

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 7- EXAMINATION – WINTER - 2018

Subject Code: 2270016**Date: 28/11/2018****Subject Name: Innovations in Conventional Drug Delivery System****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) Write disadvantages of hard gelatine capsule shell. Enlist recent innovations in capsule shell, describe any one in detail. 06
- (b) Define matrix Tablets. Explain factors influencing drug release from Matrix tablet. 05
- (c) Write a detail note on non-animal capsule shells. 05
- Q.2 (a) Discuss the principle of osmotic drug delivery systems. Classify oral ODDS and write a note on push pull pumps. 06
- (b) Write a detail note on basic components of osmotic drug delivery systems with examples. 05
- (c) Describe Pulsincap Technology. 05
- Q.3 (a) Describe various methods for preparation of nanosuspension. 06
- (b) Write a note on polymers used in preparation of matrix tablet. 05
- (c) Give Advantages, Disadvantages and pharmaceutical applications of pelletization. 05
- Q.4 (a) Write a note on prefilled syringe technology for injection formulations. 06
- (b) Write a note on needle free injection technology. 05
- (c) Explain various approaches used in developing novel ocular drug delivery system. 05
- Q.5 (a) Give the significance of fast dispersible tablet. Enlist techniques used in preparation of fast dispersible tablet and discuss one in detail. 06
- (b) Discuss the merits and demerits of sublingual dosage forms. Write drug selection criteria for sublingual tablet. 05
- (c) Write a note on innovations in powder aerosols drug delivery. 05
- Q. 6 (a) What are ophthalmic inserts? Classify them. Give ideal requirements for ophthalmic inserts. 06
- (b) Discuss various methods for parenteral DEPOT formulations. 05
- (c) Write a note on polymers used in ophthalmic drug delivery systems. 05
- Q.7 (a) What are Hydrogels? Discuss polymers used to prepare hydrogels. Give pharmaceutical applications of hydrogels. 06
- (b) What are SMEDDS? Write a note on materials and method used to prepare SMEDDS. 05
- (c) Enlist types of innovation in dispersed systems. Discuss pharmaceutical applications of nanoemulsion. 05