Exam Seat No:_____

____ **C.U.SHAH UNIVERSITY Summer Examination-2017**

Subject Name : Chemistry-VIII

	Subject	Code : 4SC04CHC2	Branch: B.Sc. (Chemistry	7)
	Semester	:4 Date: 18/04/2017	Time : 10:30 To 01:30	Marks : 70
	Instructio (1) U (2) I (3) I (4) A	ns: Use of Programmable calculator & any ot nstructions written on main answer book Draw neat diagrams and figures (if necess Assume suitable data if needed.	her electronic instrument is particular are strictly to be obeyed. ary) at right places.	rohibited.
Q-1	a)	Attempt the following questions: Give the smallest radioactive particle. i) ${}_{1}^{1}H$ ii) ${}^{2}H$	iii) $_{1}^{3}H$ iv) None of this	(14) (1)
	b) c) d)	Give the shape of XeF_6 . Define: 18 e ⁻ rule Give the structure of H_2O_2 .	,	(1) (1) (1)
	e) f) g)	Give any one preparation of Organo ber Define: Ambident ligand Give any one chemical properties of der	yllium. uterium.	(1) (1) (1)
	h) i) j)	Give any one preparation of XeF ₂ . Draw the structure of Trimethyl Alumir Draw the structure of EDTA ⁻³ .	lium.	(1) (1) (1)
	k) l) m)	Define: Organometallic compound Give IUPAC nomenclature of following	g compounds.	(1) (1) (1)
A ++ -	n)	i) $[Cu(NH_3)_4]SO_4$ Give the common electronic configurations from Q 2 to Q 8	on of noble gases.	(1)
Aut	inpt any i	our questions from Q-2 to Q-8		
Q- 2	2 A. B. C.	Attempt all questions Discuss the structure and hybridization Explain Optical isomerism in detail. Write a note on secondary valency.	in square planar complex [Co	(14) $(NH_3)_6]^{+3}$. (5) (5) (4)
Q-3	A. B.	Attempt all questions Write a note on Clathrate Compounds. Discuss the structures of XeF ₄ and XeF ₆	5.	(14) (7) (7)
Q-4	A.	Attempt all questions Discuss the synthesis and structure of Z	eise salt K[PtCl ₃ (C ₂ H ₄)]	(14) (7)

B. Explain preparation and properties of Organo lithium compounds.



(7)

Q-5		Attempt all questions	(14)	
	•	Explain position of hydrogen in the periodic table and give its resemblance with	(7)	
	A.	alkali metals and halogen.		
	В.	Discuss the uses of hydrogen.	(7)	
Q-6		Attempt all questions		
-	А.	Discuss the application of Noble gases.		
	В.	Explain VBT in detail.	(7)	
Q-7		Attempt all questions	(14)	
-	А.	Discuss the structure of Ferrocene.	(7)	
	В.	Discuss the preparation and properties of XeF_4 and XeF_6 .		
Q-8		Attempt all questions	(14)	
c	А.	Write a note on Nascent hydrogen.	(5)	
	B.	Explain preparation and properties of hydrogen.		
	C.	Calculate 18 e ⁻ and E.A.N rule in the following complexes.		
		a) $[Mn(CO)_6]^+$ b) $[Ti(CO)_6]^{-2}$		
		c) $[Cu(CO)_4]^+$ d) $[Cr(CO)_6]^+$		

