

Enrollment No: _____

Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2020

Subject Name: Chemistry-I

Subject Code: 4SC01CHE1

Branch: B.Sc. (All)

Semester: 1

Date: 04/03/2020

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1 Attempt the following questions: (14)

- a) Give the example of partially miscible liquids. (1)
- b) Define: covalent radius. (1)
- c) What is the definition of solution? (1)
- d) Write types of elimination reaction. (1)
- e) Give the example of sp hybridization. (1)
- f) What is isothermal process? (1)
- g) Define: Substitution reaction. (1)
- h) What is electron affinity? (1)
- i) What is Lewis acid? (1)
- j) Give the structure of cyclo butadiene. (1)
- k) What is ionic radius? (1)
- l) Define: E_1 reaction (1)
- m) Write bond angle for sp hybridization. (1)
- n) What do you mean by closed system in thermodynamic? (1)

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

- a) Write periodic trend and factor affecting on the magnitude of ionic radius. (7)
- b) Explain elimination reaction briefly. (7)

Q-3 Attempt all questions (14)

- (a) Give the definition of mole fraction and what is mole fraction of each component for 5% (w/w) solution of KCl? [molecular weight : KCl=74.5, H₂O=18] [5]
- (b) Give the definition of molality and calculate that for 10% (W/W) solution of NaCl what is the mole fraction of each component in the solution? (Molecular weight: NaCl= 58.5 and H₂O= 18) [5]
- (c) Write any four rules for VSEPR theory with short description of it. [4]



