Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: 2020-21, F.Y.M.SC	**School of Science**	**Department: Chemistry**
Course Code: CHS-507	**Course Title: Analytical Chemistry-I**	**Semester : I (Odd)**
Day and Date: Thursday, 16th July., 2021	**Re-End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following**			
a)	The normality of a solution determined by four different titrations. The results being 0.2040, 0.2044, 0.2038, 0.2041. Calculate mean of results, average deviation, relative average deviation, standard deviation and relative standard deviation.	8	L3	1
b)	Explain the plate theory of chromatography. Describe column and column packing in HPLC.	8	L3	2
	OR			
c)	Explain instrumentation of gas chromatography and discuss various types of detectors used in gas chromatography	8	L3	2
Q.2	**Answer/Solve the following**			
a)	What is mean by sampling? Explain sampling techniques used for solid, liquid and gases in Infrared spectroscopy.	8	L2	3
b)	Discuss in detail Instrumentation of UV-visible double beam spectrophotometer.	8	L3	3
	OR			
c)	What are the fundamental modes of vibrations? Explain in detail Instrumentation of Infrared spectroscopy with schematic diagram.	8	L3	3
Q.3	**Answer/Solve the following**			
a)	What are the three types of precipitation titration? Explain in detail.	9	L3	4
b)	Give an account of stepwise and overall formation constant and different types of EDTA titration	9	L4	4
	OR			
c)	Explain the applications of iodine as a redox reagent in redox titration.	9	L4	4

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