

Code No: B4203

**R10****SET - 1****IV B. Pharmacy II Semester Supplementary Examinations, April - 2018**  
**CONTROLLED RELEASE & NOVEL DRUG DELIVERY SYSTEMS**

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks

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1. a) Give the differences between dissolution controlled and diffusion controlled systems (7M)  
and how the release mechanism is established.
- b) Explain the design of oral controlled drug delivery system using ion exchange resins (8M)  
with suitable example. Mention their advantages and limitations.
2. a) Write about excipients used in the formulation of transdermal drug delivery systems (8M)  
with suitable examples.
- b) Explain the peel adhesion and folding endurance tests for transdermal drug delivery (7M)  
systems. Mention the significance of these tests.
3. a) Explain the theories of mucoadhesive delivery system. (8M)
- b) Discuss about polymers suitable for formulation of mucoadhesive drug delivery (7M)  
systems.
4. a) Mention the need for drug targeting and explain the types of targeting. (7M)
- b) Write about the preparation methods for resealed erythrocytes. (8M)
5. a) Write about the functions of CDSCO. (9M)
- b) Give the differences between NDA and ANDA with suitable examples. (6M)
6. a) Explain the quality norms to be followed in the organization of ware house. (8M)
- b) Explain the methods for quality assurance of packaging material. (7M)
7. Write about GMP regulations as per Drugs and Cosmetics Act. (15M)
8. a) Define validation and explain process validation. (9M)
- b) Explain in detail about clearing validation. (6M)