

QP Code: 721006

Reg. No.....

**Seventh Semester B. Pharm Degree Supplementary Examinations  
June 2023  
Instrumental Methods of Analysis  
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

**Essays**

**(2x10=20)**

1. Explain the construction and working of a double beam UV spectrophotometer with the help of a neat diagram.
2. Explain the principle behind IR spectroscopy and the different stretching and bending vibrations.

**Short Notes**

**(7x5=35)**

3. Briefly explain what are the factors that affect intensity of fluorescence.
4. Explain the principle and types of resins employed in ion exchange chromatography.
5. Explain on the stationary and mobile phases used in gel chromatography.
6. Explain any two types of burners used in Flame Photometry.
7. What are the types of columns used in gas-liquid chromatography.
8. Explain the instrumentation setup of HPTLC.
9. Explain zone electrophoresis.

**Answer Briefly**

**(10x2=20)**

10. In fluorescence what is intersystem crossing.
11. Explain Isobestic point.
12. Explain flame atomizers.
13. Explain derivatization in Gas chromatography.
14. Give four examples of detectors used in gas-liquid chromatography.
15. Column efficiency.
16. Distinguish between guard column and analytical column.
17. State four applications of HPLC.
18. Mention two methods of detecting spots on a TLC plate.
19. What is the role of a ultrasonicator in HPLC.

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QP Code: 722006

Reg. No.....

**Seventh Semester B. Pharm Degree Supplementary Examinations  
June 2023  
Industrial Pharmacy  
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

**Essays**

**(2x10=20)**

1. Describe the steps involved in the pilot plant scale up techniques for the development of semisolid dosage forms with relevant documentation
2. Discuss the WHO guidelines followed for Technology Transfer in the introduction of drug product for marketing.

**Short Notes**

**(7x5=35)**

3. SUPAC guidelines.
4. Discuss the responsibilities of State Licensing authority.
5. Quality risk management.
6. Describe briefly about platform technology.
7. Investigator's Brochure.
8. Discuss the regulatory requirements for drug approval.
9. Plant location and layout of a pharmaceutical industry.

**Answer Briefly**

**(10x2=20)**

10. Types of hazards.
11. What is CTD (common technical document).
12. Different phases of clinical trials.
13. TT agencies in India.
14. Explain INDA.
15. Organization of CDSCO.
16. Define Validation.
17. Define overages.
18. Confidentiality agreement in technology of transfer.
19. What are the contents of NDA application.

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QP Code: 723006

Reg. No.....

**Seventh Semester B. Pharm Degree Supplementary Examinations  
June 2023  
Pharmacy Practice  
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

**Essays**

**(2x10=20)**

1. Discuss the design and legal requirements for community pharmacy management.
2. Define medication adherence. Explain the reasons of non-adherence and what are the roles of a pharmacist in monitoring and improving medication adherence.

**Short Notes**

**(7x5=35)**

3. Storage and dispensing of controlled drugs.
4. Roles and responsibilities of community pharmacist.
5. Significance of verbal and nonverbal communication during patient counselling.
6. Explain the management of peptic ulcer.
7. Guidelines for patient medication history interview.
8. Applications of ABC and VED analysis.
9. Role of purchasing agent in drug procurement.

**Answer Briefly**

**(10x2=20)**

10. Classify the various types of hospitals.
11. Write about various drug distribution methods in a hospital.
12. What are the various registers to be maintained in a community pharmacy.
13. Mention the various reasons for ordering for therapeutic drug monitoring.
14. Define patient counseling.
15. Write the examples of primary drug information sources.
16. Enumerate the classes of drugs used in bronchial asthma.
17. Mention types of ward round participation.
18. Enumerate pulmonary function tests.
19. Write the equation for estimating the reorder quantity.

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QP Code: 724006

Reg. No.....

**Seventh Semester B. Pharm Degree Supplementary Examinations  
June 2023  
Novel Drug Delivery Systems  
(2017 Scheme)**

**Time: 3 Hours**

**Max. Marks: 75**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

**Essays**

**(2x10=20)**

1. Mention the need for gastro retentive drug delivery systems. Explain the methodology of floating drug delivery system with suitable examples (4+6)
2. Mention the limitations of conventional ocular preparations. Discuss the importance of ocular inserts (4+6)

**Short Notes**

**(7x5=35)**

3. Discuss on pharmaceutical applications of polymers
4. Merits and demerits of microspheres
5. Explain the factors affecting drug permeation across mucosal membrane
6. Monoclonal antibodies
7. Elaborate the recent developments on the concept of nanotechnology in pharmaceuticals
8. Explain controlled release delivery system based on the principle of diffusion mechanism
9. Smart polymers with examples

**Answer Briefly**

**(10x2=20)**

10. Recall the use of penetrants and crosslinking agent in trans dermal drug delivery system.
11. Mention the applications of dry powder inhalers.
12. Write the merits and demerits of buccal drug delivery system
13. Differentiate biodegradable and non-biodegradable polymers with examples
14. Enlist biological factors affecting selection of drug candidate
15. Differentiate microsphere and nanoparticles
16. Write the mechanism of osmotic drug delivery system
17. Mention the applications of nanoparticles
18. Mention the main components of liposome formulation
19. Name any two categories of marketed transdermal patches with examples

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