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P-887

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[6019]-7011

Final Year B. Pharmacy

BP - 701T : INSTRUMENTAL METHODS OF ANALYSIS

(2019 Pattern) (Semester - VII)

Time : 3 Hours]

[Max. Marks : 75

Instructions to the candidates:

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- 1) All questions are compulsory.
- 2) Neat diagram must be drawn wherever necessary.

Q1) Attempt the following (Any 5) :

[5 × 3 = 15]

- a) Discuss the principle of fluorescence with the help of Jablonski diagram.
- b) Discuss about various pumps used in HPLC.
- c) Discuss the term normal phase and reverse phase chromatography.
- d) Explain fingerprint region in IR spectroscopy.
- e) Discuss Van-Deemter equation in detail.
- f) Discuss the comparative aspects of nephelometry and turbidometry.
- g) What are the methods for quantitation by UV-Visible spectro photometry?

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Q2) Answer the following (Any 2) :

[2 × 10 = 20]

- a) Describe the principle, instrumentation and applications of Gas chromatography.
- b) Discuss in detail theory and instrumentation of double beam UV-Visible spectrophotometer.
- c) Explain the construction and working of flame emission spectrometry with neat labelled diagram and discuss various types of interferences occurred in atomic spectroscopy.
- d) Classify chromatographic techniques and describe quantitative and qualitative aspects of chromatographic analysis.

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Q3) Attempt the following (Any 8) :

[8 × 5 = 40]

- a) Draw a block diagram and explain the instrumentation of HPLC.
- b) Explain the concept of plate theory and rate theory for increasing the efficiency of column in chromatography. <https://pharmacyindia.co.in/>
- c) Discuss various types of transitions involved in UV-Visible spectroscopy.
- d) Write a note on :
  - i) Concept of molecular luminescence
  - ii) Applications of thin layer chromatography.
- e) Discuss the various steps involved in HPTLC.
- f) Write the principle, theory and applications of ion exchange chromatography.
- g) Write a note on : <https://pharmacyindia.co.in/>
  - i) Quenching of fluorescence
  - ii) System suitability parameters
- h) Write the instrumentation of Atomic absorption spectroscopy in detail.
- i) Discuss the factors affecting fluorescence spectroscopy.
- j) Give a detail account on detectors used in IR spectroscopy.



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**[6019]-7012**

**Fourth Year B. Pharmacy**

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**BP-702(T) : INDUSTRIAL PHARMACY - II  
(2019 Pattern) (Semester - VII)**

*Time : 3 Hours]*

*[Max. Marks : 75*

*Instructions to the candidates:*

- 1) Answer all questions.
- 2) Figures to the right indicates full marks.
- 3) Assume suitable data, if necessary. <https://pharmacyindia.co.in/>

**Q1) Objective Type Questions (Answer 5 out of 7) [5 × 3 = 15]**

- a) What is platform technology.
- b) What is qualification?
- c) Explain role of various ICH guidelines useful in tech transfer.
- d) What are the elements of QbD?
- e) Define clinical trial and explain Phase II
- f) List out the significance of NABL accreditation.
- g) Describe in brief about State licensing authority?

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**Q2) Long Answers (Answer 2 out of 4). [2 × 10 = 20]**

- a) Describe SUPAC guidance for all levels of changes in batch size.
- b) Describe various technology readiness levels.
- c) Explain the stages in the development of new drug. <https://pharmacyindia.co.in/>
- d) Explain the concepts of Total Quality Management and Quality by Design (QbD).

**Q3) Short Answers (Answer 8 out of 10). [8 × 5 = 40]**

- a) Explain risk management in technology transfer.
- b) Describe which post approval specification changes don't require permission?
- c) Explain failure mode effect analysis. <https://pharmacyindia.co.in/>
- d) Explain process validation. <https://pharmacyindia.co.in/>
- e) What is confidentiality agreement?
- f) What is platform technology?
- g) Explain the organization and functions of CDSCO.
- h) Explain the concepts of six sigma for Quality Improvement.
- i) Write short note on various phases of clinical trials.
- j) Explain the terminology QTPP and CPP with suitable example.

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Total No. of Questions: 3]

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**Fourth Year B.Pharmacy  
PHARMACY PRACTICE**

**(2019 Pattern) (Semester-VII) (BP703T)**

*Time : 3 Hours]*

*[Max. Marks : 75*

*Instructions to the candidates:*

- 1) Answer all questions.
- 2) Figures to the right side indicate full marks.
- 3) Assume suitable data if necessary.

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**Q1) Objective Type Questions (Answer any 5 out of 7).**

**[15]**

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- a) What is VED analysis.
- b) Differentiate between hospital formulary and drug list.
- c) Define over the counter (OTC) medications Explain advantages of OTC Product.
- d) Explain causes of medication non-adherence.
- e) Discuss responsibilities and functions of hospital pharmacist.
- f) Describe Significance of drug information centre.
- g) Discuss types of medication orders.

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**Q2) Long Answers (Answer any 2 out of 4).**

**[20]**

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- a) Explain need and components of patient medication history interview.
- b) Define drug interactions Explain various drug interactions with examples.
- c) Discuss role of pharmacist in medication adherence.
- d) Give a brief review on drug therapy based on pharmacokinetic and disease pattern.

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Q3) Short Answers (Answer any 8 out of 10). [40]

- a) Explain functions and objectives of financial planning in community Pharmacy. <https://pharmacyindia.co.in/>
- b) Define patient counseling and discuss about the steps and barriers involved in patient counselling.
- c) Explain methods of labeling of drugs in hospital.
- d) Define Adverse drug reactions. Write a note on hypersensitivity reactions. <https://pharmacyindia.co.in/>
- e) Discuss factors to be considered during therapeutic drug monitoring.
- f) Discuss in brief significance of different clinical laboratory tests.
- g) Discuss policies of Pharmacy and Therapeutic Committee (PTC) in including drugs into hospital formulary.
- h) Define budget. Discuss in brief about contents of budget.
- i) Discuss role of clinical Pharmacists in word round.
- j) Write a note on ABC analysis used for drug expenditure analysis.

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**P-890**

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**[6019]-7014**

**Final Year B. Pharmacy**

**BP-704T : NOVEL DRUG DELIVERY SYSTEM**

**(2019 Pattern) (Semester - VII)**

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*Time : 3 Hours]*

*[Max. Marks : 75*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to right indicate full marks.*

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**Q1)** Answer the following (Solve 5 out of 7) :

**[5 × 3 = 15]**

- a) Write a short note on propellants.
- b) Define and compare active & passive targeting.
- c) Describe nanoparticles along with their general properties.
- d) Explain ideal properties of bioadhesive polymer.
- e) What factors affect the designing of modified drug delivery system.
- f) What is targeted drug delivery? Give its applications.
- g) Write note on conservation method of microencapsulation.

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**Q2)** Answer in detail (Answer 2 out of 4) :

**[2 × 10 = 20]**

- a) Explain in detail different methods for formulation of TDDS along with evaluation.
- b) Explain the preparation & application of monoclonal antibiotics.
- c) Explain in detail formulation methods for nanoparticles along with advantages of nanoparticulate delivery.
- d) Explain in detail various methods of preparation of liposomes.

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Q3) Answer the following in brief (Answer 8 out of 10) : [8 × 5 = 40]

- a) Write a short note on biodegradable polymers. <https://pharmacyindia.co.in/>
- b) Explain the different theories of mucoadhesion.
- c) Explain the evaluation parameters for transdermal patches.
- d) Write a short note on contact- lens. <https://pharmacyindia.co.in/>
- e) What are advantages & disadvantages of implantable drug delivery system. <https://pharmacyindia.co.in/>
- f) Explain glass transition temperature & TGA of polymer.
- g) Explain metered dose inhaler.
- h) Explain the different barriers in ocular drug delivery.
- i) Describe vapour pressure activated implantable device.
- j) Describe DSC & TGA studies of evaluation of polymer.

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