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(July)

CHEMISTRY

(Elective/Honours)

(**Physical—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 : 10

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

- (c) Study of the heat of dilution of H_2SO_4 of different concentrations and then to determine the strength of the supplied H_2SO_4 solution
- (d) Determination of the velocity constant of the decomposition of H_2O_2 in the presence of FeCl_3 as catalyst by titrating against KMnO_4 solution
- (e) Determination of the solubility of a salt (BaCl_2 / 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

The candidates should be asked to write the theory with the working formula(e) and brief procedure of the allotted experiment within the first 30 minutes before performing the experiment which should be checked and signed by the examiner. If the theory and procedure are written wrongly, the correct theory and procedure should be supplied and marks be deducted accordingly.

(3)

Distribution of Marks :

Correct theory and formula(e)	2
Correct procedure	1½
Completion of the experiment	1½
Systematic recordings, tabulations, graphs (if any) and calculations	4
Results	1
Total	<hr/> 10

2. Viva voce : 5

Questions related to the given experiment should be asked.

3. Laboratory record : 4

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

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