

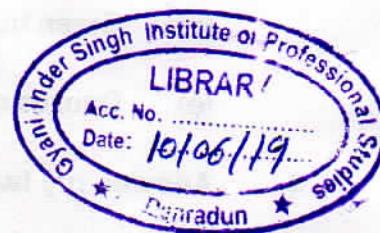
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**B. Pharmacy 8<sup>th</sup>  
Semester  
Question Paper  
2018-2019**

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Even Semester Examination 2018-19

B.PHARMA. (SEMESTER-VIII)

**ENVIRONMENT AND ECOLOGY**

Time: 03:00 Hours

Max Marks : 100

Note: Attempt all questions.

1. Answer any two out of three : (2×10=20)
  - (a) Differentiate between renewable and non renewable natural sources with examples.
  - (b) Discuss the role of forests in maintaining a healthy environment.
  - (c) Comment on the exploitation of land and water resources by human beings.
2. Answer any two out of three : (2×10=20)
  - (a) Write notes on:
    - (i) Production rates in temperate and tropical ecosystem.
    - (ii) Terrestrial ecosystem model
  - (b) What are the different reasons for extinction of species? Write a short account of endangered flora and fauna of India.
  - (c) What is ecosystem energetic? Describe the energy flow in a typical ecosystem.
3. Write short notes on any four out of five (4×5=20)
  - (a) Photochemical smog
  - (b) Nuclear pollution

- (c) Noise pollution
- (d) Green house effect
- (e) Causes of thermal pollution

**4. Answer any two out of three**

**(2×10=20)**

- (a) Write notes on:
  - (i) Air and water pollution control through law
  - (ii) National river conservation Plan
- (b) Write a note on Air quality standards as per Air (Prevention and control of pollution) Act 1987
- (c) What are the objectives of water prevention and control of Pollution Act, 1974?

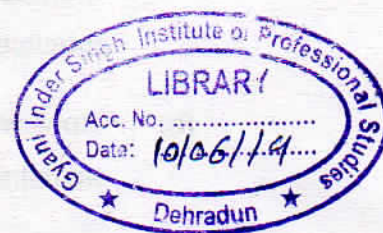
**5. Attempt any two out of three**

**(2×10=20)**

- (a) What is the subject matter of environment protection Act 1986 and extent of the Act?
- (b) What do you understand by the national environment tribunal and what are their functions?
- (c) What are the biomedical waste management rules and their implementation by hospitals and dispensaries?

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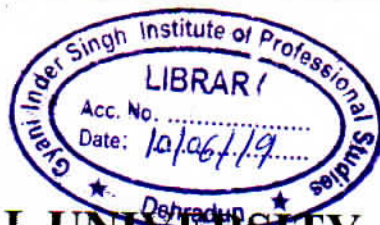
**Even Semester Examination 2018-19****B. Pharma. (SEMESTER-VIII)****CLINICAL PHARMACY****Time: 03:00 Hours****Max Marks : 100**

**Note :** Attempt **any five** questions of the following. Each question carries 20 marks.

1. (a) Define the term "Clinical Pharmacy". Give in detail various function of "Clinical Pharmacist". And discuss the scope of Clinical Pharmacy in India.  
(b) What is patient case history? Draw its structure and used in evaluation of drug therapy.
2. (a) Discuss in detail various "Hematological parameters" along with their significance.  
(b) What do you mean by Drug Interaction? Discuss the drug interaction with reference to analgesics and gastrointestinal agents.
3. (a) Define "adverse drug reaction." Discuss three types of adverse drug reaction. Explain their significance.  
(b) How can you monitor drug therapy show it's in flow charts and through clinical reviews.
4. (a) Write in detail about quality assurance of clinical pharmacy services.  
(b) Discuss the various sources of errors while dispensing a prescription. How are these errors corrected?

5. (a) How can you determine bioavailability of drug products by urinary excretion method? Give various application and limitations of this method in actual practice.
- (b) How will you calculate loading dose and maintenance dose and also dose adjustment of renal failure.
6. (a) Discuss diseases occur in cardiac system. How will you treat patient suffering from it?
- (b) Describe renal system. And include acute and chronic renal failure.
7. (a) What are the therapy which is used in gastric disorders.
- (b) Discuss in detail guidelines of good clinical research practices and ethical requirements.
8. (a) What are the various phases of clinical trials and execution of clinical trials.
- (b) Differentiate generic and branded drugs with valid reasons and myths.

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**B.Pharm-VIII SEM.EXAMINATION 2019**

**Paper code: PHR-803**

**Pharmaceutical Analysis-III**

Time- 3 Hrs

MM-100

**Note: attempt any five questions. Each question carries 20 marks.**

1. Explain the theory, instrumentation and application of Fluorimetric analysis
2. Write a note on (a) chemical shift (b) shielding and deshielding effects (c) spin-spin coupling (d) application of NMR
3. Discuss the principle, instrumentation and application of MASS spectrometry.
4. Discuss
  - (a) UV-Visible spectroscopy in structural analysis of organic compounds.
  - (b) Write a note on interpretation of IR spectra of Organic compounds.
5.
  - (a) Describe the Beer-Lambert's Law. Write the limitation of it.
  - (b) Define bathochromic shift, hyperchromic shift, bathochromic shift, hypsochromic shift, hypochromic shift and auxochrome.
6. Explain the theory, instrumentation and application of colorimetric analysis.
7. Discuss the principle, instrumentation and application of HPLC.



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**Even semester Examination-2019**  
**B.PHARM (VIII SEMESTER)**  
**PHARMACOPOEIAL STANDARDS (PHR 804)**

Time: 03:00 Hours

Max Marks: 100

**Q.1- Attempt any two questions-**

**(10×2=20)**

- (a). Write in details about Indian pharmacopoeial commission?
- (b). Write a note on historical events related to development of Indian pharmacopoeia.
- (c). Write a note on specific notices mentioned in Indian pharmacopoeia?

**Q.2- Attempt any two questions-**

**(10×2=20)**

- (a). What are two general tests employed on quality check for vaccines.
- (b). Explain two general test methods used for herbal drugs with example?
- (c). What are various physiochemical methods used in identification and purity of chemical.

**Q.3- Attempt any two questions-**

**(10×2=20)**

- (a). Write illustrative detailed monograph of dexamethasone.
- (b). Give an example of monograph of any one excipient.
- \* Lactose
  - \* Starch
- (c). Give an example of general monograph recombinant product.

**Q.4- Attempt any two questions-**

**(10×2=20)**

- (a). What are sieves? Explain their use in pharmaceutical tests methods.
- (b). Explain any two immunochemical methods and what are their advantages.
- (c). Write short notes on general notices for containers according to Indian pharmacopoeia?

**Q.5- Attempt any two questions-**

**(10×2=20)**

- (a). Explain monograph of betamethasone eye drop.
- (b). Write in details about general monographs on capsules.
- (c). Differentiate between antiserum and vaccine based on methods used to test their potency.

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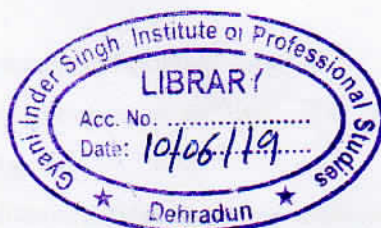
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EVEN SEMESTER EXAMINATION-2019  
**B. PHARM.**  
**ELECTIVE (Pharmaceutical Marketing)**  
Subject Code : PHR-805 C

Time: 03:00 Hours

Max Marks: 100

Note: Attempt all questions.



1. Answer **any four** out of five:

(4x5 = 20)

- Discuss in brief about principles of marketing management.
- What is target market identification? Discuss it briefly.
- What are the important elements of market analysis?
- How prescribing habits of physicians affect marketing strategies? Discuss briefly.
- What are the ways of patient motivation? Discuss them briefly.

2. Answer **any four** out of five:

(4x5 = 20)

- What do you mean by the term demand measurement? Discuss it briefly.
- Write a short note on geo-demo-graphic analysis.
- How market segmentation is important in pharmaceutical marketing?
- What do you understand by the term market targeting?
- Briefly write a note on diversification and specialization in pharmaceutical marketing with some suitable examples.

3. Answer **any two** out of three:

(2x10 = 20)

- What is pharmaceutical advertising and detailing? Discuss its impact in pharmaceutical marketing.
- Write a detailed note on retail competition and international marketing.
- Discuss in detail the role of competition in pharmaceutical marketing and its benefits for consumers.



4. Answer **any two** out of three: (2x10 = 20)

- (a) What are the various distribution channels involved in pharmaceutical market?  
Discuss them briefly.
- (b) What is the role of stockist and distributors in pharmaceutical marketing. Discuss in detail.
- (c) Discuss the role of manufacturer and retailer in pharmaceutical marketing.

5. Answer **any two** out of three: (2x10 = 20)

- (a) Write a detailed note on internal and external controls.
- (b) How hospitals and Government agencies are involved in pharmaceutical market?  
Discuss its involvement in detail.
- (c) Write a detailed note on pharmaceutical marketing strategies.

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**EVEN SEMESTER EXAMINATION-2019**

**B. PHARM.**

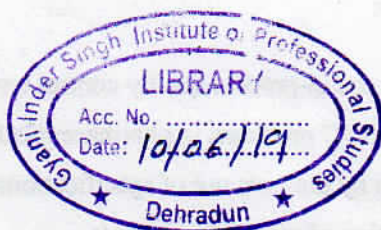
**ELECTIVE (GMP, Quality Assurance & Validation)**

**Subject Code : PHR-805 F**

**Time: 03:00 Hours**

**Max Marks: 100**

**Note:** Attempt all questions.



1. Answer **any four** out of five:

(4x5 = 20)

- (a) Write a short note on ICH.
- (b) Discuss briefly about the requirements of GLP.
- (c) Write a short note on GMP.
- (d) Write a short note on schedule G and H as per drug and cosmetic act.
- (e) Write a short note on ISO 9000.

2. Answer **any two** out of three:

(2x10 = 20)

- (a) Discuss in detail about schedule L1 and Y
- (b) Discuss about the process involved for new drug approval in detail.
- (c) Write in brief about the various types of documents and records required in a pharmaceutical industry.

3. Answer **any two** out of three:

(2x10 = 20)

- (a) Write a detailed note on basic concept of quality assurance along with its various responsibilities.
- (b) What are the various sources of quality variation? Discuss them briefly.
- (c) How quality variation can be controlled? Discuss in detail.

4. Answer **any two** out of three:

(2x10 = 20)

- (a) What do you mean by validation? Discuss its types along with its importance.
- (b) Discuss in detail about process validation and equipment validation.
- (c) Write a detailed note on the importance of building management system in pharmaceutical industry.

5. Answer **any two** out of three:

(2x10 = 20)

- (a) Write a detailed note on the in-process quality control tests.
- (b) Discuss in detail about IPQC problems in pharmaceutical industries.
- (c) What do you understand by the term out of specifications? Write a note on the importance of investigation of market complaints.

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PHR-805 F



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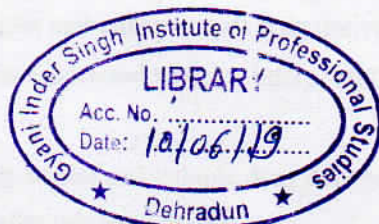
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**EVEN SEMESTER EXAMINATION-2019**  
**B. PHARM.**  
**ELECTIVE (Novel Drug Delivery System)**  
**Subject Code : PHR-805 E**

**Time: 03:00 Hours**

**Max Marks: 100**

**Note:** Attempt all questions.



1. Answer **any four** out of five:

(4x5 = 20)

- Write a short note on principles of controlled release drug delivery systems.
- Discuss the advantages and limitations of controlled release dosage forms.
- Discuss about the desired biopharmaceutic characteristics of drug to qualify for controlled release drug delivery systems
- Write a short note on the polymers used for the controlled release drug delivery systems
- Discuss the applications of controlled release drug delivery systems.

2. Answer **any two** out of three:

(2x10 = 20)

- Write a detailed note on carriers for drug delivery systems.
- What do you mean by the term microencapsulation? Discuss about its applications.
- Write a note on the chemical and biomedical engineering approach to achieve controlled drug delivery.

3. Answer **any two** out of three:

(2x10 = 20)

- Discuss the methods of evaluation of transdermal drug delivery systems.
- What are the different types of implants? Discuss its evaluation methods.
- Write a detailed note on osmotic pump, its applications and evaluation methods.

4. Answer **any two** out of three:

(2x10 = 20)

- (a) What do you mean by targeted drug delivery systems? Discuss its importance in therapeutics.
- (b) Write a detailed note on nanoparticles and liposomes.
- (c) Write a detailed note on the methods used in drug targeting.

5. Answer **any two** out of three:

(2x10 = 20)

- (a) Write a note on stemcell therapy and transdermal drug delivery system.
  - (b) Write a note on the benefits associated with the buccal and nose to brain drug delivery systems.
  - (c) What do you understand by ocular and colonic drug delivery systems? How it can be achieved? Discuss its benefits and limitations.
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EVEN SEMESTER EXAMINATION-2019

**B. PHARM.**

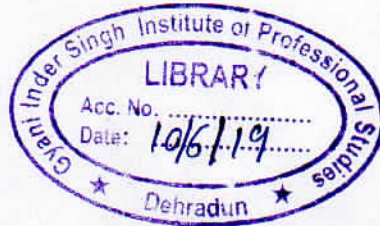
**ELECTIVE (Hospital Pharmacy)**

**Subject Code : PHR-805G**

**Time: 03:00 Hours**

**Max Marks: 100**

**Note:** Attempt all questions.



1. Answer **any four** out of five:

(4x5 = 20)

- Write a short note on organization of hospital pharmacy.
- Discuss about the responsibilities of a pharmacist.
- What do you mean by pharmacy and therapeutic committee? What are its functions.
- Write a short note on hospital formulary.
- How budget preparation and implementation is important in hospital pharmacy?

Discuss briefly.

2. Answer **any two** out of three:

(2x10 = 20)

- Write a detailed note on organization of a drug store.
- Write in detail about the various methods of inventory control.
- Write a detailed note on process involved in procurement and stocking.

3. Answer **any two** out of three:

(2x10 = 20)

- Discuss in detail about clean area classification and types of aseptic techniques used to maintain it.
- Write a detailed note on master formula record.
- Discuss in detail about the work flow and operations involved in a central sterile supply department.



4. Answer **any two** out of three:

(2x10 = 20)

- (a) What do you mean by drug information services? Write a detailed note on source of information on drugs.
- (b) What is medication error? What are its different causes? Discuss its potential solutions.
- (c) Discuss the process of recording patient medication profile and a case of drug interaction and adverse reaction.

5. Answer **any two** out of three:

(2x10 = 20)

- (a) Write detailed note on types of drug distribution systems.
- (b) Discuss in detail the process involved in dispensing drugs to ambulatory patients.
- (c) Write in detail about radiation hazards and its prevention. Discuss specifications of radio-active laboratory.

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