B.Pharm. CBCS Pattern Semester-VII

BP704T - Novel Drug Delivery System

P. Pages : 2 **GUG/W/23/14146**

Time : Three Hours Max. Marks : 75

Notes : 1. All questions are compulsory.
2. Illustrate your answers wherever necessary with the help of neat sketches.

1. Multiple choice questions. **20x1 =20**

i) Controlled release formulations release the drug at ----------.
a) Predetermined rate b) Predictable rate
c) Both a & b d) None

ii) By Noyes Whitney equation, rate of drug dissolution --------- with increase in thickness of dissolution layer.
a) Increases b) Decreases
c) Equalizes d) Remain constant

iii) Polymers used in preparation of contact lenses are ----------.
a) Polyvinyl b) Polyurethanes
c) Polymethacrylate d) Cellulose

iv) Topical polymers are generally prepared by ---------- processes.
a) Inorganic b) Organic
c) Both a & b d) None

v) Chemical Enhancer used in the TDDS is.
a) Oleic acid b) Polyethylene glycol
c) Ethanol d) All of the above

vi) Adhesive property of Transdermal patch is determined by ----------.
a) Peel adhesion test b) Rolling ball tack test
c) Probe tack test d) Flatness test

vii) Microballoon is the ---------- type of GRDDS.
a) Floating system b) High density system
c) Mucoadhesive system d) None of the above

viii) Pulmonary route of drug delivery is preferred due to.
a) First pass metabolism b) Systemic effect
c) Local effect in the lungs d) All of the above

ix) Nebulizers are of following types ----------.
a) Breath activated b) Breath enhanced
c) Both a & b d) None of the above

x) To perform solvent evaporation method of microencapsulation, polymer and drug must be soluble in.
a) Aqueous solvent b) Organic solvent
c) Both a & b d) None

xi) The blood flow rate in oral mucosa is ----------.
a) 10-20 ml/min b) 50-100ml/min
c) 20-30 ml/min d) Irregular

xii) Nebulizers are of following types ----------.
- a) Breath activated
- b) Breath enhanced
- c) Both a & b
- d) None of the above

xiii) Diffusion mediated drug release is the feature of -------- implants.
- a) Passive
- b) Active
- c) Electromechanical
- d) None of these

xiv) Pulmonary route of drug delivery is preferred due to.
- a) First pass metabolism
- b) Systemic effect
- c) Local effect in the lungs
- d) All of the above

xv) Which of the following is targeted drug delivery system?
- a) Niosomes
- b) Liposomes
- c) Nanoparticles
- d) All of the above

xvi) Components of targeted drug delivery system are.
- a) Drug carrier
- b) Target
- c) Drug delivery vehicle
- d) All of the above

xvii) The drug release from osmotic ocuserts is controlled by ----------.
- a) Diffusion
- b) Dissolution
- c) Osmosis
- d) Erosion

xviii) Use of dendrimers in ocular DDS increases ----------.
- a) Residence time
- b) Solubility of drug
- c) Permeability of drug
- d) Diffusion of drug

xix) Intrauterine DDS is used for ----------.
- a) Contraception
- b) Prevention from STIs
- c) Ectopic pregnancy
- d) None of the above

xx) Which is not the intrauterine DDS?
- a) Copper T
- b) Contraceptive implants
- c) Contraceptive patch
- d) B & C

2. Solve **any two.** **10x2 =20**

a) Write in detail physical approaches of controlled release formulation.

b) Explain the approaches used in development of gastroretentive drug delivery system.

c) Write the composition, classification, advantages & disadvantages of liposomes.

3. Solve **any seven.** **5x7 =35**

a) Explain the basic components of TDDS.

b) Give the factors affecting nasal absorption & explain physiochemical factor.

c) Give the formulation approaches of pulmonary delivery system. Explain Aerosol & Nebulizer.

d) Write advantages, disadvantages & application of Nanoparticles.

e) Write a note on novel ocular formulations.

f) Write the types of contact lenses & write the advantages and disadvantages of ocuserts.

g) Give the advantages & disadvantages of IUDs.

h) Give the advantages & disadvantages of implantable DDS.

i) Explain the types of IUDs.

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