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: S. Y. M.Sc. 2020-21	**School of Science**	**Department: Chemistry**
Course Code: CHS623	**Course Title: Fundamental of Analytical Chemistry**	**Semester : III**
Day : Saturday **Date: 26.12.2020**	**End Semester Examination**	**Time:2 Hrs.** **Max Marks:50**

Instructions: 1) All Questions are compulsory.
2) Use of scientific calculator is allowed

		Marks	Bloom's Level	CO
Q.1	**Answer the following (any Two)**–			
a)	Explain the theories involved in the change of color of acid-base indicators with change in pH.	8	L1	CO1
b)	Illustrate the steps involved in the formation of precipitate in gravimetric analysis.	8	L2	CO2
c)	With the suitable example, explain the cation exchange resin and its type	8	L2	CO3
Q.2	**Answer the following (any two) –**			
a)	Give an accounts to mechanism of ion exchange with the help of ion exchange theories.	8	L3	CO3
b)	Discuss the techniques involved in ion exchange separation.	8	L3	CO2
c)	State the rate of disintegration law with correct equationand half life equation	8	L4	CO5
Q.3	**Answer the following (any two) –**			
a)	Explain the application of SFC and extraction chromatography	9	L2	CO1
b)	Write the principle, sketch the diagram for Supercritical fluid chromatography and explain the working of each components.	9	L1	CO2
c)	Sketch the diagrams and explain the principles of proportional and scintillation counter.	9	L3	CO4

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