

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharmacy - SEMESTER- III EXAMINATION – WINTER 2016

Subject Code: 230001**Date: 17/11/2016****Subject Name: Physical Pharmaceutics II****Time: 2:30 PM to 5:30 PM****Total Marks: 80****Instructions:**

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

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| Q.1 | (a) | State Raoult's law. Explain in details about positive and negative deviations from Raoult's law. | 06 |
| | (b) | Write applications of protein binding. | 05 |
| | (c) | Write Pharmaceutical applications of polymers | 05 |
| Q.2 | (a) | Classify organic molecular complexes. Describe drug and caffeine Complexes. | 06 |
| | (b) | Describe the type-I dissolution apparatus with labeled diagram | 05 |
| | (c) | What are the limitations of accelerated stability studies? | 05 |
| Q.3 | (a) | Explain Noyes-Whitney's equation for the rate of dissolution | 06 |
| | (b) | Describe the Beckmann method to determine freezing point lowering | 05 |
| | (c) | Explain kinetic of protein binding. | 05 |
| Q.4 | (a) | Explain in brief 'First-Order' and pseudo first order reactions. | 06 |
| | (b) | Describe Ostwald-Walker method of measuring the relative lowering of vapour pressure. | 05 |
| | (c) | Write short note on "chelates". | 05 |
| Q.5 | (a) | State and explain Fick's second law of diffusion. Write its Applications | 06 |
| | (b) | Explain : Electrolytes, Coulomb, Ampere, Ohm, Volt | 05 |
| | (c) | Explain methods for determination of protein binding. | 05 |
| Q.6 | (a) | Enumerate the factors affecting the reaction rates and discuss the influence of temperature in brief | 06 |
| | (b) | Describe the method for studying in vitro drug diffusion. | 05 |
| | (c) | Explain in brief, (1)The L value (2) Osmolality | 05 |
| Q.7 | (a) | Discuss Steady-State Diffusion. | 06 |
| | (b) | Discuss in brief properties of solutions of electrolytes | 05 |
| | (c) | Discuss Dissolution and Disintegration of drug from solid dosage forms | 05 |
