**SECTION – I**

2. (a) Fill in the blanks : 4, 2, 2
  - (i) The ..... is the hardest element in group-1 of periodic table.

P. T. O.

- (ii) The ..... can form peroxide in group-I of periodic table.
- (iii) The Alkaline earth metals have ..... valence shell configuration.
- (iv) The carbonates of ..... and ..... in group- 2 of periodic table are unstable towards heat.

- (b) Why *Be* and *Mg* gives no colour in flame ?
- (c) Explain the order of basicity among group-I hydroxides in the periodic table.

3. (a) Why 1st ionization energy of group-2 elements is higher than group-I elements while 2nd ionization energy of group-I elements is higher than group-2 elements ? 2, 2, 2, 2

- (b) Define diagonal relationship with an example.
- (c) Out of *Be* or *Mg*, which has lowest ionisation energy and why ?
- (d) Why lithium is the strongest reducing in the group-1 of periodic table ?

**SECTION – II**

4. (a) Fill in the blanks :
  - (i) The basic radicals in group-IV is/are ..... in inorganic analysis.
  - (ii) The group reagent for group-II of basic radicals is ..... in inorganic analysis.

(2)