2019

Part – II

CHEMISTRY

(Honours)

Paper – V(C)

(Physical Chemistry)

(Practical)

Full Marks – 50

Time : 6 Hours

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

1. Perform one physical chemistry experiment from the following list of experiments allotted through a single draw lottery. 40

   (a) Determine surface tension of the given solution by drop counting method and hence determine its concentration.

   (b) Determine coefficient of viscosity of the given solution by using ostwald, viscometer and hence determine its concentration.

(c) Determine partition coefficient of I_2 between water and the supplied organic solvent.

(d) Determine pH of the given buffer solution by colour matching method.

(e) Determine the ratio of rate constant of the decomposition of H_2O_2 using two supplied $FeCl_3$ solution of different concentration.

In each experiment marks are distributed into the following items : Theory, Temperature recording, Representation of data and Tabulaion, Calculation, Graph plotting (if necessary) and Result.

2. Laboratory Note Book. 5

3. Viva-Voce. 5