Roll No:

B. PHARM.
(SEM-VII) THEORY EXAMINATION 2020-21
INSTRUMENTAL METHODS OF ANALYSIS

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 chromophores and auxochromes.
b.	What is absorptivity?
c.	What are different types of vibrational modes observed in IR spectroscopy?
d.	Write about hollow cathode lamp.
e.	What is the difference between normal phase and reverse phase chromatography?
f.	What is electrophoretic mobility?
g.	What is HETP? Give its significance.
h.	What is Eddy diffusion?
i.	Write two examples each of cation and anion exchangers.
j.	Enlist the advantages and disadvantages of agarose and polyacrylamide gels.

SECTION B

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

a.	Enlist the different components of uv-visible spectrophotometer and explain the working of double beam spectrophotometer along with well labeled diagram.
b.	Explain principle, instrumentation, and application of flame photometry.
c.	Discuss about principle and instrumentation of HPLC.

SECTION C

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

a.	What is Lambert-Beer's law? Explain its deviations along with quantitative applications.
b.	Compare the working of dispersive IR and FTIR instruments. Explain working of FTIR in detail.
c.	Explain principle, instrumentation, and application of fluorimetry.
d.	Explain principle, methodology with applications of ion exchange chromatography.
e.	What is electrophoresis? Explain different types of electrophoresis techniques with their principle and applications.
f.	Write about principle, methods, and applications of TLC.
g.	Write note on theory and working of gel electrophoresis.

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B. PHARM.
(VII SEMESTER) THEORY EXAMINATION 2022-23
INSTRUMENTAL METHODS OF ANALYSIS

Time: 3 Hours *Total Marks: 75*

Note: Attempt all Sections.

SECTION A

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

(a) Give principle of UV spectroscopy.

(b) Describe quenching with examples.

(c) Explain principle of Flame Photometry.

(d) What are various methods for preparation of TLC plates?

(e) Give significance of Fermi Resonance.

(f) Define Chromophores with examples.

(g) Give names of detectors used in HPLC.

(h) Describe principle of Affinity Chromatography.

(i) Explain applications of Nephelometry.

(j) Discuss factors affecting Vibrational frequency in IR spectroscopy.

SECTION B

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

(a) Discuss theory involved in IR Spectroscopy. Explain instrumentation of IR spectrophotometer with applications.

(b) Describe theory, principle, instrumentation and applications of Gas Chromatography.

(c) Differentiate between Atomic absorption and atomic emission. Describe various interferences involved in Atomic Absorption Spectroscopy.

SECTION C

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

(a) Give theory of Gel Electrophoresis. Explainfactors affecting electrophoretic mobility.

(b) What is Finger Print region? Explainfundamental modes of vibrations in poly atomic molecules.

(c) Explain applications of Spectrofluorometry.

(d) Describe mechanism of ion exchange process in Ion Exchange Chromatography.

(e) Explain Isocratic and Gradient Elution in HPLC.

(f) Discuss significance of derivatisation in Gas Chromatography.

(g) Describe spectral shifts and solvent effect on absorption spectra in UV Spectroscopy.

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B PHARM
(SEM VII) THEORY EXAMINATION 2022-23
INDUSTRIAL PHARMACY II

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 Pilot Plant.
(b) Describe Platform Technology.
(c) Define Confidentiality Agreement.
(d) Discuss the practical aspects of Commercialization.
(e) Explain Drug metabolism and Toxicology.
(f) Quote the responsibilities of Regulatory affairs professionals.
(g) Define ISO 14000.
(h) Write a short note on GLP.
(i) Define CDSCO.
(j) Define Certificate of Pharmaceutical Product (COPP).

SECTION B

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

(a) What are SUPAC Guidelines. Explain the SUPAC guidelines for immediate release dosage forms.
(b) Outline Quality Risk Management. Discuss the various risk management tools and methodologies.
(c) Explain :
  (i) Total Quality Management
  (ii) Out of Specification
  (iii) Change Control
  (iv) ISO 9000 series

SECTION C

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

(a) Describe the pilot plant scale up considerations for solid dosage forms.
(b) Discuss the significance of space requirements and raw materials in pilot plant set up.
(c) Explain various Technology Transfer agencies in India.
(d) Outline Validation and Qualification. Write a short note on Analytical Method Transfer.
(e) Summarize Investigational Brochure. What do you understand by IND.
(f) Describe Six Sigma Concepts.
(g) Explain the organization structure and responsibilities of CDSCO.

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B PHARM

(SEM VII) THEORY EXAMINATION 2021-22

PHARMACY PRACTICE

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.	Suggest few responsibilities of hospital pharmacists
b.	Suggest the major roles of pharmacist in the medication adherence
c.	Define adverse drug reaction.
d.	What are the various types of inventory control process?
e.	How will you differentiate hospitals into clinical and non clinical basis?
f.	What is medication chart review?
g.	Mention some sources of drug information in Indian context.
h.	Define patient counseling.
i.	Narrate the contents of hospital formulary.
j.	What are the legal requirements of maintaining a drug store?

SECTION B

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

a.	Explain hospital pharmacy. Enumerate the layout and staff requirements of hospital pharmacy.
b.	What are the various ways of detecting ADR. Suggest some ways to control them.
c.	Enumerate the various steps involved in patient counseling. Justify the role of pharmacists as a patient counselor

SECTION C

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

a.	Discuss the various types of classification of hospital. Explain the organization structure of a hospital highlighting its staff requirements.
b.	Classify the various types of ADR. Write short notes on genetically determined toxicity.
c.	Explain various types of drug distribution system highlighting the process with special reference to ambulatory patients
d.	Suggest the various factors to be considered for therapeutic drug monitoring. Highlight the current scenario in India with respect to Therapeutic Drug Monitoring
e.	Explain the organization, functions and policies of Pharmacy and Therapeutic Committee
f.	Narrate the principles procedure to be followed from purchase order, procurement and stocking. Explain economic order quantity(EOQ)
g.	Write short notes on “Drug Therapy Monitoring”

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B PHARM
(SEM VII) THEORY EXAMINATION 2022-23
PHARMACY PRACTICE

Time: 3 Hours *Total Marks: 75*

Note: 1. Attempt all Sections.

SECTION A

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

(a) Define ADR.
(b) Explain Therapeutic drug monitoring.
(c) Gives some sources of drug information in Indian background.
(d) Structure of retail and whole sale drug store.
(e) Write the code of ethics of community pharmacy.
(f) What is ward round participation?
(g) What is drug store management?
(h) Write the concept of clinical pharmacy.
(i) Gives the various types of inventory control process?
(j) Gives the objectives of patient counseling.

SECTION B

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

(a) Classify hospital and explain the organization structure of a hospital highlighting its staff requirements.
(b) Discuss various type of drug distribution system in a hospital for In and Out patient.
(c) Write the role of pharmacist in education and tanning program in the hospital and also explain the internal and external training program in hospital.

SECTION C

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

(a) Discuss and defined the investigational of new drug.
(b) Write a note on drug therapy monitoring and OTC Medication.
(c) Defined therapeutic drug monitoring and gives its factors to be considered and what are the roles in Indian scenario.
(d) Define budget and what are the steps involving in preparing a budget? Explain briefly.
(e) Explain the principle involved in the methods of inventory control ABC, VED, EOQ.
(f) Write the different clinical laboratory test for blood.
(g) Give the objective, need, advantage of hospital formulary.

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Subject Code: BP703T

Roll No:

B PHARM
(SEM VII) THEORY EXAMINATION 2020-21
PHARMACY PRACTICE

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.	Write about the location and size of Pharmacy as per Indian Public Health Standards.
b.	How adverse drug event is different from adverse drug reaction?
c.	Define Medication Adherence. Enlist Causes of Medication Non-adherence.
d.	What do you mean by Medication History Interview?
e.	Comment on Role of Pharmacist in the Interdepartmental Communication.
f.	Write objectives of "Code of Ethics" for pharmacist.
g.	Define Role of Pharmacist in Drug therapy monitoring.
h.	How Pharmacists play a crucial role in budget preparation?
i.	Define "false-positive test result" with suitable example.
j.	Enlist various biochemical test performed during urine analysis.

SECTION B

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

a.	Define hospital and classify hospitals on the basis of different aspects.
b.	Define hospital formulary. Describe the types of hospital formularies and highlight the criteria for adding drugs in the formulary.
c.	Write in brief about concept of clinical pharmacy and elaborate the scope of clinical pharmacy.

SECTION C

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

a.	Enlist objectives of hospital pharmacy and describe the functions of hospital pharmacy.
b.	Classify Adverse Drug Reaction and define different types of ADRs with suitable examples.
c.	Write a note on material management in community pharmacy.
d.	Describe the organizational structure, functions of Pharmacy and therapeutic committee.
e.	Write about the history and objective of drug information service. Describe sources of drug information.
f.	Define and classify 'Over-the-Counter (OTC) Medicines. Discuss about the Indian Scenario for OTC medicines.
g.	Describe the techniques of inventory management.

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PAPER ID-310812

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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.

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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.