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GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – II • EXAMINATION – SUMMER • 2015

| • | | Code: 2920102 Date: 14-05-2015 | |
|-------|-------------------|--|----------------|
| _ | | Name: Novel Drug Delivery System Part-1 | |
| | | 0:30 am - 01:30 pm Total Marks: 80 | |
| Instr | 1. 2. | Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. | |
| Q.1 | (a) | State the principle of osmotic delivery system with necessary equation and explain the osmotic delivery system for soluble drugs. | 06 |
| | (b) | Give a brief account on basic components of osmotic delivery system giving examples for each component. | 05 |
| | (c) | Discuss Elementary Osmotic Pump and its modified forms. | 05 |
| Q.2 | (a) | What type of drugs is suitable for GRDDS? Mention merits and demerits of GRDDS. | 06 |
| | (b) | Give a brief account on dissolution apparatus and modifications made so far to evaluate floating drug delivery systems. | 05 |
| | (c) | Enumerate on Non Effervescent type of Single and Multiple floating GRDDS. | 05 |
| Q.3 | (a) | Explain the permeability of drugs through buccal mucosa. What are the methods to increase drug delivery via buccal route? | 06 |
| | (b) (c) | Discuss the methods to determine mucoadhesion property of formulation. Explain the significance of sublingual drug delivery system. How they are evaluated? | 05 05 |
| Q.4 | (a) | Write suitability of Insulin for colonic delivery and adopt required approaches to deliver via colon. | 06 |
| | (b) (c) | Write short notes on Pulsincap technology. How to evaluate colonic dosage forms? | 05 05 |
| Q.5 | (a) (b) (c) | Discuss the influence of excipients in the formulation of GRDDS. Explain in vivo evaluation methods of GRDDS. Detail out the release kinetics and the equations to determine the mechanisms of drug release from the modified release dosage forms. | 06 05 05 |
| Q. 6 | (a) | Define Pharmaceutical package. Enlist the criteria for selection of package type and packaging material. Classify the packaging material. | 06 |
| | (b) (c) | Describe different methods of taste masking. Write applications of particle coating. | 05 05 |
| Q.7 | (a) | Enumerate dissolution controlled, adsorption, encapsulation and esterification types of DEPOT parenteral formulations. | 06 |
| | (b) (c) | Give a detail account on Long acting Penicillin formulation. Discuss Gels as novel semi solid delivery system. | 05 05 |
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