

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**

1<sup>st</sup> Sessional Exams, M.Pharm I<sup>ST</sup> IInd sem May-2023)

Subject: CLINICAL RESEARCH AND PHARMACOVIGILANCE Date: 19/05/23  
Paper code: MPL-204T Max marks: 30  
Paper id: Max time: 1.30 hrs

**Section A 3x4=12**

Attempt any 3 questions. Each question carries 4 marks

- (1) Write a note on case control studies.
- (2) Explain in detail various phases of clinical trials.
- (3) Write the Structure and content of an Informed Consent Process.
- (4) Write the Ethical Guidelines for Biomedical Research.

**Section B 3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

- (5) Describe structure, functions and ethical requirement of ICH-GCP.
- (6) Explain in detail the process of designing study protocol in clinical trials.
- (7) Explain the role of investigators in clinical trials.
- (8) Write the composition and responsibilities of Institutional Review Board.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**

1<sup>st</sup> Sessional Exams, M.Pharm I<sup>ST</sup> IInd sem May-2023)

Subject: CLINICAL RESEARCH AND PHARMACOVIGILANCE Date: 19/05/23  
Paper code: MPL-204T Max marks: 30  
Paper id: Max time: 1.30 hrs

**Section A 3x4=12**

Attempt any 3 questions. Each question carries 4 marks

- (1) Write a note on case control studies.
- (2) Explain in detail various phases of clinical trials.
- (3) Write the Structure and content of an Informed Consent Process.
- (4) Write the Ethical Guidelines for Biomedical Research.

**Section B 3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

- (5) Describe structure, functions and ethical requirement of ICH-GCP.
- (6) Explain in detail the process of designing study protocol in clinical trials.
- (7) Explain the role of investigators in clinical trials.
- (8) Write the composition and responsibilities of Institutional Review Board.

Roll no.....  
**INNOVATIVE COLLEGE OF PHARMACY**  
1<sup>st</sup> Sessional Exams, M.Pharm 1<sup>st</sup> Ind sem (May-2023)

Subject: Principal of Drug Discovery  
Paper code: MPL-203T  
Paper id:  
Date: 18/05/23  
Max marks: 30  
Max time: 1.30 hrs

**Section A**      **3x4=12**

Attempt any 3 questions. Each question carries 4 marks

- (1) Explain the role of proteomics in target discovery and validation.
- (2) Explain the role of Antisense technologies in target discovery and validation.
- (3) Explain the role of Antisense oligonucleotides in target discovery and validation.
- (4) Write a note on target validation in drug discovery process.

**Section B**      **3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

- (5) Discuss the role of transgenic animals in drug discovery.
- (6) What is the role of nucleic acid and protein microarray in target discovery and validation?
- (7) Describe the methods of lead optimization.
- (8) Explain the role of genomics in target identifications.



Roll no.....  
**INNOVATIVE COLLEGE OF PHARMACY**  
1<sup>st</sup> Sessional Exams, M.Pharm 1<sup>st</sup> Ind sem (May-2023)

Subject: Principal of Drug Discovery  
Paper code: MPL-203T  
Paper id:  
Date: 18/05/23  
Max marks: 30  
Max time: 1.30 hrs

**Section A**      **3x4=12**

Attempt any 3 questions. Each question carries 4 marks

- (1) Explain the role of proteomics in target discovery and validation.
- (2) Explain the role of Antisense technologies in target discovery and validation.
- (3) Explain the role of Antisense oligonucleotides in target discovery and validation.
- (4) Write a note on target validation in drug discovery process.

**Section B**      **3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

- (5) Discuss the role of transgenic animals in drug discovery.
- (6) What is the role of nucleic acid and protein microarray in target discovery and validation?
- (7) Describe the methods of lead optimization.
- (8) Explain the role of genomics in target identifications.

Roll no.....  
**INNOVATIVE COLLEGE OF PHARMACY**

I Sessional Exam, M.Pharm I year, Isem (2022-2023)

Subject: Advance Biopharmaceutics

Date: 19/05/23

Paper code: MPH202T

Max marks: 30

Max time: 1:30 hr

**Section A**                      **6x5=30**  
**A) Attempt any 5 questions. Each question carries 6 marks.**

1. Explain the mechanism of drug absorption.
2. Write the factors affecting drug absorption.
3. Discuss the rate limiting step of drug absorption and physicochemical nature of drugs.
4. Write a short note on IVIVC.
5. Write the factors affecting the dissolution rate.
6. Discuss Noyes-whitney equation.



Roll no.....  
**INNOVATIVE COLLEGE OF PHARMACY**

I Sessional Exam, M.Pharm I year, Isem (2022-2023)

Subject: Advance Biopharmaceutics

Date: 19/05/23

Paper code: MPH202T

Max marks: 30

Max time: 1:30 hr

**Section A**                      **6x5=30**  
**A) Attempt any 5 questions. Each question carries 6 marks.**

1. Explain the mechanism of drug absorption.
2. Write the factors affecting drug absorption.
3. Discuss the rate limiting step of drug absorption and physicochemical nature of drugs.
4. Write a short note on IVIVC.
5. Write the factors affecting the dissolution rate.
6. Discuss Noyes-whitney equation.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**

I<sup>st</sup> Sessional Exams, M.Pharm I<sup>st</sup> IInd sem (May-2023)

Subject: PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS-II

Date: 19/05/23

Paper code: MPL-202T

Paper id:

Max marks: 30

Max time: 1.30 hrs

**Section A**

**3x4=12**

Attempt any 3 questions. Each question carries 4 marks

1. Define toxicology and explain its importance in assessing the adverse effects of chemicals on living organisms.
2. Differentiate between general, mechanistic, regulatory, and descriptive toxicology, highlighting their respective focuses and applications.
3. Describe the regulatory guidelines provided by OECD, ICH, EPA, and Schedule Y for conducting toxicity studies.
4. Explain the OECD principles of Good Laboratory Practice (GLP).

**Section B**

**3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

5. Describe the principles and methods involved in conducting acute eye irritation studies, skin sensitization studies, dermal irritation studies, and dermal toxicity studies.
  6. Explain the importance of standardized testing methods, including the use of validated in vitro and in vivo models, in conducting these specific toxicity studies.
  7. Discuss the endpoints, test protocols, and interpretation of results for acute eye irritation studies, skin sensitization studies, dermal irritation studies, and dermal toxicity studies.
- Explain the importance of acute, sub-acute, and chronic toxicity studies conducted through different routes of exposure (oral, dermal, and inhalational) as per OECD guidelines.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**

I<sup>st</sup> Sessional Exams, M.Pharm I<sup>st</sup> IInd sem (May-2023)

Subject: PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS-II

Date: 19/05/23

Paper code: MPL-202T

Paper id:

Max marks: 30

Max time: 1.30 hrs

**Section A**

**3x4=12**

Attempt any 3 questions. Each question carries 4 marks

1. Define toxicology and explain its importance in assessing the adverse effects of chemicals on living organisms.
2. Differentiate between general, mechanistic, regulatory, and descriptive toxicology, highlighting their respective focuses and applications.
3. Describe the regulatory guidelines provided by OECD, ICH, EPA, and Schedule Y for conducting toxicity studies.
4. Explain the OECD principles of Good Laboratory Practice (GLP).

**Section B**

**3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

1. Describe the principles and methods involved in conducting acute eye irritation studies, skin sensitization studies, dermal irritation studies, and dermal toxicity studies.
2. Explain the importance of standardized testing methods, including the use of validated in vitro and in vivo models, in conducting these specific toxicity studies.
3. Discuss the endpoints, test protocols, and interpretation of results for acute eye irritation studies, skin sensitization studies, dermal irritation studies, and dermal toxicity studies.
4. Explain the importance of acute, sub-acute, and chronic toxicity studies conducted through different routes of exposure (oral, dermal, and inhalational) as per OECD guidelines.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**

I<sup>st</sup> Sessional Exams, M.Pharm I<sup>st</sup> IInd sem (May-2023)

Subject: Advanced Pharmacology-II

Date: 18/05/23

Paper code: MPL-201T

Max marks: 30

Paper id:

Max time: 1.30 hrs

**Section A**

**3x4=12**

Attempt any 3 questions. Each question carries 4 marks

1. What are the molecular and cellular mechanisms of action of growth hormone and its role in regulating growth and metabolism?
2. Explain the molecular actions of insulin and how it regulates glucose metabolism in the body.
3. Describe the cellular and molecular mechanisms of action of  $\beta$ -lactam antibiotics, including their inhibition of bacterial cell wall synthesis and resistance mechanisms.
4. Explain the mechanism of action of aminoglycoside antibiotics and the ways in which bacteria develop resistance to them.

**Section B**

**3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

5. Discuss the mechanism of action of oral contraceptives and how they exert their effects on the reproductive system.
6. What are the molecular targets and mechanisms of action of corticosteroids in the treatment of inflammatory and immune-related disorders?
7. Discuss the cellular and molecular mechanisms of action of antifungal drugs and how they target fungal cells.
8. Explain the molecular mechanisms of action and resistance of antiviral drugs used in the treatment of viral infections such as HIV.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**

I<sup>st</sup> Sessional Exams, M.Pharm I<sup>st</sup> IInd sem (May-2023)

Subject: Advanced Pharmacology-II

Date: 18/05/23

Paper code: MPL-201T

Max marks: 30

Paper id:

Max time: 1.30 hrs

**Section A**

**3x4=12**

Attempt any 3 questions. Each question carries 4 marks

1. What are the molecular and cellular mechanisms of action of growth hormone and its role in regulating growth and metabolism?
2. Explain the molecular actions of insulin and how it regulates glucose metabolism in the body.
3. Describe the cellular and molecular mechanisms of action of  $\beta$ -lactam antibiotics, including their inhibition of bacterial cell wall synthesis and resistance mechanisms.
4. Explain the mechanism of action of aminoglycoside antibiotics and the ways in which bacteria develop resistance to them.

**Section B**

**3x6=18**

Attempt any 3 questions. Each question carries 6 marks.

5. Discuss the mechanism of action of oral contraceptives and how they exert their effects on the reproductive system.
6. What are the molecular targets and mechanisms of action of corticosteroids in the treatment of inflammatory and immune-related disorders?
7. Discuss the cellular and molecular mechanisms of action of antifungal drugs and how they target fungal cells.
8. Explain the molecular mechanisms of action and resistance of antiviral drugs used in the treatment of viral infections such as HIV.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
3<sup>rd</sup> Sessional Exams, B.Pharm 8<sup>th</sup> sem (2022-2023)

Subject – Pharmaceutical marketing  
Paper code: BP803ET  
Paper id:

Max marks: 30  
Max time: 2 hrs

**Section A**

**Attempt any 5 questions. Each question carries 2 marks. (2x5=10)**

1. Define Promotion.
2. Define Advertising.
3. What do you mean by Personal Selling?
4. What do you mean by Medical Exhibition?
5. What is the significance of Direct mailing?
6. What do you mean by Promotional Budget?

**Section B**

**Attempt any 4 questions. Each question carries 5 marks. (5x4=20)**

1. Classify the types of promotion in detail.
2. Write in detail about the factors affecting Promotion mix.
3. How to promote a new product or service.
4. Suggest some online promotional technique for OTC product.
5. Give in detail about methods of determining budget for promotional expenditure.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
3<sup>rd</sup> Sessional Exams, B.Pharm 8<sup>th</sup> sem (2022-2023)

Subject – Pharmaceutical marketing  
Paper code: BP803ET  
Paper id:

Max marks: 30  
Max time: 2 hrs

**Section A**

**Attempt any 5 questions. Each question carries 2 marks. (2x5=10)**

1. Define Promotion.
2. Define Advertising.
3. What do you mean by Personal Selling?
4. What do you mean by Medical Exhibition?
5. What is the significance of Direct mailing?
6. What do you mean by Promotional Budget?

**Section B**

**Attempt any 4 questions. Each question carries 5 marks. (5x4=20)**

1. Classify the types of promotion in detail.
2. Write in detail about the factors affecting Promotion mix.
3. How to promote a new product or service.
4. Suggest some online promotional technique for OTC product.
5. Give in detail about methods of determining budget for promotional expenditure.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
2<sup>ND</sup> Sessional Exam, B.Pharm VIII sem (2022-2023)

Subject: Social and preventive pharmacy      Date: 6/05/23  
Paper code: BP-802T                                      Max marks: 30  
Max time: 2hrs

**Section A**

**Attempt all questions. Each question carries 1 mark. 1x6=6**

1. What is the causative agent of Corona Virus?
2. What is the definition of Protective Medicines?
3. What is the drug addiction?
4. What is communicable diseases?
5. What is non-communicable diseases?
6. Write the names of medicines used for the treatment of Chicken guinea?

**Section B**

**Attempt any 3 questions. Each question carries 4 marks. 3x4=12**

7. Describe the role of Pharmacists in creating awareness against disease prevention.
8. Define different types of disease prevention .
9. Discuss the importance of personal hygiene and health care in preventing the spread of disease.
10. Write the general principles of prevention and control of Cholera.

**Section C**

**Attempt any 2 questions. Each question carries 6 marks. 6x2=12**

11. Explain the drug addiction and substance abuse.
12. Write the general principles involved in the treatment of the communicable diseases.
13. Write the general principles of prevention and control of SARS.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
2<sup>ND</sup> Sessional Exam, B.Pharm VIII sem (2022-2023)

Subject: Social and preventive pharmacy      Date: 6/05/23  
Paper code: BP-802T                                      Max marks: 30  
Max time: 2hrs

**Section A**

**Attempt all questions. Each question carries 1 mark. 1x6=6**

1. What is the causative agent of Corona Virus?
2. What is the definition of Protective Medicines?
3. What is the drug addiction?
4. What is communicable diseases?
5. What is non-communicable diseases?
6. Write the names of medicines used for the treatment of Chicken guinea?

**Section B**

**Attempt any 3 questions. Each question carries 4 marks. 3x4=12**

7. Describe the role of Pharmacists in creating awareness against disease prevention.
8. Define different types of disease prevention .
9. Discuss the importance of personal hygiene and health care in preventing the spread of disease.
10. Write the general principles of prevention and control of Cholera.

**Section C**

**Attempt any 2 questions. Each question carries 6 marks. 6x2=12**

11. Explain the drug addiction and substance abuse.
12. Write the general principles involved in the treatment of the communicable diseases.
13. Write the general principles of prevention and control of SARS.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
2<sup>nd</sup> Sessional Exams, B.Pharm 8<sup>th</sup> sem (2022-2023)

Subject – Pharmaceutical marketing  
Paper code: BP803ET  
Paper id:

Max marks: 30  
Max time: 2 hrs

**Section A**

**Attempt any 5 questions. Each question carries 2 marks. (2x5=10)**

- 1 Define Product Line with example.
2. Define Branding and its advantages.
- 3 Define product Portfolio.
4. What do you mean by Marketing Mix?
5. What are the 4Ps of Marketing?
- 6 Enlist the four magnitude of product mix.

**Section B**

**Attempt any 4 questions. Each question carries 5 marks. (5x4=20)**

1. Write a detailed note on Product positioning with its strategies.
2. Write a note on Product Mix & Product mix decision.
3. Write a note on Branding & packaging of product.
4. What is Product cycle? Explain its stages in details.
5. What do you mean by New Product? Explain the process of New Product Development.
6. Define product & write its classification with examples.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
2<sup>nd</sup> Sessional Exams, B.Pharm 8<sup>th</sup> sem (2022-2023)

Subject – Pharmaceutical marketing  
Paper code: BP803ET  
Paper id:

Max marks: 30  
Max time: 2 hrs

**Section A**

**Attempt any 5 questions. Each question carries 2 marks. (2x5=10)**

- 1 Define Product Line with example.
2. Define Branding and its advantages.
- 3 Define product Portfolio.
4. What do you mean by Marketing Mix?
5. What are the 4Ps of Marketing?
- 6 Enlist the four magnitude of product mix.

**Section B**

**Attempt any 4 questions. Each question carries 5 marks. (5x4=20)**

1. Write a detailed note on Product positioning with its strategies.
2. Write a note on Product Mix & Product mix decision.
3. Write a note on Branding & packaging of product.
4. What is Product cycle? Explain its stages in details.
5. What do you mean by New Product? Explain the process of New Product Development.
6. Define product & write its classification with examples



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
 Sessional Exams, B.Pharm 6<sup>th</sup> Sem (2022-2023)

Subject –Biopharmaceutics and pharmacokinetics    Date: 15/04/23  
 Paper code: BP604T    Max marks: 30  
 Paper id:    Max time: 2 hrs

**Section A**

Attempt any six questions. Each question carries 1 mark. **6x1=6**

1. What is the importance of pKa of drug in absorption?
2. Enlist drug transport mechanism through GIT.
3. What are the various route of drug administration?
4. Enlist the physiological factors for drug absorption
5. Define absorption and bioavailability.
6. Define Fick's first law of diffusion.
7. Draw the basic structure of cell membrane.

**Section B**

Attempt any 3 questions. Each question carries 4 marks. **3x4=12**

1. Enlist the various factors influencing GI absorption of a drug from its dosage form.
2. What is the relation between drug absorption and gastric emptying rate?
3. Enlist the characteristics of passive diffusion.
4. Write advantages and disadvantages of IV and oral route of drug administration.

**Section C**

Attempt any 2 questions. Each question carries 6 marks. **2x6=12**

1. Classify internal structure of a solid drug & define polymorphism and pseudopolymorphism.
2. Discuss the limitation and significance of pH partition hypothesis.
3. What is dissolution? Explain diffusion layer model.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
 Sessional Exams, B.Pharm 6<sup>th</sup> Sem (2022-2023)

Subject –Biopharmaceutics and pharmacokinetics    Date: 15/04/23  
 Paper code: BP604T    Max marks: 30  
 Paper id:    Max time: 2 hrs

**Section A**

Attempt any six questions. Each question carries 1 mark. **6x1=6**

1. What is the importance of pKa of drug in absorption?
2. Enlist drug transport mechanism through GIT.
3. What are the various route of drug administration?
4. Enlist the physiological factors for drug absorption
5. Define absorption and bioavailability.
6. Define Fick's first law of diffusion.
7. Draw the basic structure of cell membrane.

**Section B**

Attempt any 3 questions. Each question carries 4 marks. **3x4=12**

1. Enlist the various factors influencing GI absorption of a drug from its dosage form.
2. What is the relation between drug absorption and gastric emptying rate?
3. Enlist the characteristics of passive diffusion.
4. Write advantages and disadvantages of IV and oral route of drug administration.

**Section C**

Attempt any 2 questions. Each question carries 6 marks. **2x6=12**

1. Classify internal structure of a solid drug & define polymorphism and pseudopolymorphism.
2. Discuss the limitation and significance of pH partition hypothesis.
3. What is dissolution? Explain diffusion layer model.

Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
2<sup>nd</sup> Sessional Exams, B.Pharm 6<sup>th</sup> sem (2022-2023)

Subject – Pharmaceutical Quality Assurance  
Paper code: BP606T  
Paper id:

Max marks: 30  
Max time: 2 hrs

**Section A**

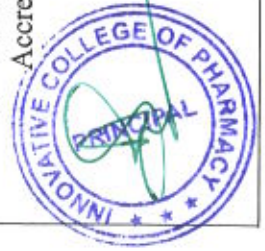
**Attempt any 5 questions. Each question carries 2 marks. (2x5=10)**

- 1 Define ISO 9000 & its objective.
2. Define EMS.
- 3 Define Equipment & Raw material.
4. What do you mean by Personal Hygiene?
5. What do you mean by NABL Accreditation?
- 6 Define Personnel records & write its purpose.

**Section B**

**Attempt any 4 questions. Each question carries 5 marks. (5x4=20)**

1. Write a detailed note on 'Key Personnel'.
2. Write a note on Principle areas of Premises.
3. Write down the steps involved in ISO 14000 Registration process.
4. Discuss the procedure for maintenance of sterile areas and control of contamination of pharmaceutical industries.
5. Write down the Principle & Procedure of NABL Accreditation.



Roll no.....

**INNOVATIVE COLLEGE OF PHARMACY**  
2<sup>nd</sup> Sessional Exams, B.Pharm 6<sup>th</sup> sem (2022-2023)

Subject – Pharmaceutical Quality Assurance  
Paper code: BP606T  
Paper id:

Max marks: 30  
Max time: 2 hrs

**Section A**

**Attempt any 5 questions. Each question carries 2 marks. (2x5=10)**

- 1 Define ISO 9000 & its objective.
2. Define EMS.
- 3 Define Equipment & Raw material.
4. What do you mean by Personal Hygiene?
5. What do you mean by NABL Accreditation?
- 6 Define Personnel records & write its purpose.

**Section B**

**Attempt any 4 questions. Each question carries 5 marks. (5x4=20)**

1. Write a detailed note on 'Key Personnel'.
2. Write a note on Principle areas of Premises.
3. Write down the steps involved in ISO 14000 Registration process.
4. Discuss the procedure for maintenance of sterile areas and control of contamination of pharmaceutical industries.
5. Write down the Principle & Procedure of NABL Accreditation.