U.G. 3rd Semester Examination - 2021

CHEMISTRY

[HONOURS]

Generic Elective Course (GE)

Course Code : CHEM-H-GE-P-1

[PRACTICAL]

Full Marks : 20   Time : 2 Hours

The figures in the right-hand margin indicate marks.

1. Answer any **five** questions: $2\times5=10$

    a) Write down the basic theory for the estimation of sodium carbonate and sodium hydrogen carbonate present in a mixture.

    b) What do you mean by 'end point' of a titration? Give an example of acid-base indicator.

    c) Write down all the reactions involved for the estimation of Fe (II) ions by titrating with $K_2Cr_2O_7$.

    d) What is iodometry?

    e) Calculate the amount of oxalic acid required for the preparation of 250 mL 0.05(N) primary standard solution.

[Turn over]

f) Why is $KMnO_4$ not used as a primary standard solution? What is the formula of Mohr's salt?

g) What indicator used for the estimation of Cu(II) ions Iodometrically? What do you mean by secondary standard solution?

2. Answer any **five** questions: $2\times5=10$

    a) Write a short note on Lassaigne's test.

    b) Write down the reactions involved for the estimation of Cl as special element in an organic compound.

    c) Write down the formula of sodium nitroprusside. Where it is used?

    d) Write down the confirmation test for the estimation of Aromatic-NH_2 group.

    e) Write down the reactions involved for the estimation of -COOH group.

    f) Write down the confirmation test for the estimation of phenolic-OH group.

    g) How can you prove that carbonyl group present in an organic compound?

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