CHEMISTRY Honors Practical Examination' 2021
Gurudas College Centre
Semester-1
Paper- CC-1-2P

FM-30   Time: 2hr

Physical Chemistry
(Marks: 20)

A. Answer any **five** questions

1. Give an example of homogeneous catalysis.
2. What is meant by 'Time of half discharge'?
3. Will you measure temperature in kinetic experiment? Why?
4. Why dry filtration is required for determining solubility of KHTa solution?
5. In clock reaction, why excess of thio sulfate solution is added during the kinetics?
6. 1(N) KHTa solution=…….(M) KHTa solution; why?
7. Write down the name and formula of a sparingly soluble salt other than KHTa.

1x5

B. Answer any **six** questions

1. How measurement of V_0 in ester hydrolysis is taken care of?
2. In the actual reaction of H_2O_2 decomposition, there is no influence of sodium thio sulfate. But the entire calculation is done in terms of volume of thio sulfate –Explain.
3. Give reasons why the aliquot of the reaction mixture in the kinetics of acid catalyzed ester hydrolysis is given in cold distilled water.
4. Explain the order of the kinetics of acid catalyzed ester hydrolysis.
5. In the plot of $\log(V_0 / (V_0 - V_t))$ against time for H_2O_2 decomposition, the slope is 0.0056 sec^{-1}. Find the rate constant in min^{-1} unit.
6. What is pseudo-first order reaction? Why it is called pseudo?
7. In acid catalyzed hydrolysis of an ester if we increase the concentration of acid what will happen? Explain.
8. 'Decomposition of H_2O_2 by acidified KI solution is known as clock reaction'. Why?

2x6

C. Upload the index page of your Physical Practical laboratory note book.

ORGANIC CHEMISTRY (IB)
(Marks: 10)

1. Draw a neat diagram of boiling point apparatus and explain the boiling point determination procedure.   2+2

2. Suggest which among the following pairs would have a higher boiling point? Explain why.

(a) Benzaldehyde and acetophenone.

(b) Acetylacetone and ethyl methyl ketone.   3+3