Mahishadal Raj College

B.Sc Generic Elective Internal
Examination 2020 (under CBCS pattern)
Semester -II
Subject: Chemistry
Paper: **GE2T + GE2P**

Full marks: 20 (T)+10 (P) Time: 2h

Answer any **one question** from each part

Part–A: GE2T (Theory)

1. Write down the formula of Maxwell's distribution of molecular speed and kinetic energy. Draw the plots of Maxwell speed of distribution at two different temperatures and explain it.
2. Define mean free path. Derive the expression of total number of bimolecular collisions per unit volume per unit in a gas.
3. Write down the definition of viscosity and viscosity coefficient of a gas. Explain the effect of temperature on viscosity coefficient of a gas.
4. Write down the difference between order and molecularity. Derive the expression of first order reaction.
5. What is pseudo first order reactions and give two examples. Derive the half life of second order reaction.

Part-B: GE2-P (Practical)

1. Write the theory on the determination of the surface tension of a liquid or a dilute solution using a Stalagmometer and also write the objective of the experiment.
2. Write the theory on the determination of the relative and absolute viscosity of a liquid or dilute solution using an Ostwald's viscometer and also write the objective of the experiment.
3. Write the theory on the compare the strengths of HCl and H_2SO_4 by studying kinetics of hydrolysis of methyl acetate and also write the objective of the experiment.

send answer paper to this mail id ge2general@gmail.com