No.	:	
	No.	No. :

Total No. of Questions: 11

[ Total No. of Printed Pages : 3

## CHEMSEM-104

## M.Sc. (Ist Semester) Examination Dec., 2022 CHEMISTRY

Paper - CC-4

(Analytical Chemistry-I)

Time: 3 Hours [ Maximum Marks: 40

Section-A (Marks :  $1 \times 10 = 10$ )

Note: Answer all ten questions (Answer limit 50 words). Each question carries 1 mark.

Section–B (Marks :  $3 \times 5 = 15$ )

Note: Answer all five questions. Each question has internal choice (Answer limit200 words). Each question carries 3 marks.

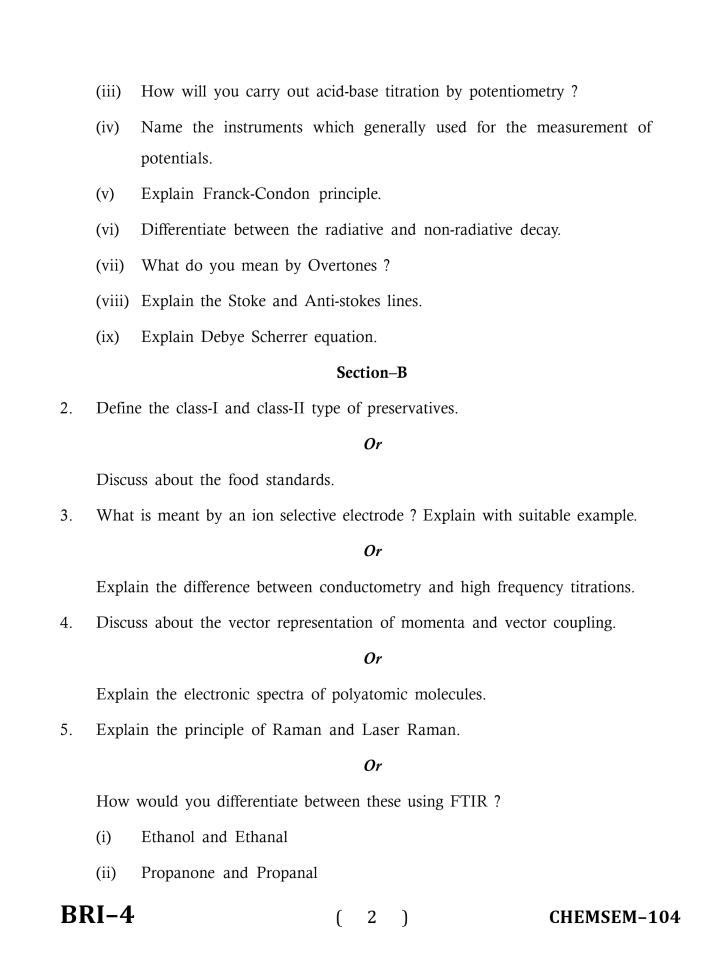
Section–C (Marks :  $5 \times 3 = 15$ )

**Note**: Answer any *three* questions out of five (Answer limit **500** words). Each question carries **5** marks.

## Section-A

- 1. (i) What is meant by Antimicrobial Agents?
  - (ii) Define PFA Act.

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6. Write short note on Miller Indices.

Or

Explain Ramchandran diagram.

## Section-C

- 7. What is meant by drug? Discuss about the various protocols utilised for the analysis of standard drugs.
- 8. What is meant by Conductometry? Explain the low and high frequency titrations.
- 9. Write short notes on the following:
  - (i) Atomic spectra of alkali metal atoms
  - (ii) Energy levels and molecular orbitals
- 10. Discus the basic principles of FTIR and UV-vis spectroscopy and mention the application of FTIR and UV-vis spectroscopy.
- 11. Write short notes on the following:
  - Laue method (i)
  - Absolute configuration of molecules (ii)