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( July )

CHEMISTRY

( Elective/Honours )

( Physical LC—I )

( Chem-EH-201 )

( Practical )

Marks : 19

Time : 6 hours

**Instructions to Examiners**

1. Any *one* of the following experiments may be allotted to each candidate on the basis of lottery : 12

- (a) Determination of the heat of neutralization of a strong acid by a strong base
- (b) Determination of the molecular weight by Rast's method

- (c) Study of the heat of dilution of  $\text{H}_2\text{SO}_4$  and then to determine the strength of an unknown acid
- (d) Determination of the velocity constant of the decomposition of hydrogen peroxide in presence of ferric chloride as catalyst by titrating against  $\text{KMnO}_4$
- (e) Determination of the solubility of  $\text{BaCl}_2$  /  $\text{NaCl}$  at two different temperatures and to determine the heat of solution
- (f) Determination of the velocity constant of the hydrolysis of methyl acetate catalyzed by an acid

*Distribution of Marks :*

- |   |    |
|---|----|
| (i) Correct theory and formula(e)   | 3  |
| (ii) Correct procedure  | 1½ |
| (iii) Completion of the experiment  | 1½ |
| (iv) Systematic recordings, tabulations, graphs (if any) and calculations | 5  |
| (v) Results   | 1  |

**( 3 )**

**2.** Viva voce : 5

Question related to the given experiment should be asked.

**3.** Laboratory record : 2

Regularity in attendance, systematic recording and submission of laboratory records should be emphasized.

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