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Code No. 1130 / CBCS

# FACULTY OF PHARMACY

B. Pharmacy III-Semester (CBCS) (Main) Examination, January 2018

Subject : Pharmaceutical Analysis –I (Chemical Analysis)

Time: 3 Hours

Max. Marks: 70

Note: Answer all questions. All Questions carry equal marks.

1 a) i) What are Primary and Secondary Standard? Write Ideal Properties of Primary Standard. 6

ii) Define following terms: 8

a) Significant figures b) Equivalence point c) Indicator d) Linearity

OR

b) i) Define concept of error. Explain about various sources of errors and their rectification. 10

ii) Define following terms

(a) Sensibility (b) Standard deviation 4

2 a) i) Discuss law of mass action and its significance. 6

ii) Solubility of AgCl is 0.0015 g $dm^3$. Calculate solubility product. 4

iii) Calculate $P^H$ of 0.05 M solution of Sodium Acetate (dissociation constant of acetic acid is 1.8 x 10 5 ). 4

OR

b) i) Derive equations to calculate the $P^H$ value of aqueous solution of salts obtained from weak acid and strong base. 10

ii) How do you prepare and standardize 0.1M NaoH? 4

3 a) i) Discuss briefly conditions to be observed during precipitation in gravimetric analysis? 6

ii) What is Oxidation- reduction Potential ? How it is determined in red-ox system? 8

OR

b) i) Write a note on adsorptive Indictors. 4

ii) Write a note on red-ox indicators. 5

iii) How do you prepare and standardize 0.1M Sodium thiosulphate? 5

4 a) i) Explain about various methods of complexometric titrations. 8

ii) Write a note on adsorbents used in gas analysis. 6

OR

b) i) Write Principle, procedure apparatus used in Assay of Nitrous Oxide. 6

ii) How do you prepare & Standardize following solution? 8

(i) 0.1M E DTA (ii) 0. 1 M Sodium Thiosulphate.

5 a) i) How will you balance following equation by applying ion-electron method? 8

$FeCl_3 + SnCl_2 \rightarrow FeCl_2 + SnCl_4$

ii) Calculate volume of water required to prepare 15% phosphoric and from 80% Phosphoric acid. 6

OR

b) i) Define terms molarity & Normality. How do you prepare 1000 ml each of 0.1N NaoH, 0.1$NH_2S04$, 0. $NI_2$ and 0.1 N HCl. (2+3+3+3+3)

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