

FACULTY**B. Pharmacy 2/4 I Semester (Non CBCS) (Backlo) Examination, November 2018****Subject : Pharmaceuticals Analysis – I (Chemical Analysis)****Time : 3 Hrs****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) (i) Define the followin:
(A) Accuracy (B) Precisions (C) standard deviation (6)
(ii) What are sinificant fiures? Write the rules for computation. (8)
- OR**
- (b) (i) Define the followin: (4)
(A) Normality (B) Molarity (C) Molality (D) Detection limit
(ii) Describe the procedure for calibration of pipettes and burettes (10)
- 2 (a) (i) Explain the neutralization titration curve for the reaction between stron acid and stron base. Comment on the indicators used. (10)
(ii) Write the derivation of Handerson Hesselbach equation used for the determination of pH. (4)
- OR**
- (b) (i) Explain the followin: (6)
(A) Law of mass action (B) Ionic product of water
(ii) Write a brief note on hydrolysis of salts. (8)
- 3 (a) (i) Discuss the varis method s used in determination of end point in precipitation titration. (8)
(ii) Write a note on oranic precipitants. (6)
- OR**
- (b) (i) Discuss the varis types of redox titrations ivin suitable examples. Write reaction equations wherever necessary. (10)
(ii) Write the factors affectin the precipitation titrations. (4)
- 4 (a) (i) Discuss the principle and theory of complexotmetric titration. Write a note on metal ion indicators. (4+4)
(ii) Write the procedure for the preparation and standardization of 0.1 N perchloric acid. (6)
- OR**
- (b) (i) Discuss the principle and procedure involved in arentometry. (10)
(ii) Explain the principle of non aques titrations. (4)
- 5 (a) (i) Define the terms limitin reactant, theoretical yield and percentae yield. (6)
(ii) Balance the followin equations. (4)
(A) $\text{BaCl}_2 + \text{NaOH} \rightarrow \text{Ba(OH)}_2 + \text{NaCl}$
(B) $\text{H}_2\text{SO}_4 + \text{FeCl}_3 \rightarrow \text{Fe (SO}_4)_3 + \text{HCl}$
(iii) Calculate the number of moles in each of the followin: (4)
(A) 7.9 m of calcium (B) 65.5 m of carbon
- OR**
- (b) (i) Write mass balance expressions for the system formed when a 0.010 M NH_3 solution is saturated with slightly soluble ABr. (8)
(ii) Find the percent composition of element calcium in calcium hydroxide. (6)
