

**2018**

**CBCS**

**3rd Semester**

**CHEMISTRY**

**PAPER—C5P**

**(Honours)**

**(Practical)**

*Full Marks : 20*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Physical Chemistry-II Lab.**

1. Perform one experiment from the following list of experiments allotted through a single draw Lottery. 15

(a) Determine coefficient of viscosity of the supplied liquid with respect to water by using Ostwald viscometer.

*(Turn Over)*



- (b) Determine partition coefficient for the distribution of  $I_2$  between water and the supplied organic solvent (perform the experiment in one set).
- (c) Determine the exact concentration of supplied solution (approx  $\frac{N}{10}$ ) of a diacid by titrating the solution conductometrically against standard NaOH solution.
- (d) Determine the exact concentration of supplied solution (approx  $\frac{N}{10}$ ) of a strong monobasic acid by titrating the solution conductometrically against Standard NaOH solution.
- (e) Determine the exact concentration of supplied solution (approx  $\frac{N}{10}$ ) of a weak monobasic acid by titrating the solution conductometrically against standard NaOH solution.
- (f) Determine the rate constant of saponification reaction conductometrically.
- (g) Determine the ionization constant of a weak monoprotic acid using Ostwald dilution law.

In each experiment, marks are distributed among the following : Theory, Temperature recording, Representation of data in Tabular form, calculation, graph plotting (if necessary) and Result.

<b>2. Laboratory Note Book</b>	<b>2</b>
<b>3. Viva-Voce</b>	<b>3</b>