QP Code: 721006 **Reg. No…….**

Seventh Semester B. Pharm Degree Regular/Supplementary Examinations February 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. With the help of a ray diagram, explain the instrumentation requirements of UV spectrophotometer. Discuss the working of Photomultiplier tube in detail.
2. Define and classify Chromatography. With the help of van-Deemter equation and van-Deemter plot, discuss the factors influencing the efficiency of separation.

Short Notes **(7x5=35)**

3. Explain simultaneous equation method of multicomponent analysis.
4. With the help of neat and labelled diagram, write a note on Golay detector used in IR spectroscopy.
5. Explain the construction and working of Hollow Cathode Lamp with the help of a neat diagram.
6. Discuss the steps involved in Paper chromatography. Discuss the importance of Chamber saturation in paper chromatograpy.
7. Discuss the mechanism of ion exchange chromatography. Discuss the applications of ion exchange chromatography.
8. Explain the construction and working of thermal conductivity detector in GC.
9. What is the principle of Electrophoresis. Explain the factors in electrophoresis. Write the procedure and applications of paper electrophoresis.

Answer Briefly **(10x2=20)**

10. Differentiate between Bathochromic and hypsochromic shifts with the help of UV Spectra.
11. What is Quenching. List the factors responsible for quenching of fluorescence.
12. What are the ideal properties of a UV detector.
13. Why emission wavelength is always longer than absorption wavelength.
14. Write the formulae and explain how the Number of Theoretical plate can be determined from a chromatogram
15. Why activation of chromatographic plate is important in adsorption TLC
16. Explain the principle of affinity chromatography.
17. Differentiate between Isocratic elution and gradient elution in HPLC.
18. Write briefly on carrier gases used in GC.
19. Explain the working of “Rotary sample valve/loop injection” used for sample injection in HPLC.

****

QP Code: 722006 **Reg. No……**

Seventh Semester B. Pharm Degree Regular/Supplementary Examinations February 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. Explain technology transfer protocol and quality risk management in technology development and also process involved in technology transfer from R and D to production.
2. Explain the general consideration of pilot plant scale up techniques for the development of liquid orals forms with relevant documentation.

Short Notes **(7x5=35)**

3. Explain any two hazards and their industrial safety measures.
4. Explain SUPAC guidelines.
5. Explain organization and responsibilities of CDSCO.
6. What are confidentiality agreements and MoUs.
7. Explain the granularity of TT process involved in technology development and transfer.
8. Explain Data presentation for FDA submissions.
9. Explain Certificate of Pharmaceutical Product (COPP).

Answer Briefly **(10x2=20)**

10. List out the major utility and service systems used in pharma industry.
11. Importance of Investigators Brochure (IB) and NDA.
12. Define TIFAC and TBSE.
13. What are regulatory requirements and approval procedure for new drug.
14. List out the different modules of CTD.
15. What are general consideration of Investigational New Drug (IND) application.
16. Format of COPP.
17. Define technology transfer protocol.
18. Define accident records.
19. What are the steps involved in scale up process.

****

QP Code: 723006 **Reg. No…….**

Seventh Semester B. Pharm Degree Regular/Supplementary Examinations February 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. Explain the importance of drug distribution techniques and discuss in detail about unit dose drug distribution method in a hospital.
2. Define adverse drug reaction. Discuss in detail on its management along with its reporting and classification.

Short Notes **(7x5=35)**

3. Steps involved in pharmaceutical care planning.
4. Explain the management of hypertension.
5. Roles and responsibilities of pharmacy and therapeutic committee.
6. Different methods of inventory control in pharmacy.
7. Liver function tests associated with cholestatic liver disease.
8. Explain rational use of antibiotics.
9. Requirements for poison information centre.

Answer Briefly **(10x2=20)**

10. Mention the responsibilities of hospital pharmacist.
11. Write the key functions of hospitals.
12. Define therapeutic drug monitoring.
13. Addition and deletion of drug from hospital formulary.
14. Steps in patient counseling.
15. Write the various drug information resources.
16. Mention different types of ward round participation.
17. What is medication chart review.
18. Define the term buffer stock/safety stock.
19. Mention the common systems for arranging medicines in the shelves.

****

QP Code: 724006 **Reg. No…….**

Seventh Semester B. Pharm Degree Regular/Supplementary Examinations February 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. Classify approaches to design controlled release dosage forms. Explain the principle involved in the design of dosage form using ion exchange resins (5+5)
2. Discuss the formulation aspects in the development of buccal patches citing suitable examples

Short Notes **(7x5=35)**

3. Explain the basic components of transdermal patches
4. Importance of polymers in formulation development
5. Explain in-situ ocular delivery systems
6. Discuss formulation criteria for pulmonary route of drug administration
7. Differentiate between liposomes and niosomes
8. Discuss the limitations of conventional ocular delivery systems
9. Explain any three theories of mucoadhesion

Answer Briefly **(10x2=20)**

10. Define repeat action tablets with examples
11. Write the merits and demerits of transdermal patches
12. Mention two examples each of hydrophilic and hydrophobic polymers
13. Enlist ideal features of permeation enhancers with examples
14. What are implants. Give example
15. Classify types of nasal formulations
16. Enlist the applications of microencapsulation
17. Mention the applications of nanoparticles.
18. Write the scope of targeted drug delivery
19. Enlist physico-chemical factors affecting selection of drug candidate

****