

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 3- EXAMINATION –WINTER - 2018

Subject Code:230004**Date: 12/12/2018****Subject Name: Pharmaceutical Analysis - I****Time:10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

- 1. Attempt any five questions.**
- 2. Make Suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) What is analytical method validation? Enlist validation parameter. Discuss any two parameters in detail. **06**
- (b) Define hydrolysis and Derive equation for finding pH of aqueous solution of salt of strong acid and weak base. **05**
- (c) Describe sampling techniques. **05**
- Q.2** (a) What is error? Write types of errors and how they minimized. **06**
- (b) Differentiate between QA and QC. **05**
- (c) Give a detailed account of Oxygen combustion flask method. **05**
- Q.3** (a) Explain the terms: (i) Co-precipitation (ii) Post precipitation (iii) Solubility product **06**
- (b) Discuss in detail about Diazotization nitrite titration. **05**
- (c) Write a note on Karl-Fischer titration. **05**
- Q.4** (a) Write a short note on Common ion effect and ionic product of water. **06**
- (b) Write a note on pM indicators. **05**
- (c) What is gravimetric analysis? Enlist the steps involved in gravimetric analysis. **05**
- Q.5** (a) Explain redox indicators in detail. **06**
- (b) What is buffer? Derive Henderson-Hasselbach equation. **05**
- (c) Explain Kjeldahl method for determination of nitrogen. **05**
- Q. 6** (a) Write a brief note on types of non aqueous solvents and leveling and differentiating effect of solvent. **06**
- (b) Give the difference between followings with suitable example **05**
- (1) Iodometric titration and Iodimetric titration
- (2) Masking agent and Demasking agent
- (c) Explain law of mass action. **05**
- Q.7** (a) Comments: (1) Nitrobenzene is used in Volhard's method **06**
- (2) KMnO_4 is not a primary standard compound.
- (3) Electrolyte solution is used for wash precipitate.
- (b) Write explanatory note on: Continuous extraction. **05**
- (c) Discuss in detail about Fajan's method. **05**
