

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 8- EXAMINATION –WINTER - 2018

Subject Code:2280016**Date: 28/11/2018****Subject Name: Current advances in Novel Drug Delivery Systems****Time:02:30 PM TO 05:30 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) What are liposomes? Discuss thin film hydration method in detail. | 06 |
| | (b) Differentiate Liposomes and Nanoparticles. | 05 |
| | (c) Explain stealth liposomes. | 05 |
| Q.2 | (a) What is multiparticulate drug delivery? Explain techniques of pelletization. | 06 |
| | (b) Enlist methods of preparation of niosomes. Describe any one in detail. | 05 |
| | (c) Differentiate microspheres & microcapsules. Explain double emulsification method. | 05 |
| Q.3 | (a) How Transdermal Systems are tested In-vitro for drug delivery and absorption? | 06 |
| | (b) Discuss factors consideration related to drug & excipients selection in TDDS. | 05 |
| | (c) Discuss design and applications of Iontophoretic drug delivery system. | 05 |
| Q.4 | (a) What is mucoadhesion? What are characterization parameters for it? | 06 |
| | (b) Explain the terms--Films, Patches, Diskette, strips. | 05 |
| | (c) Describe significance of minitablets in oral drug delivery system. | 05 |
| Q.5 | (a) Explain the evaluation techniques of Self Emulsifying Drug Delivery System. | 06 |
| | (b) Explain the selection procedure of excipients in self emulsifying drug delivery systems. | 05 |
| | (c) Describe types of excipients used in preparation of SEDDS. | 05 |
| Q. 6 | (a) Define Insitu gel. Discuss various approaches of insitu gel preparation. | 06 |
| | (b) Explain the Temperature Sensitive In-situ gelation process | 05 |
| | (c) Write a note on Transdermal patch. | 05 |
| Q.7 | (a) Write a note on In-vitro release of Nanoparticle. | 06 |
| | (b) Write a short note on Sonophoresis. | 05 |
| | (c) Classify liposomes based on their structure. Describe merits and demerits of liposomes. | 05 |
