2017

CHEMISTRY

[Honours]

(CBCS)

(Practical)

PAPER – C2P

Full Marks : 20

Time : 2 hours

Answer any one question from Q.No. 1 to Q.No.4 through lottery

The figures in the right hand margin indicate marks

1. Study the kinetics of decomposition of H_2O_2 in presence of one $FeCl_3$ solution and find out rate constant. Marks are distributed among the following working formula/Principle, Representation of data in tabular form, graph plot and results. 15

2. Prepare a set of buffer solutions and hence to find out the pH of the unknown buffer solution by colour matching method.
Marks are distributed among the following :

Working formula/Principle, Representation of data in tabular form and Result. 15

3. Study of the kinetic of hydrolysis of methyl acetate in presence of an acid catalyst and find out the rate constant.
Marks are distributed among the following :

Working formula/principle, representation of data in tabular form, Graph Plot, Result. 15

4. Determine the head of neutralization of a strong acid by strong base.
Marks are distributed among the following :

Working formula/principle, representation of data in tabular form, Graph Plot, Result. 15

5. Laboratory Note Book. 2

6. Viva-voce. 3

Instructions to the Examiners]

1. Examiners are requested to set at least four experiments in the centre and distribute one experiment to each student through lottery.

2. Examiners are requested to prepare and supply 40 ml 1% $FeCl_3$ solution and 200 ml 1 Vol H_2O_2.

3. Examiners are requested to prepare three different unknown Buffer solution for pH experiment.

4. Examiners are requested to note down the name or number of experiment (for p^H) on the front page of answer script as well as in the distribution record.

5. Digital Balance (3 digit/Accuracy 1mg) must be supplied.

6. Supply 100 ml $\left(\frac{N}{2}\right)$ HCl solution and $\left(\frac{N}{20}\right)$ NaOH solution for kinetic study of hydrolysis of methyl acetate experiment.

7. Marks are distributed in four experiment as follows :

   Principle/working formula – 3
   Representation of data in tabular form – 7
   Graph plotting – 3
   Results – 2

   For pH experiment (Principle–3, Representation of data in tabular form – 7, Results – 5).

8. Before starting his/her experiment, an examinee must write the working formula/principle of his/her alloted experiment in the answer script and examiners are requested to put their signatures at the end of the principle working formula. Written by the examinee.