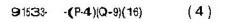
(c)	What are interhalogen compounds? Why	these
	are more reactive then parent halogens?	2

- **9.** (a) Describe bonding and structure of XeF_6 .
 - (b) Why noble gases are also called 2
 - (i) Zero valent gases
 - (ii) Inert gases
 - (c) What were the reasons for the Late discovery of noble gases?



Roll No.....

91533

B. Sc. 2nd Semester (Chemistry) (Hons.) (New Scheme)

Examination - May, 2016

INORGANIC CHEMISTRY

Paper: 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, selecting one question from each Section. Question No. 1 is compulsory.

All questions carry equal marks.

1. (a) Define common ion effect.

1 × 8 = 8

- (b) Out of $CH_3CH_2CH_2CH_2$ Li & CH_3OLi , which is organisme tallic compound?
- (c) Beryllium shows a diagonal relationship with which element?

91533-38°(P4)(Q9)(16)

P. T. O.

(d)	Why	do	helium	&c	neon (do	not	form	dathrate
	compounds?								

- (e) What is inert pair effect?
- (f) What is the chemical formula of Laughing gas?
- (g) What are Zeolites?
- (h) Which reagent is used for the detection and estimation of Nickel?

SECTION - A

- 2. (a) Potassium hydroxide is a stronger base than barium hydroxide. Why?
 - (b) Why alkali metals are strong reducing agents? 3
 - (c) What are the functions of Mg^{2+} and Ca^{2+} in biosystem?
- **3.** (a) Why Lithium forms monoxide, sodium forms peroxide & others form superoxide?
 - (b) Explain the order of size among the group I ions in aqueous solution.
 - (c) How will you differentiate precipitation, coprecipitation and post-precipitation?

SECTION - B

- 4. (a) Give chemistry of chromy I chloride test.
 - (b) What are interfering radicals? Why they are called so?
- 91533- -(P-4)(Q-9)(16) (2)

- (c) Why H₂S gas is passed in presence of dil. HCl for group - II radicals & H₂S is passed in presence of NH₄OH for group - IV radicals?
- **5.** (a) Identify acid and basic radicals in $NaHCO_3$, $SnCl_2$, $Cr_2(SO_4)_3$, $Pb(NO_3)_2$
 - (b) How flame test is conducted? Which basic radicals give this test?
 - (c) How nitrate and nitrite ions are identified in presence of each other?

SECTION - C

- **6.** (a) What do you understand by back-bonding? Why it occurs in trihalides of boron and not in trihalides of aluminium?
 - (b) Explain the diagonal relationship between Beron and silicon.
- 7. (a) Draw structures of phosphorous acid hypophosphorous acid & orthophosphoric acid. Give their basicity.
 - (b) What is inert pair effect? Give reason.
 - (c) Explain the structure of diborane.

SECTION - D

- 8. (a) What are silicates? Explain cyclic silicates. 3
 - (b) What are fullerenes? Give their important uses. 3
- 91533- (P-4)(O-9)(16) (3)