PAPER ID-310812

Printed Page: 1 of 1
Subject Code: BP704T

Roll No:

B PHARM
(SEM-VII) THEORY EXAMINATION 2020-21
NOVEL DRUG DELIVERY SYTEM

Time: 3 Hours *Total Marks: 75*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define microparticles.
b.	Define microencapsulation.
c.	Classify GRDDS
d.	Name four methods of microencapsulation along with examples
e.	What are monoclonal anti bodies?
f.	Polymer Matrix Diffusion-Controlled DDS
g.	Define Hydrodynamic pressure activate DDS
h.	Factors considered while development of nasal drug delivery system.
i.	Give Biomedical application of Nasal DDS
j.	Classify polymers.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss implantable drug delivery system with special emphasis on osmotic pump.
b.	Enumerate formulation approaches of TDDS.
c.	Development of IUDs. What are its advantages & disadvantages?

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Define targeted drug delivery system and explain its approaches.
b.	What are intra ocular barriers? Write a note on ocusert.
c.	Discuss metered dose inhalers.
d.	Discuss floating drug delivery system.
e.	Write a note on liposomes, niosomes and nanoparticles
f.	Explain the principles of bioadhesion. Give advantages and disadvantages of mucosal drug delivery system.
g.	Draw a neat labeled diagram of skin. Discuss the factors affecting skin permeation.

Subject Code: BP704T

PAPER ID-411074

Roll No: | | | | | | | | | | | | | |

B PHARM
(SEM VII) THEORY EXAMINATION 2021-22
NOVEL DRUG DELIVERY SYSTEMS (NDDS)

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

a.	State two major physicochemical properties of drugs relevant to controlled release formulations.
b.	Mention the role of polymers in formulation of controlled release drug delivery systems.
c.	State the principles of bioadhesion.
d.	Name the factors affecting transmucosal permeability.
e.	State the working principles of various permeation enhancers.
f.	Define metered dose inhalers.
g.	State the functions of the various structural components of liposomes.
h.	Mention the applications of monoclonal antibodies on targeted drug delivery.
i.	Name the intra ocular barriers to ophthalmic drug delivery.
j.	State the limitations of the use of IUDs.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

a.	Describe the various approaches for designing controlled release formulations with suitable examples.
b.	Describe the working principles and applications of implants and osmotic pump.
c.	Explain the formulation approaches of Transdermal Drug Delivery Systems to overcome the barrier effects of skin.

SECTION C

3. Attempt any *five* parts of the following: 7 x 5 = 35

a.	Classify polymers on functional basis.
b.	Write a brief note on transmucosal permeability and formulation considerations for buccal drug delivery systems.
c.	Describe the formulation approaches for gastro-retentive drug delivery systems.
d.	Explain the various drug targeting approaches.
e.	State and explain the significance and limitations of naso-pulmonary drug delivery systems.
f.	Explain in brief the various methods to overcome ocular barriers for effective drug delivery.
g.	Write a brief note on the development and applications of intra uterine devices (IUDs).

Printed Pages:01 **Sub Code: BP704T**

Paper Id: 231899 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM VII) THEORY EXAMINATION 2022-23
NOVEL DRUG DELIVERY SYSTEM (NDDS)

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

(a) Define the term Microencapsulation and Microcapsules.
(b) Explain the functions of the various structural components of Liposomes.
(c) Mention the applications of Monoclonal antibodies on targeted drug delivery.
(d) Define the term 'permeation enhancers' with examples.
(e) Mention basic components of Transdermal drug delivery systems.
(f) Explain Spray drying/spray congealing method.
(g) Mention the advantages and disadvantages of Buccal drug delivery system.
(h) Define Niosomes and Nanoparticles.
(i) Define Hydrodynamic pressure activate DDS.
(j) Mention different factors affecting transmucosal permeability.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

(a) Explain the Different formulation approaches of Transdermal Drug Delivery Systems.
(b) Discuss implantable drug delivery system and explain in detail osmotic pump.
(c) Describe the various approaches for designing controlled release formulations.

SECTION C

3. Attempt any *five* parts of the following: 5 x 7 = 35

(a) Explain in brief the various methods to overcome ocular barriers for effective drug delivery.
(b) Discuss the Development and applications of IUDs in pharmaceutical drug delivery.
(c) Mention the various formulation approaches for gastro-retentive drug delivery systems. Discuss any one method.
(d) Define targeted drug delivery system and explain the various drug targeting approaches.
(e) Discuss briefly Nebulizer and Metered dose Inhalers.
(f) Define and classify polymers and explain applications of polymers.
(g) Explain the significance and limitations of naso-pulmonary drug delivery systems.

Printed Pages:01 **Sub Code: BP704T**

Paper Id: 231899 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM VII) THEORY EXAMINATION 2022-23
NOVEL DRUG DELIVERY SYSTEM (NDDS)

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

(a) Define the term Microencapsulation and Microcapsules.
(b) Explain the functions of the various structural components of Liposomes.
(c) Mention the applications of Monoclonal antibodies on targeted drug delivery.
(d) Define the term 'permeation enhancers' with examples.
(e) Mention basic components of Transdermal drug delivery systems.
(f) Explain Spray drying/spray congealing method.
(g) Mention the advantages anddisadvantages of Buccal drug delivery system.
(h) Define Niosomes and Nanoparticles.
(i) Define Hydrodynamic pressure activate DDS.
(j) Mention different factors affecting transmucosal permeability.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

(a) Explain the Different formulation approaches of Transdermal Drug Delivery Systems.
(b) Discuss implantable drug delivery system and explain in detail osmotic pump.
(c) Describe the various approaches for designing controlled release formulations.

SECTION C

3. Attempt any *five* parts of the following: 5 x 7 = 35

(a) Explain in brief the various methods to overcome ocular barriers for effective drug delivery.
(b) Discuss the Development and applications of IUDs in pharmaceutical drug delivery.
(c) Mention the various formulation approaches for gastro-retentive drug delivery systems. Discuss any one method.
(d) Define targeted drug delivery system and explain the various drug targeting approaches.
(e) Discuss briefly Nebulizer and Metered dose Inhalers.
(f) Define and classify polymers and explain applications of polymers.
(g) Explain the significance and limitations of naso-pulmonary drug delivery systems.

PAPER ID-311144

Subject Code: BP704T

Roll No:

BPHARM

(SEM VII) THEORY EXAMINATION 2023-24

NOVEL DRUG DELIVERY SYSTEM (NDDS) – THEOR

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Name four methods of microencapsulation along with examples.
b.	Mention the applications of monoclonal antibodies on targeted drug delivery.
c.	Define metered dose inhalers.
d.	Mention basic components of Transdermal drug delivery systems.
e.	Mention the advantages and disadvantages of Buccal drug delivery system.
f.	State the functions of the various structural components of liposomes.
g.	Define Niosomes and Nanoparticles.
h.	State the principles of bio-adhesion.
i.	Name the intra-ocular barriers to ophthalmic drug delivery.
j.	Define Hydrodynamic pressure activated DDS.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the development and applications of IUDs in pharmaceutical drug delivery.
b.	Discuss implantable drug delivery systems with special emphasis on osmotic pump.
c.	Explain the different formulation approaches of Transdermal drug delivery systems.

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

a.	Describe the various approaches for designing controlled release formulations.
b.	Explain in brief the various methods to overcome ocular barriers for effective drug delivery.
c.	Define and classify polymers and explain applications of polymers.
d.	Write a brief note on transmucosal permeability and formulation considerations for buccal drug delivery systems.
e.	Mention the various formulation approaches for gastro-retentive drug delivery systems.
f.	Define targeted drug delivery systems and explain various drug-targeting approaches.
g.	State and explain the significance and limitations of naso-pulmonary drug delivery systems.

PAPER ID-410874

Subject Code: BP704T

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM VII) THEORY EXAMINATION 2023-24

NOVEL DRUG DELIVERY SYSTEM (NDDS) THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define microencapsulation.
b.	Write the advantages of trans mucosal drug delivery system.
c.	Write the principle of inhalers.
d.	Write the principle of nebulizers.
e.	Write the applications of monoclonal antibodies.
f.	Define mucoadhesion.
g.	Define ocuserts.
h.	Define gastro-adhesive system.
i.	Write the principle of osmotic pump.
j.	Write the principle of dissolution.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the Physicochemical and biological properties of drugs relevant to controlled release formulations.
b.	Write the development, advantage and disadvantages of intra-uterine devices (IUDs).
c.	Describe liposomes.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Write the advantages and disadvantages of controlled release drug delivery system.
b.	Write the principle and advantages of microspheres.
c.	Discuss the gastro-adhesive drug delivery system.
d.	Write the concept, advantages and limitations of Niosomes.
e.	Explain the problems associated with ocular drug delivery system.
f.	Discuss the pulmonary route of drug delivery.
g.	Write the basic components of trans drug delivery system.

Subject Code: BP704T

PAPER ID-311144

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BPHARM
(SEM VII) THEORY EXAMINATION 2023-24
NOVEL DRUG DELIVERY SYSTEM (NDDS) – THEOR

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Name four methods of microencapsulation along with examples.
b.	Mention the applications of monoclonal antibodies on targeted drug delivery.
c.	Define metered dose inhalers.
d.	Mention basic components of Transdermal drug delivery systems.
e.	Mention the advantages and disadvantages of Buccal drug delivery system.
f.	State the functions of the various structural components of liposomes.
g.	Define Niosomes and Nanoparticles.
h.	State the principles of bio-adhesion.
i.	Name the intra-ocular barriers to ophthalmic drug delivery.
j.	Define Hydrodynamic pressure activated DDS.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the development and applications of IUDs in pharmaceutical drug delivery.
b.	Discuss implantable drug delivery systems with special emphasis on osmotic pump.
c.	Explain the different formulation approaches of Transdermal drug delivery systems.

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

a.	Describe the various approaches for designing controlled release formulations.
b.	Explain in brief the various methods to overcome ocular barriers for effective drug delivery.
c.	Define and classify polymers and explain applications of polymers.
d.	Write a brief note on transmucosal permeability and formulation considerations for buccal drug delivery systems.
e.	Mention the various formulation approaches for gastro-retentive drug delivery systems.
f.	Define targeted drug delivery systems and explain various drug-targeting approaches.
g.	State and explain the significance and limitations of naso-pulmonary drug delivery. systems.

PAPER ID-310566

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM VII) THEORY EXAMINATION 2024-25

NOVEL DRUG DELIVERY SYSTEM (NDDS) – THEOR

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define GRDDS.
b.	Draw the graph of sustained release.
c.	Give examples of pulmonary drug delivery system.
d.	Write the principle of liposomes.
e.	Draw the structure of nebulizer.
f.	Define implants with example.
g.	Define intraocular barriers.
h.	Define metered dose.
i.	Define buccal delivery.
j.	Write the application of Copper-T.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Write the principle, method of preparation and use of microspheres.
b.	Discuss the physicochemical properties of drugs which are considered for controlled release formulations.
c.	Discuss the principle and pharmaceutical applications of monoclonal antibodies.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Describe the principle, method of preparation and use of ocuserts.
b.	Discuss the advantages and disadvantages of intrauterine devices.
c.	Write the basic components of transdermal drug delivery system.
d.	Explain the principle and pharmaceutical applications of mucoadhesive dosage forms.
e.	Discuss the approaches to design controlled release tablets.
f.	Describe the principle and pharmaceutical applications of osmotic pumps.
g.	Write a note on inhalers.

Paper ID : 250327

Roll No: | | | | | | | | | | | | | |

BPHARMA

(SEM VII) THEORY EXAMINATION 2024-25

NOVEL DRUG DELIVERY SYSTEM (NDDS) – THEOR

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Describe polymer matrix diffusion-controlled DDS.
b.	State the functions of the various structural components of liposomes.
c.	Assess the role of monoclonal antibodies (mAb) in drug targeting.
d.	Write the principle of nebulizers.
e.	Define metered dose inhalers.
f.	Discuss limitations of the use of IUDs.
g.	Summerize the term permeation enhancer in drug delivery.
h.	State the principles of bio-adhesion.
i.	Explain the term ocuserts.
j.	Define core and coat materials with respect to microencapsulation.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Explain the mechanism of drug release from implants, with special emphasis on osmotic pumps, with suitable diagram(s).
b.	Discuss the different formulation approaches of Transdermal Drug Delivery Systems.
c.	Explain the various requirements of drug candidate to be selected for formulation into controlled drug delivery system.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Compare microparticles, microspheres, and microcapsules, with suitable diagrams.
b.	Discuss pulmonary route as a pathway for drug delivery, including its advantages and applications.
c.	Discuss various theories of mucobioadhesion, with illustration.
d.	Briefly explain the different strategies used to overcome ocular barriers for effective drug delivery.
e.	Discuss the formulation and preparation of liposomes.
f.	Discuss the working principle and construction of metered dose inhaler.
g.	Explain different approaches used for drug targeting.