

QP Code: 721006

Reg. No.....

**Seventh Semester B. Pharm Degree Special Supplementary
Examinations July 2022
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 Beer-Lambert's law. Derive the Beer-Lambert's equation and explain the deviations.
2. With the help of a schematic diagram, explain the instrumentation of HPLC. Add a note on detectors used in HPLC.

Short Notes

(7x5=35)

3. Explain the different types of spectral shifts observed in UV – visible spectroscopy.
4. Classify sampling techniques in IR spectroscopy. How to prepare solid samples by pressed pellet technique to obtain IR spectrum.
5. Enlist and explain with example the qualitative applications of UV spectroscopy.
6. What is programmed temperature gas chromatography. Write its principle and advantages.
7. Why high pressure pumps are important in HPLC. Explain the working of reciprocating pump.
8. Define and classify chromatography. Explain the mechanisms of separation in chromatography.
9. Differentiate between free boundary electrophoresis and zone electrophoresis. Write the procedure and applications of paper electrophoresis.

Answer Briefly

(10x2=20)

10. Define quenching of fluorescence.
11. Differentiate between Hyperchromic and hypochromic effect using UV Spectra.
12. Why photomultiplier tube is considered as the most sensitive detector in UV spectroscopy.
13. What is the finger print region of IR Spectrum.
14. Any two applications of gel filtration chromatography.

15. What are the factors affecting the "Chromatographic column efficiency.
16. Explain how softening of hard water could be achieved by using "Ion exchange chromatography
17. What is two dimensional development in TLC. Explain its importance.
18. Explain with examples the specific and non-specific detection techniques in TLC.
19. Differentiate between normal phase and reversed phase chromatography.

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**Seventh Semester B. Pharm Degree Special Supplementary
Examinations July 2022
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. Explain general consideration and significance of personnel requirements, space requirement of pilot plant scale up techniques.
2. Explain in detail about WHO guidelines for technology transfer.

Short Notes

(7x5=35)

3. Explain the regulatory requirement for non-clinical drug development.
4. Describe the factors influencing the location of the pharmaceutical industry.
5. Explain approved regulatory bodies and agencies.
6. Explain detail about Common Technical Document (CTD).
7. Mention some important consideration to platform technology.
8. Introduction and historical overview of regulatory affairs.
9. Explain APCTT and BCIL.

Answer Briefly

(10x2=20)

10. What are accident records.
11. What is NDA.
12. Write the importance of risk management principles.
13. Define transfer of technology.
14. What are fire hazards and electrical hazards.
15. What are regulatory requirements and approval procedure for new drugs.
16. Significance of SUPAC guidelines.
17. Differentiate between process layout and product layout.
18. List out the responsibility of regulatory affairs professionals.
19. Define commercialization.

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Reg. No.....

**Seventh Semester B. Pharm Degree Special Supplementary
Examinations July 2022
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. Describe location, layout and staff requirement for a Hospital Pharmacy.
2. Define and classify adverse drug reactions. Explain the mechanism of Type A reaction with example.

Short Notes

(7x5=35)

3. Management of Myocardial Infarction.
4. Explain the various hematological tests used to measure the abnormal constituents of blood.
5. Rational use of over the counter drugs.
6. Explain unit dose drug dispensing system and complete floor stock system for in-patients.
7. Explain the various sources of drug information services.
8. Define therapeutic drug monitoring and need for therapeutic drug monitoring.
9. Functions of pharmacy and therapeutic committee.

Answer Briefly

(10x2=20)

10. Legal requirements to be followed for establishing a drug store.
11. Advantages and disadvantages of ABC analysis.
12. Non-pharmacological management of epilepsy.
13. Methods used for analysis of drug expenditure.
14. Write any four communication skills required for a pharmacist.
15. Procedure adopted by PTC to prepare a list of emergency drugs.
16. Factors that influence non adherence to medication.
17. Differentiate between drug list and hospital formulary.
18. Write any four functions of a hospital.
19. Draw a medication interview form to collect patient details.

QP Code: 724006

Reg. No.....

**Seventh Semester B. Pharm Degree Special Supplementary
Examinations July 2022
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. Explain the formulation approaches for Transdermal delivery systems. Add a note on the basic components of TDDS
2. Discuss methods of microencapsulation

Short Notes

(7x5=35)

3. Describe ideal drug candidates for buccal drug delivery
4. Discuss the concept of Monoclonal antibodies
5. Explain the concept of osmotic pump
6. Explain diffusion and dissolution-controlled systems citing suitable examples
7. Describe any two theories of mucoadhesion
8. Briefly outline the method of preparation of liposomes
9. What do you mean by Floating drug delivery systems

Answer Briefly

(10x2=20)

10. List the approaches for targeted drug delivery
11. Mention the applications of nanoparticles
12. Metered dose inhaler
13. Give any four examples of permeation enhancers used in transdermal drug delivery
14. What are the major components of niosomes
15. Explain intra ocular barriers
16. Give two examples each for biodegradable and non-biodegradable polymers
17. Highlight the importance of pulmonary drug delivery
18. List four desirable properties of polymers for pharmaceutical use
19. Write about ideal drug candidates for controlled drug delivery
