

Enrollment No: _____

Exam Seat No: _____

C. U. SHAH UNIVERSITY
Summer Examination-2022

Subject Name : Analytical Chemistry-II

Subject Code : 4SC05ACH1

Branch : B.Sc. (Chemistry)

Semester: 5

Date: 27/04/2022

Time: 11:00 To 02:00

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) Define qualitative analysis.	01
	b) What is molarity?	01
	c) Define conductance.	01
	d) What do you mean by standard deviation?	01
	e) Give the example of standard deviation.	01
	f) Define quantitative analysis.	01
	g) Write the unit of conductance.	01
	h) What do you mean by solubility?	01
	i) Define pH.	01
	j) Define normality.	01
	k) Define acid base titration.	01
	l) What are significant figures?	01
	m) Write the examples of weak acids.	01
	n) Write the test for Cl ⁻ ion detection.	01

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

Q-2	Attempt all questions	(14)
A	Discuss operational and personal errors.	07
B	Discuss the steps involving in minimization of errors.	07
Q-3	Attempt all questions	(14)
A	Discuss absolute error and relative error.	05
B	Write a note on	05
	1. Titrant	
	2. Reagent	
C	Write a note on Argentometric titration.	04
Q-4	Attempt all questions	(14)
A	Discuss Importance of Q-test and T-test.	05
B	Explain Ostwald's law.	05



C	Write a note on electric transport, conductance in metals	04
Q-5	Attempt all questions	(14)
A	Discuss Separations of following species in presence of each other	07
	1. Cl^- , Br^- , I^-	
	2. PO_4^{3-} , AsO_3^{3-} , AsO_4^{3-}	
B	Discuss the neutralization, redox, precipitation titrations.	07
Q-6	Attempt all questions	(14)
A	Discuss the cell constant and its importance.	07
B	Discuss Volhard's method.	07
Q-7	Attempt all questions	(14)
A	Discuss applications of Redox Titration.	07
B	Write a note on Fazan's method and Mohr's method	07
Q-8	Attempt all questions	(14)
A	Lambert-Beer's Law Derivation and applications.	07
B	Discuss Kohlrausch law and its importance.	07

