

**MASTER OF PHARMACY FIRST SEMESTER EXAMINATION, 2017**

**Pharmaceutics –I**

Time: three hours

Full Marks 100

Answer any *five* questions taking at least one from each group.

**GROUP – A**

1. i) Write down the definition, optimization, mechanism of action & pharmaceutical applications of Iontophoresis. (20)
2. i) How ultrasonic wave may influence the drug permeation through skin?  
ii) How can you optimize this technique?  
iii) Briefly mention at least 5 applications of Sonophoresis (20)
3. Briefly discuss any four of the following:
  - i) Air handling in aseptic pharmaceutical unit.
  - ii) Controlling of release rate from solution type indictable.
  - iii) Vapour Pressure Powered Pumps.
  - iv) Properties of an ideal implantable parenteral system.
  - v) Advantages & disadvantages of gastrointestinal muco-adhesion.

**M. PHARM 1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER EXAMINATION, 2017**

**SUBJECT: PHARMACEUTICS I  
GROUP - B**

- 4. (a)** Elaborate the merits and limitation of drug administration through nasal route. **10**
- (b)** Discuss the factors that influence the absorption of drugs across the nasal epithelium. **5**
- (c)** Describe the composition of nasal secretions. **5**
- 5. (a)** With a neat sketch elaborate the mechanism of nasal drug delivery. **10**
- (b)** Write a note on the delivery aspects of nasal administration. Explain any three delivery systems **4+6**
- 6. (a)** "Though delivery of drugs by the vaginal route is well understood, yet it is still limited". Explain. **10**
- (b)** Write short notes on
- i. Microparticulate systems
- ii. Vaginal delivery of peptides and proteins. **5x2**