

2018

CBCS

3rd Semester

CHEMISTRY

PAPER—C6P

(Honours)

(Practical)

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Inorganic Chemistry-II Lab.

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| 1. Estimate the total amount of Iron in the supplied portland cement. | 15 |
| 2. Laboratory Note Book | 2 |
| 3. Viva-Voce. | 3 |

Procedure

1. (a) Preparation of 250 ml standard $\left(\frac{N}{20}\right) K_2Cr_2O_7$ solution :

Weight out accurately 0.6125 gm of $K_2Cr_2O_7$ (AR grade) and dissolve it by distilled water in a 250 ml volumetric flask.

- (b) Estimation of Fe_2O_3 in Portland Cement:

Transfer the supplied Cement Sample quantitatively into a 500 ml beaker and dissolve it in 50 ml (1:1) HCl. Then heat the solution with stirring by glass rod for 15 minutes. Add additional 25 ml (1:1) HCl and reduce iron by slow addition of Al-foil at near to boiling condition. Cool the solution and dilute to 150 ml by distilled water. Add 5 ml of syrupy H_3PO_4 followed by 3-4 drops BaDs indicator. Then titrate it with a standards and $\left(\frac{N}{20}\right) K_2Cr_2O_7$ Solution until first red-violet colour appears. Note the titre value to calculate the amount of Fe_2O_3 in supplied portland cement sample.