2021

CHEMISTRY — HONOURS — PRACTICAL

Paper: CC-7P

(Organic Chemistry)

Full Marks: 30

The figures in the margin indicate full marks.

1. You are provided with an unknown concentration of aniline (x gL^{-1}). Calculate the concentration of supplied aniline by Bromate-Bromide method in gL^{-1}.

Given data:

(i) Strength of standard $KBrO_3$-KBr solution = 0.0508 (N)

(ii) Volume of $Na_2S_2O_3$ solution required for standardisation against 0.0508 (N) $KBrO_3$-KBr solution = 26.2 mL

(iii) Volume of standardised $Na_2S_2O_3$ solution required for titration of excess bromine in aniline soln. = 24.8 mL.

(a) Write down the principle of estimation of aniline by bromination method and mention the working formula. 10

(b) Show the given data in tabular form for standardisation of $Na_2S_2O_3$ solution by standard $KBrO_3$-KBr solution. 5

(c) Show the given data in tabular form for titration of excess bromine in aniline soln. with standard $Na_2S_2O_3$ soln. 5

(d) Calculation of unknown concentration of aniline in gL^{-1}. 10
