2019

B.Sc.

4th Semester Examination

CHEMISTRY (Honours)

Paper - GE4P

[Practical]

Full Marks : 20 Time : 3 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Section - A

1. Perform one experiment (To be settled by lot) 8

   (a) Determine the strength of a HCl solution by titrating against a standard NaOH solution conductometrically.

   (b) Determine the strength of an acetic acid solution by titrating against a standard NaOH solution conductometrically.

(c) Determine the strength of a acetic acid solution by titrating against a standard NaOH solution potentiometrically.

(d) Determine the strength of the supplied Mohr's salt solution by titrating against a standard $K_2Cr_2O_7$ solution potentiometrically.

(e) Determine the critical solution temperature (CST) of phenol-water system and mass per cent of phenol at this temperature.

Total marks of 8 are divided among the following :

Theory	:	1
Experiment	:	3
Reporting data + Graph (if any)	:	3
Result	:	1

Section - B

2. Perform one experiment (To be settled by lot) 7

(a) Determine the total hardness of water by EDTA titration.

(b) Find out the pH of an unknown solution by comparing colour of a series of HCl solutions + 1 drop methyl orange, and a similar series of NaOH solutions + 1 drop phenolphthalein.

(c) Determine the rate constant for the acid catalysed hydrolysis of an ester.

Total marks of 7 are divided among the following :

Theory	:	1
Reporting data + Graph (if any)	:	3
Calculation	:	2
Result	:	1

3. Laboratory Note Book 2

4. Viva-voce 3
