**Code No: E-12366/PB**

# FACULTY OF PHARMACY

**Pharm D I Year (3 YDC) (PB) (Main & Backlog) Examination, October 2023**
**Subject: Pharmacotherapeutics – I & II**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. What are the diagnostic tests for osteoporosis
2. Write a brief note on newer diagnosis tests for tuberculosis
3. Define HbA1C, along with the normal value in diabetics and pre diabetics
4. Write the role of β-Blockers in the treatment of glaucoma
5. Define acute renal failure based on AKIN criteria
6. List out the secondary causes of hypertension
7. Write a brief note on spondylitis
8. Give the normal values of T3, T4 and TSH with its significance.
9. What are the risk factors for breast cancer?
10. Write a note on different types of Myocardial Infarction.

## PART - B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. (a) Explain in detail about the pharmacotherapy involved in Diabetes mellitus?
    (b) Write a note on HbA1c

12. (a) Write the basic principles of cancer therapy
    (b) Define and classify Leukaemia's

13. (a) Discuss general prescribing guidelines for paediatrics
    (b) Write down the formulas for YOUNG's and CLARKS

14. (a) Differentiate between osteoarthritis and Rheumatoid arthritis
    (b) Describe pharmacotherapy and the role of DMARDS in treatment of RA

15. Define COPD? Describe etiopathogenesis and diagnosis for COPD?

16. Write a note on haemodialysis. Mention the advantages and disadvantages of haemodialysis and peritoneal dialysis

17. (a) Define Rational drug use. Explain role of clinical pharmacist in rational drug use
    (b) Explain the measures and drug use indicators to promote rational drug use?

18. (a) Explain in detail about the treatment of malaria.
    (b) Add a note on diagnostic criteria for viral infections

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**Code No: E-12360**

# FACULTY OF PHARMACY

**Pharm. D IV – Year (6 YDC) (Main & Backlog) Examination, October 2023**

**Subject: Pharmacotherapeutics – III**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Differentiate ulcerative colitis & crohns disease
2. Write a note on use of triptans in migraine
3. Write a brief note on different scales for rating pain
4. Classify Anemia's based on morphology of RBC
5. What are the causes of backwash ileitis?
6. Classify types of stroke based on the mechanism
7. Classify antipsychotic agents with examples
8. Write a note on sleep cycles.
9. Define and classify pain.
10. What are the advantages of LMWH over UFH?

## PART - B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. (a) Write about pharmacist's approach towards evidence based medicine.
    (b) Explain the treatment of thrombocytopenia

12. (a) Write the treatment algorithm for bipolar disease.
    (b) Explain the pathogenesis, clinical presentation and management of Helicobacter pylori induced peptic ulcer disease.

13. (a) Explain the pathogenesis, symptoms and management of Alzheimer's disease
    (b) Write the diagnosis and treatment algorithm of hepatitis B infection

14. (a) Explain the clinical features and pathogenesis of alcoholic liver disease.
    (b) Define Anxiety. Explain the clinical features and treatment of panic disorder

15. (a) Explain in detail about etiopathogenesis of inflammatory bowel disease.
    (b) Write a brief note on Haemolytic Anaemia

16. (a) Explain the management of Acute Ischemic Stroke
    (b) Write a note on management of Obstructive Sleep Apnea

17. (a) Explain the role of Opioid Analgesics in pain management
    (b) Elaborate the role of 5 amino salicylate derivatives and their various formulations in the treatment of IBD

18. (a) Write a note on narcolepsy and its management.
    (b) Write a note on Jaundice and its management

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**Code No: E-12365**

# FACULTY OF PHARMACY

**Pharm. D IV Year (6 YDC) (Main & Backlog) Examination, September 2023**

**Subject: Clinical Toxicology**

**Time: 3 Hours** **Max. Marks: 70**

## PART-A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Define and give examples of antidotes.
2. What is an “anion gap” and what is its significance?
3. Enumerate the methods of decontamination of poison.
4. Write the uses and MOA of pralidoxime.
5. What are the clinical effects of methanol poisoning?
5. Write notes on diagnosis of radiation poisoning.
6. What are the causes of food poisoning?
7. What are different venomous snake families?
8. Describe about production of snake antivenom.
9. What are hallucinogens? Write the clinical effects of hallucinogens abuse?
10. Write the classification of drugs of abuse.

## PART-B

**Note: Answer any five questions** **(5 x 10 = 50 Marks)**

11. List out the methods of elimination of poison. Explain about forced diuresis and hemodialysis.

12. Discuss about clinical features, diagnosis and management of acute poisoning of opiates.

13. Discuss about clinical features, diagnosis and management of acute poisoning of Paracetamol.

14. Discuss about clinical features, diagnosis, treatment of sulfuric acid poisoning.

15. Discuss about clinical presentation, diagnosis and management of chronic arsenic Poisoning.

16. Write notes on mycotoxins poisoning.

17. Discuss about clinical features, diagnosis and management of scorpion stings.

18. Write in detail about alcohol dependence.

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**Code No: E-12364**

# FACULTY OF PHARMACY

**Pharm D IV – Year (6 YDC) (Main & Backlog) Examination, September 2023**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. What is Gastric emptying? Explain influence of food on drug absorption.
2. Explain the significance of protein binding of drugs.
3. Give examples for zero order and first order rate processes.
4. Write the significance of apparent volume of distribution.
5. Write a note on method of residuals.
6. The half-life of a drug is 6 hours. Calculate persistence factor and loss factor if the dose is administered (a) every 6 hours and (b) every 12 hours.
7. Write the difference between linear and nonlinear pharmacokinetics
8. Give the application of non-compartmental technique.
9. Explain Latin-square cross-over design.
10. Write a note on *in-vitro - in-vivo* correlations levels.

## PART – B

**Note: Answer any five questions** **(5 x 10 = 50 Marks)**

11. Write various dosage form related factors affecting the drug absorption.
12. Explain different compartment models along with suitable diagrams and mention their significance.
13. 50-kg woman was given a single IV dose of an antibacterial drug at a dose level of 6 mg/kg. Blood samples were taken at various time intervals. The concentration of the drug was determined in the plasma fraction of each blood sample and the following data were obtained. Assume that it follows one compartment open model. Calculate all possible pharmacokinetic parameters.

| **Time(Hours)** | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| **Concentration(µg/ml)** | 8 | 6.3 | 4.9 | 4 | 3 | 3 | 2 |

14. Explain designing of dosage regimen for multiple dosing.
15. What is *Michaelis–Menten* equation? How are $V_{max}$ and $K_m$ obtained from Steady-State Concentration
16. Derive mathematical equations used to calculate pharmacokinetic parameters following IV bolus administration assuming the drug follows two compartment open model.
17. Explain in detail about Statistical Moment Theory and write a note on various moment curves.
18. Explain various methods of measurement of bioavailability.

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**Code No: E-12363**

# FACULTY OF PHARMACY

**Pharm D IV – Year (6YDC) (Main & Backlog) Examination, September 2023**

**Subject: Bio Statistics and Research Methodology**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Explain Non parametric test.
2. Explain Null Hypothesis and alternate hypothesis with example
3. Explain primary data with suitable example
4. Explain the randomised clinical trial.
5. Explain Attributable risk.
6. Explain in brief corelation and regression
7. Define discrete and continuous variables.
8. Explain bar graph.
9. Explain Type I and Type II Error
10. Find Mean, Median and mode of given data.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| X | 33 | 57 | 25 | 32 | 11 | 33 | 42 |

## PART – B

**Note: Answer any five questions** **(5 x 10 = 50 Marks)**

11. Explain in detail about observational and interventional studies in clinical study design
12. Explain ONE WAY ANNOVA in detail with suitable example
13. (a) Explain box plot construction with suitable example
    (b) Draw a histogram for sale of antipyretic drugs over 70 drug stores

| Sale of antipyretic drugs (in Rs) | 100-200 | 200-300 | 300-400 | 400-500 | 500-600 |
|---|---|---|---|---|---|
| No. of drug stores | 17 | 15 | 12 | 14 | 12 |

14. (a) Explain Student 't' test and its applications.
    (b) Write the detail note on SPSS software used in clinical study analysis.
15. Find the Mean, Median, Mode, Standard Deviation, variance, Coefficient of variation, range and Standard Error of Mean of following data obtained from clinical study conducted in hospital for systolic blood pressure in hypertensive patients

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 145 | 95 | 135 | 125 | 115 | 135 | 165 | 155 | 115 | 110 |

16. (a) Explain the role of Computers in community Pharmacy
    (b) Explain the role of computers in hospital pharmacy
17. Write in detail the report writing of scientific research project.
18. (a) Using Karl Pearson's method find out the correlation coefficient between data and their frequency

| Data (X) | 7 | 10 | 19 | 23 | 16 | 30 | 31 |
|---|---|---|---|---|---|---|---|
| Frequency (f) | 5 | 12 | 15 | 20 | 16 | 26 | 21 |

    (b) Write a detail note on drug information storage and retrieval

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**Code No: E-12362**

# FACULTY OF PHARMACY

**Pharm D IV – Year (6YDC) (Main & Backlog) Examination, September 2023**

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

**PART-A**

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Write a short note on a) Drug Chart review b) Pharmacist intervention.
2. What is the role of clinical pharmacist in ADR management?
3. Write the interpretation of a) Iron deficiency anemia b) Vit B12 deficiency anemia.
4. Define Clinical Pharmacy? Write its applications.
5. Explain Disc-Diffusion method.
6. Write a short note on preparation and documentation of ward rounds.
7. Mention the different types of communication skills with examples.
8. Explain the resources of drug information with examples.
9. Write a short note on Written and verbal reports.
10. Write a note on DUE studies.

**PART-B**

**Note: Answer any five questions** **(5 x 10 = 50 Marks)**

11. (a) Define Pharmacovigilance and discuss the aims and scope of pharmacovigilance.
    (b) Write a note on ADR assessment scales.

12. Explain in detail about laboratory interpretation of renal disorders.

13. (a) Write the types of medication errors with examples.
    (b) Note on medication history interview.

14. Explain in detail about Microbiological culture sensitivity tests.

15. Write a note on a) Patient data analysis
    b) Quality assurance of clinical pharmacy services.

16. Explain in detail about Critical appraisal of biomedical literature.

17. Write a note on a) Poison information centers. b) Patient counseling.

18. Write a brief note:
    (a) SOAP analysis
    (b) FARM analysis

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**Code No: E-12361**

# FACULTY OF PHARMACY

**Pharm D IV Year (6 YDC) (Main & Backlog) Examination, September 2023**

**Subject: Hospital pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART-A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Classify Hospital based on size.
2. Define Hospital pharmacy.
3. Define Inventory control and list various methods of inventory control.
4. Write a short notes on Pharmacy and Therapeutic committee.
5. Write a short notes on Hospital pharmacy communication-News letter.
6. Write short notes on large volume parenterals.
7. Write a short notes on Individual prescription method.
8. Explain the Role of Pharmacist in Central sterile supply services
9. Define Total Parenteral Nutrition
10. Write short notes on sterile formulations –Small volume.

## PART-B

**Note: Answer any five questions** **(5 x 10 = 50 Marks)**

11. (a) Discuss the roles and responsibilities of Hospital Pharmacist.
    (b) Explain the functions of hospital.

12. Explain the drug distribution in the hospital.

13. Explain Hospital committees - Infection committee & Research and ethical committee.

14. Explain the preparation and implementation of budget.

15. Explain Manufacturing of Tablets and Capsules.

16. Explain Continuing professional development programs-Education & Training.

17. Explain Radiopharmaceuticals – Handling & Packaging.

18. Explain Professional Relations & Practices of Hospital pharmacist.

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**Code No. D-8369**

# FACULTY OF PHARMACY

**Pharma. D (6 YDC) IV Year (Main & Backlog) Examination, September 2022**

**Subject: Pharmacotherapeutics – III**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Write a note on use of triptans in migraine.
2. Differentiate between gastric ulcers and duodenal ulcers.
3. Classify Anemia's based on morphology of RBC's.
4. Classify types of stroke based on the mechanism.
5. Classify antipsychotic agents with examples.
6. Write about the pharmacological management of Alzheimer's disease.
7. Define early virologic response and sustained virologic response seen in HCV.
8. List out the drugs that help in sustaining alcohol abstinence.
9. Write the clinical presentation of Parkinsonism.
10. Write the international classification of Epileptic Seizures.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. (a) Etiology and clinical presentation of a patient with venous thromboembolism.
    (b) Zollinger Ellison syndrome and its management.
12. (a) Write about the patterns of drug induced liver disease.
    (b) Write briefly about alcoholic liver diseases and management.
13. Explain the steps involved in applying the Evidence Based Medicine process in Pharmacotherapeutic decision making.
14. (a) Write a note on induction of remission in inflammatory Bowel disease.
    (b) Explain the role of Opioid Analgesics in pain management.
15. Write the Etiology, Pathophysiology, Diagnosis and treatment for Hepatitis B.
16. (a) Write the staging of Parkinson's according to Hoehn and Yahr scale.
    (b) Write in detail about the role of carbidopa / levodopa and its motor complications in the management of Parkinson's disease.
17. (a) What are the different types of Bipolar disorders?
    (b) Discuss the management of Generalized Anxiety disorder.
18. Discuss briefly about types of Anaemia's and explain the role of parenteral iron supplements in management of iron deficiency anaemia.

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**Code No. D-8369/PB**

# FACULTY OF PHARMACY

**Pharma. D (3 YDC) I Year (PB) (Main & Backlog) Examination, September 2022**

**Subject: Pharmacotherapeutics – III**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Write a note on use of triptans in migraine.
2. Differentiate between gastric ulcers and duodenal ulcers.
3. Classify Anemia's based on morphology of RBC's.
4. Classify types of stroke based on the mechanism.
5. Classify antipsychotic agents with examples.
6. Write about the pharmacological management of Alzheimer's disease.
7. Define early virologic response and sustained virologic response seen in HCV.
8. List out the drugs that help in sustaining alcohol abstinence.
9. Write the clinical presentation of Parkinsonism.
10. Write the international classification of Epileptic Seizures.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. (a) Etiology and clinical presentation of a patient with venous thromboembolism.
    (b) Zollinger Ellison syndrome and its management.
12. (a) Write about the patterns of drug induced liver disease.
    (b) Write briefly about alcoholic liver diseases and management.
13. Explain the steps involved in applying the Evidence Based Medicine process in Pharmacotherapeutic decision making.
14. (a) Write a note on induction of remission in inflammatory Bowel disease.
    (b) Explain the role of Opioid Analgesics in pain management.
15. Write the Etiology, Pathophysiology, Diagnosis and treatment for Hepatitis B.
16. (a) Write the staging of Parkinson's according to Hoehn and Yahr scale.
    (b) Write in detail about the role of carbidopa / levodopa and its motor complications in the management of Parkinson's disease.
17. (a) What are the different types of Bipolar disorders?
    (b) Discuss the management of Generalized Anxiety disorder.
18. Discuss briefly about types of Anaemia's and explain the role of parenteral iron supplements in management of iron deficiency anaemia.

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**Code No. D-8371**

# FACULTY OF PHARMACY

**Pharma. D (6 YDC) IV Year (Main & Backlog) Examination, August 2022**

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Define pharmaceutical care? Write in detail about pharmaceutical care concepts.
2. Write a brief note on ward rounds.
3. Write a note on preparation of written & verbal reports.
4. Write a note on spontaneous reporting system with examples.
5. Define patient counselling? Write the brief note on patient counselling skills.
6. Write a note on laboratory interpretation of fluid & electrolyte imbalances.
7. Explain in detail about poison information centres.
8. Write a note on causality assessment of ADR's.
9. Write a brief note on drug therapy monitoring.
10. Explain in detail about laboratory interpretation of thyroid function tests.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Define clinical pharmacy? Write a note on development, scope & application of clinical pharmacy.
12. Define DUE? Write the brief note on process of DUE.
13. Explain in detail about the steps involved in critical evaluation of biomedical literature.
14. (a) Write a note on scope, aims & applications of pharmacovigilance.
    (b) Classify ADR's with examples and its mechanisms.
15. Explain in detail about laboratory interpretation of haematological conditions.
16. (a) Write a note on drug information centres.
    (b) Explain the steps involved in systematic approach of answering DI Queries.
17. (a) Write a note on patient counselling techniques.
    (b) Write a note on medication history interview.
18. Define quality assurance? Write a note on quality assurance of clinical pharmacy services.

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**Code No. D-8371/PB**

# FACULTY OF PHARMACY

**Pharma. D (3 YDC) I Year (PB) (Main & Backlog) Examination, August 2022**

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Define pharmaceutical care? Write in detail about pharmaceutical care concepts.
2. Write a brief note on ward rounds.
3. Write a note on preparation of written & verbal reports.
4. Write a note on spontaneous reporting system with examples.
5. Define patient counselling? Write the brief note on patient counselling skills.
6. Write a note on laboratory interpretation of fluid & electrolyte imbalances.
7. Explain in detail about poison information centres.
8. Write a note on causality assessment of ADR's.
9. Write a brief note on drug therapy monitoring.
10. Explain in detail about laboratory interpretation of thyroid function tests.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Define clinical pharmacy? Write a note on development, scope & application of clinical pharmacy.
12. Define DUE? Write the brief note on process of DUE.
13. Explain in detail about the steps involved in critical evaluation of biomedical literature.
14. (a) Write a note on scope, aims & applications of pharmacovigilance.
    (b) Classify ADR's with examples and its mechanisms.
15. Explain in detail about laboratory interpretation of haematological conditions.
16. (a) Write a note on drug information centres.
    (b) Explain the steps involved in systematic approach of answering DI Queries.
17. (a) Write a note on patient counselling techniques.
    (b) Write a note on medication history interview.
18. Define quality assurance? Write a note on quality assurance of clinical pharmacy services.

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**Code No. D-8370**

# FACULTY OF PHARMACY

**Pharma. D (6 YDC) IV Year (Main & Backlog) Examination, August 2022**

**Subject: Hospital Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Define Hospital
2. Define Hospital pharmacy.
3. Define Budget.
4. Write a short notes on Pharmacy and Therapeutic committee.
5. Write a short notes on Hospital Pharmacy Communication – News letter.
6. Define Inventory control.
7. Write a short notes on Unit Dose Drug Distribution Method.
8. Explain the Role of Pharmacist in Central sterile supply services.
9. Define Total Parenteral Nutrition.
10. Write short notes on sterile formulations – Large & Small volume parenterals.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain organization & functions of a Hospital.
12. Explain the Preparation & Implementation of Budget.
13. Explain Hospital committees – Infection committee & Research and ethical committee.
14. Discuss the methods of Distribution of Narcotic and other controlled substances in hospital pharmacy.
15. Explain Manufacture of Ointments, Liquids & Creams.
16. Discuss the role of Education and training programs for continuing professional development.
17. Explain Radiopharmaceuticals – Handling & Packaging.
18. Explain Professional Relations & Practices of Hospital pharmacist.

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**Code No. D-8370/PB**

# FACULTY OF PHARMACY

**Pharma. D (3 YDC) I Year (PB) (Main & Backlog) Examination, August 2022**

**Subject: Hospital Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Define Hospital
2. Define Hospital pharmacy.
3. Define Budget.
4. Write a short notes on Pharmacy and Therapeutic committee.
5. Write a short notes on Hospital Pharmacy Communication – News letter.
6. Define Inventory control.
7. Write a short notes on Unit Dose Drug Distribution Method.
8. Explain the Role of Pharmacist in Central sterile supply services.
9. Define Total Parenteral Nutrition.
10. Write short notes on sterile formulations – Large & Small volume parenterals.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain organization & functions of a Hospital.
12. Explain the Preparation & Implementation of Budget.
13. Explain Hospital committees – Infection committee & Research and ethical committee.
14. Discuss the methods of Distribution of Narcotic and other controlled substances in hospital pharmacy.
15. Explain Manufacture of Ointments, Liquids & Creams.
16. Discuss the role of Education and training programs for continuing professional development.
17. Explain Radiopharmaceuticals – Handling & Packaging.
18. Explain Professional Relations & Practices of Hospital pharmacist.

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**Code No. D-8374**

# FACULTY OF PHARMACY

**Pharma. D (6 YDC) IV Year (Main & Backlog) Examination, September 2022**

**Subject: Clinical Toxicology**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. What are the steps in general management of poisoning? Explain about antidote administration.
2. Enumerate the methods of elimination of poison. Explain about forced diuresis.
3. Write about diagnosis and management of radiation poisoning.
4. Write about clinical features and management of acute poisoning with benzodiazepines.
5. Define venom and write the clinical effects of snake venom.
6. Write about management of chronic poisoning with copper.
7. Write about prevention and control of mycotoxin poisoning.
8. Write short notes on venomous arthropods.
9. Define drug dependence, drug abuse. Write about general management of drug dependence.
10. Discuss about treatment of amphetamine dependence.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain in detail about gut decontamination.
12. Discuss about clinical features, diagnosis and management of acute poisoning of organophosphate.
13. Discus about clinical features, diagnosis and management of acute poisoning of methanol.
14. Discuss about clinical features, diagnosis and management of acute poisoning of arsenic.
15. Write brief notes on food poisoning.
16. Discuss about clinical features and management of snake bite.
17. Discuss about clinical features, diagnosis and management of scorpion stings.
18. Write in detail about opioid dependence.

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**Code No. D-8374/PB**

# FACULTY OF PHARMACY

**Pharma. D (3 YDC) I Year (PB) (Main & Backlog) Examination, September 2022**

**Subject: Clinical Toxicology**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. What are the steps in general management of poisoning? Explain about antidote administration.
2. Enumerate the methods of elimination of poison. Explain about forced diuresis.
3. Write about diagnosis and management of radiation poisoning.
4. Write about clinical features and management of acute poisoning with benzodiazepines.
5. Define venom and write the clinical effects of snake venom.
6. Write about management of chronic poisoning with copper.
7. Write about prevention and control of mycotoxin poisoning.
8. Write short notes on venomous arthropods.
9. Define drug dependence, drug abuse. Write about general management of drug dependence.
10. Discuss about treatment of amphetamine dependence.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain in detail about gut decontamination.
12. Discuss about clinical features, diagnosis and management of acute poisoning of organophosphate.
13. Discus about clinical features, diagnosis and management of acute poisoning of methanol.
14. Discuss about clinical features, diagnosis and management of acute poisoning of arsenic.
15. Write brief notes on food poisoning.
16. Discuss about clinical features and management of snake bite.
17. Discuss about clinical features, diagnosis and management of scorpion stings.
18. Write in detail about opioid dependence.

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**Code No. D-8373**

# FACULTY OF PHARMACY

**Pharma. D (6 YDC) IV Year (Main & Backlog) Examination, September 2022**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Explain the factors that influence the gastric emptying rate.
2. Write a note on zero order kinetics.
3. Explain the applications of Pharmacokinetics.
4. Deduce the elimination rate constant in one compartment open model IV bolus dose administration.
5. Describe the principles of dosage regimen.
6. Write a note on loading dose and maintenance dose.
7. Write the advantages of Latin square design in bioequivalence experimental study.
8. Define Q value. What is the dissolution acceptance criteria as per USP?
9. Write a note on IVIVC.
10. Explain Statistical Moment theory.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain in detail with examples, the importance of pH partition theory to explain passive absorption of drugs.
12. Explain briefly mechanism of drug absorption in G.I.T.
13. Explain in detail the chemical pathways of drug metabolism.
14. How do you obtain different pharmacokinetic parameters following intravenous infusion administration of a drug that confers one compartment open model characteristics?
15. Derive the equations for calculating $C_{max,}$ and $C_{min}$ following repeated IV injections.
16. Explain Michaelis Menten equation along with estimation of $K_m$ and $V_{max}$.

..2

17. Explain in detail various methods of assessment of Bioavailability.

18. A 50kg women was given a single IV dose of an antibacterial drug at a dose level of 6 mg/kg. Blood samples were taken at various time intervals. The concentration of the drug was determined in the plasma fraction of each blood sample and the following data were obtained. Assume that the drug follows one compartment open model. Calculate all possible pharmacokinetic parameters.

| Time (Hrs) | 0.25 | 0.5 | 1 | 3 | 6 | 12 | 18 |
|---|---|---|---|---|---|---|---|
| Concentration (mg/L) | 8.21 | 7.87 | 7.23 | 5.15 | 3.09 | 1.11 | 0.4 |

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**Code No. D-8373/PB**

# FACULTY OF PHARMACY

**Pharma. D (3 YDC) I Year (PB) (Main & Backlog) Examination, September 2022**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Explain the factors that influence the gastric emptying rate.
2. Write a note on zero order kinetics.
3. Explain the applications of Pharmacokinetics.
4. Deduce the elimination rate constant in one compartment open model IV bolus dose administration.
5. Describe the principles of dosage regimen.
6. Write a note on loading dose and maintenance dose.
7. Write the advantages of Latin square design in bioequivalence experimental study.
8. Define Q value. What is the dissolution acceptance criteria as per USP?
9. Write a note on IVIVC.
10. Explain Statistical Moment theory.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain in detail with examples, the importance of pH partition theory to explain passive absorption of drugs.
12. Explain briefly mechanism of drug absorption in G.I.T.
13. Explain in detail the chemical pathways of drug metabolism.
14. How do you obtain different pharmacokinetic parameters following intravenous infusion administration of a drug that confers one compartment open model characteristics?
15. Derive the equations for calculating $C_{max,}$ and $C_{min}$ following repeated IV injections.
16. Explain Michaelis Menten equation along with estimation of $K_m$ and $V_{max}$.

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17. Explain in detail various methods of assessment of Bioavailability.

18. A 50kg women was given a single IV dose of an antibacterial drug at a dose level of 6 mg/kg. Blood samples were taken at various time intervals. The concentration of the drug was determined in the plasma fraction of each blood sample and the following data were obtained. Assume that the drug follows one compartment open model. Calculate all possible pharmacokinetic parameters.

| Time (Hrs) | 0.25 | 0.5 | 1 | 3 | 6 | 12 | 18 |
|---|---|---|---|---|---|---|---|
| Concentration (mg/L) | 8.21 | 7.87 | 7.23 | 5.15 | 3.09 | 1.11 | 0.4 |

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**Code No. D-8372**

# FACULTY OF PHARMACY

**Pharma. D (6 YDC) IV Year (Main & Backlog) Examination, September 2022**

**Subject: Biostatistics and Research Methodology**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Explain errors in sampling.
2. Define the term Bias in clinical study.
3. Explain the term Research and Research Methodology.
4. Explain the term standard deviation.
5. Define discrete and continuous variables.
6. Define histogram.
7. Define attributable risk and relative risk.
8. Write the advantages of computerized Literature Retrieval.
9. Define the term mode. Find the mode of following data
   0, 0, 0, 1, 2, 2, 1, 1, 1, 1, 2, 3, 3.
10. What is carry-over effect?

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain ONE WAY ANNOVA with suitable example.
12. (a) Write short note on Epi info.
    (b) Write a detail note on drug information storage and retrieval.
13. Find the Coefficient of Correlation between the variables X and Y using Karl Pearson's method.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| X | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
| Y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

14. Explain in detail types of observational study designs.

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15. (a) Define Epidemiology. Write brief note on incidence and prevalence.
    (b) Explain in detail role of computers in hospital pharmacy.

16. The students of college were segregated according to height in a college. Calculate mean, variance and standard deviation for the given data:-

| Height (cm) | 135-140 | 141-145 | 146-150 | 151-155 | 156-160 | 161-165 | 166-170 |
|---|---|---|---|---|---|---|---|
| Frequency | 8 | 12 | 18 | 22 | 20 | 14 | 10 |

17. (a) Discuss different methods of sampling.
    (b) Explain types of correlation and correlation coefficient with suitable example.
18. (a) Explain Box plot construction step by step.
    (b) Distribution of admitted patients according to symptoms is given. Draw a pie chart to explain the data

| Symptoms | Number of Patients |
|---|---|
| Cough & Cold | 25 |
| Body pain | 10 |
| Fever | 15 |
| Tachycardia | 08 |
| Anorexia | 02 |

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**Code No. D-8372/PB**

# FACULTY OF PHARMACY

**Pharma. D (3 YDC) I Year (PB) (Main & Backlog) Examination, September 2022**

**Subject: Biostatistics and Research Methodology**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1. Explain errors in sampling.
2. Define the term Bias in clinical study.
3. Explain the term Research and Research Methodology.
4. Explain the term standard deviation.
5. Define discrete and continuous variables.
6. Define histogram.
7. Define attributable risk and relative risk.
8. Write the advantages of computerized Literature Retrieval.
9. Define the term mode. Find the mode of following data
   0, 0, 0, 1, 2, 2, 1, 1, 1, 1, 2, 3, 3.
10. What is carry-over effect?

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11. Explain ONE WAY ANNOVA with suitable example.
12. (a) Write short note on Epi info.
    (b) Write a detail note on drug information storage and retrieval.
13. Find the Coefficient of Correlation between the variables X and Y using Karl Pearson's method.

| X | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
|---|---|---|---|---|---|---|---|---|
| Y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

14. Explain in detail types of observational study designs.

**Code No. D-8372/PB**



15. (a) Define Epidemiology. Write brief note on incidence and prevalence.
    (b) Explain in detail role of computers in hospital pharmacy.

16. The students of college were segregated according to height in a college. Calculate mean, variance and standard deviation for the given data:-

| Height (cm) | 135-140 | 141-145 | 146-150 | 151-155 | 156-160 | 161-165 | 166-170 |
|---|---|---|---|---|---|---|---|
| Frequency | 8 | 12 | 18 | 22 | 20 | 14 | 10 |

17. (a) Discuss different methods of sampling.
    (b) Explain types of correlation and correlation coefficient with suitable example.
18. (a) Explain Box plot construction step by step.
    (b) Distribution of admitted patients according to symptoms is given. Draw a pie chart to explain the data

| Symptoms | Number of Patients |
|---|---|
| Cough & Cold | 25 |
| Body pain | 10 |
| Fever | 15 |
| Tachycardia | 08 |
| Anorexia | 02 |

* * *

**Code No. D-8041**

# FACULTY OF PHARMACY

**Pharma. D IV Year (6-YDC) (Instant) Examination, May / June 2022**

**Subject: Pharmacotherapeutics - III**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1 Write about the etiology of migraine headache
2 What are the causes of Backwash ileitis
3 Write a brief note on Sickle cell Anaemia
4 Explain about the maintenance of Remission in IBD
5 Write the pharmacological management of Obstructive sleep disorder
6 Write about the management of Narcolepsy
7 Classify types of stroke based on the mechanism
8 Write about the pharmacological management of Alzheimer's disease
9 Define early virologic response and sustained virologic response seen in HCV
10 Differentiate ulcerative colitis & crohn's disease

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11 (a) Write about the etiology & risk factors for peptic ulcer disease.
(b) Write about the management of the PUD.
12 (a) Write about the patterns of Drug induced liver disorders.
(b) Write briefly about Alcoholic liver disease & its management.
13 Discuss in detail about the etiopathogenesis & management of stroke.
14 Discuss briefly about types of Anaemia's & explain the role of parenteral Iron supplements in management of Iron deficiency Anaemia.
15 (a) Write the staging of Parkinson's according to Hoehn and yahr scale.
(b) Write in detail about the role of carbidopa/levodopa & its motor complications in the management of Parkinson's disease.
16 (a) What are the different types of Bipolar disorders.
(b) Discuss the management of Generalized Anxiety disorder.
17 (a) Write briefly about any two drug induced blood disorders.
(b) Discuss in detail about heparin induced thrombocytopenia and its management.
18 Explain in detail about Evidence Based medicine & explain the steps involved in applying the evidence based medicine process in pharmacotherapeutic decision.

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**Code No. D-8041/PB**

# FACULTY OF PHARMACY

**Pharma. D I Year (3 YDC) (Post-Baccalaureate) (Instant) Examination,**
**May / June 2022**
**Subject: Pharmacotherapeutics - III**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1 Write about the etiology of migraine headache
2 What are the causes of Backwash ileitis
3 Write a brief note on Sickle cell Anaemia
4 Explain about the maintenance of Remission in IBD
5 Write the pharmacological management of Obstructive sleep disorder
6 Write about the management of Narcolepsy
7 Classify types of stroke based on the mechanism
8 Write about the pharmacological management of Alzheimer's disease
9 Define early virologic response and sustained virologic response seen in HCV
10 Differentiate ulcerative colitis & crohn's disease

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11 (a) Write about the etiology & risk factors for peptic ulcer disease.
(b) Write about the management of the PUD.
12 (a) Write about the patterns of Drug induced liver disorders.
(b) Write briefly about Alcoholic liver disease & its management.
13 Discuss in detail about the etiopathogenesis & management of stroke.
14 Discuss briefly about types of Anaemia's & explain the role of parenteral Iron supplements in management of Iron deficiency Anaemia.
15 (a) Write the staging of Parkinson's according to Hoehn and yahr scale.
(b) Write in detail about the role of carbidopa/levodopa & its motor complications in the management of Parkinson's disease.
16 (a) What are the different types of Bipolar disorders.
(b) Discuss the management of Generalized Anxiety disorder.
17 (a) Write briefly about any two drug induced blood disorders.
(b) Discuss in detail about heparin induced thrombocytopenia and its management.
18 Explain in detail about Evidence Based medicine & explain the steps involved in applying the evidence based medicine process in pharmacotherapeutic decision.

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**Code No. D-8045**

# FACULTY OF PHARMACY

**Pharm. D IV Year (6-YDC) (Instant) Examination, May 2022**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1 Explain the Noyes-Whitney's equation.
2 Write a note on binding of drugs to Human Serum Albumin (HAS).
3 Write a short note on endocytosis.
4 Write the differences between zero order and first order kinetics.
5 Show that C = $C_{SS}$ (One compartment open model IV infusion).
6 Write various methods to calculate area under curve.
7 Write a note on accumulation factor, Loss Factor and Persistence factor.
8 What are the causes for the Nonlinearity?
9 Write a note on statistical moment theory.
10 Write various pharmacodynamics methods for assessing bioavailability.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11 Explain in detail about mechanism of drug absorption in G.I.T.

12 Explain Biological factors affecting drug absorption.

13 How do you determine binding constants and binding sites by graphical methods?

14 How do you obtain different pharmacokinetic parameters following intravenous bolus administration of a drug that confers two compartment open model characteristics?

15 Describe the pharmacokinetics concept involved in repetitive injection in one compartment open model.

16 Explain in detail about noncompartmental pharmacokinetics.

17 Elaborate the various methods of improving bioavailability of poorly soluble drugs.

18 A dose of 184 mg of drug is given intravenously to a healthy volunteer and the following blood data was obtained. Assume that the drug follows one compartment open model. Calculate all possible pharmacokinetic parameters.

| Time(Hrs) | 1 | 6 | 12 | 24 | 48 | 72 | 96 | 144 |
|---|---|---|---|---|---|---|---|---|
| Concentration(mg/L) | 137 | 120 | 103 | 76 | 42 | 23 | 12 | 3.7 |

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**Code No. D-8045/PB**

# FACULTY OF PHARMACY

**Pharm. D I Year (3-YDC) (Instant) (Post-Baccalaureate) Examination, May 2022**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1 Explain the Noyes-Whitney's equation.
2 Write a note on binding of drugs to Human Serum Albumin (HAS).
3 Write a short note on endocytosis.
4 Write the differences between zero order and first order kinetics.
5 Show that C = $C_{SS}$ (One compartment open model IV infusion).
6 Write various methods to calculate area under curve.
7 Write a note on accumulation factor, Loss Factor and Persistence factor.
8 What are the causes for the Nonlinearity?
9 Write a note on statistical moment theory.
10 Write various pharmacodynamics methods for assessing bioavailability.

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11 Explain in detail about mechanism of drug absorption in G.I.T.

12 Explain Biological factors affecting drug absorption.

13 How do you determine binding constants and binding sites by graphical methods?

14 How do you obtain different pharmacokinetic parameters following intravenous bolus administration of a drug that confers two compartment open model characteristics?

15 Describe the pharmacokinetics concept involved in repetitive injection in one compartment open model.

16 Explain in detail about noncompartmental pharmacokinetics.

17 Elaborate the various methods of improving bioavailability of poorly soluble drugs.

18 A dose of 184 mg of drug is given intravenously to a healthy volunteer and the following blood data was obtained. Assume that the drug follows one compartment open model. Calculate all possible pharmacokinetic parameters.

| Time(Hrs) | 1 | 6 | 12 | 24 | 48 | 72 | 96 | 144 |
|---|---|---|---|---|---|---|---|---|
| Concentration(mg/L) | 137 | 120 | 103 | 76 | 42 | 23 | 12 | 3.7 |

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Code No. D-8044

# FACULTY OF PHARMACY

**Pharm. D IV Year (6-YDC) (Instant) Examination, May 2022**

**Subject: Biostatistics and Research Methodology**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1 Explain the term power of study.
2 Calculate Mean and Median from the following data.

| X | 2 | 4 | 6 | 8 | 10 | 12 | 14 |
|---|---|---|---|---|---|---|---|

3 Write applications of semi-Logarithmic plot.
4 What is Type I and Type II error in hypothesis testing?
5 Define median and write its importance.
6 Define relative risk and attributable risk.
7 Define hypothesis. What are different types of hypothesis?
8 Define prevalence and incidence.
9 Explain in brief about primary data.
10 What are scatter plots?

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11 Describe the role of computers.
(a) In patient record data base management.
(b) Inventory control in hospital pharmacy.

12 Explain Two Way ANOVA in detail with suitable example.

13 Describe in detail the different types of clinical study designs.

14 (a) A hospital evaluated the epidemiology of Type-2 diabetes with 40,000 OPD patients during 2019 and 2020. The information they collected is as shown below. Find out the incidence and prevalence of Type 2 diabetes. (Note- there is no death or reversal of diabetes during 2019-2020).

| Year | No. of Patients with Diabetes | Total No. of Patients visited OPD |
|---|---|---|
| 2019 | 1780 | 39640 |
| 2020 | 1826 | 40000 |

(b) Write a procedure for report writing in research methodology.

15 (a) Find the Coefficient of Correlation between the variables X and Y using Karl Pearson's method.

| X | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
|---|---|---|---|---|---|---|---|---|
| Y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

..2

(b) The following data shows the marks scored by student in tests conducted by university. Express data by using Pie chart.

| Test | Test-1 | Test-2 | Test-3 | Test-4 | Test-5 |
|---|---|---|---|---|---|
| Marks | 70 | 85 | 76 | 88 | 92 |

16 Calculate the standard error mean for following da ta:

| Class Interval | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 |
|---|---|---|---|---|---|---|---|---|
| Frequency | 2 | 10 | 22 | 25 | 25 | 22 | 10 | 2 |

17 A die rolled 100 times showed the following results, find out whether the die is uniform at a level of significance 0.01($x^2$-2.089)

| Number | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|---|---|---|---|---|---|---|---|
| Observed frequency | 17 | 20 | 14 | 15 | 17 | 17 | 100 |

18 (a) Write a brief note on SPSS.
(b) Give a detailed account of sample size determination.

****

Code No. D-8044/PB

# FACULTY OF PHARMACY

**Pharm. D I Year (3-YDC) (Instant) (Post-Baccalaureate) Examination, May 2022**

**Subject: Biostatistics and Research Methodology**

**Time: 3 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer all the questions.** **(10 x 2 = 20 Marks)**

1 Explain the term power of study.
2 Calculate Mean and Median from the following data.

| X | 2 | 4 | 6 | 8 | 10 | 12 | 14 |
|---|---|---|---|---|---|---|---|

3 Write applications of semi-Logarithmic plot.
4 What is Type I and Type II error in hypothesis testing?
5 Define median and write its importance.
6 Define relative risk and attributable risk.
7 Define hypothesis. What are different types of hypothesis?
8 Define prevalence and incidence.
9 Explain in brief about primary data.
10 What are scatter plots?

## PART – B

**Note: Answer any five questions.** **(5 x 10 = 50 Marks)**

11 Describe the role of computers.
(a) In patient record data base management.
(b) Inventory control in hospital pharmacy.

12 Explain Two Way ANOVA in detail with suitable example.

13 Describe in detail the different types of clinical study designs.

14 (a) A hospital evaluated the epidemiology of Type-2 diabetes with 40,000 OPD patients during 2019 and 2020. The information they collected is as shown below. Find out the incidence and prevalence of Type 2 diabetes. (Note- there is no death or reversal of diabetes during 2019-2020).

| Year | No. of Patients with Diabetes | Total No. of Patients visited OPD |
|---|---|---|
| 2019 | 1780 | 39640 |
| 2020 | 1826 | 40000 |

(b) Write a procedure for report writing in research methodology.

15 (a) Find the Coefficient of Correlation between the variables X and Y using Karl Pearson's method.

| X | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
|---|---|---|---|---|---|---|---|---|
| Y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

..2

(b) The following data shows the marks scored by student in tests conducted by university. Express data by using Pie chart.

| Test | Test-1 | Test-2 | Test-3 | Test-4 | Test-5 |
|---|---|---|---|---|---|
| Marks | 70 | 85 | 76 | 88 | 92 |

16 Calculate the standard error mean for following da ta:

| Class Interval | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 |
|---|---|---|---|---|---|---|---|---|
| Frequency | 2 | 10 | 22 | 25 | 25 | 22 | 10 | 2 |

17 A die rolled 100 times showed the following results, find out whether the die is uniform at a level of significance 0.01($x^2$-2.089)

| Number | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|---|---|---|---|---|---|---|---|
| Observed frequency | 17 | 20 | 14 | 15 | 17 | 17 | 100 |

18 (a) Write a brief note on SPSS.
(b) Give a detailed account of sample size determination.

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Code No. D-8043

# FACULTY OF PHARMACY

**Pharm. D IV - Year (6 YDC) (Instant) Examination, May 2022**

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions:** **(10 x 2 = 20 Marks)**

1 Define clinical pharmacy.
2 What is the significance of Drug therapy monitoring?
3 Classify different types of Adverse drug reaction.
4 Describe term 'Pharmacovigilance'.
5 Describe term 'Medication History'.
6 Explain verbal and nonverbal communication skills required for patient counselling.
7 Write a short notes on Drug Information resources.
8 Define Medication error.
9 Define Patient compliance.
10 Define glomerular filtration rate and give its normal value.

## PART - B

**Note: Answer any five questions:** **(5 x 10 = 50 Marks)**

11 (a) Explain the development and scope of clinical pharmacy.
(b) What is the importance of patient case history in the evaluation of drug Therapy?

12 Explain the pharmaceutical care concepts.

13 (a) Describe the steps involved in conducting a DUE.
(b) Write a short notes on ward round participation.

14 (a) Explain liver function tests.
(b) Explain Renal function tests.

15 Explain the systematic approach in answering drug information queries.

16 Explain different types of medication errors and describe steps taken by a clinical pharmacist to reduce medication errors.

17 (a) Write a note on Assessment of causality of ADR's.
(b) What are the functions and objectives of Poison information?

18 (a) Explain tests associated with cardiac disorders.
(b) Describe the role of pharmacist in management of ADR.

*****

Code No. D-8043/PB

# FACULTY OF PHARMACY

**Pharm. D I Year (3 YDC) (Post Baccalaureate) (Instant) Examination, May 2022**

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions:** **(10 x 2 = 20 Marks)**

1 Define clinical pharmacy.
2 What is the significance of Drug therapy monitoring?
3 Classify different types of Adverse drug reaction.
4 Describe term 'Pharmacovigilance'.
5 Describe term 'Medication History'.
6 Explain verbal and nonverbal communication skills required for patient counselling.
7 Write a short notes on Drug Information resources.
8 Define Medication error.
9 Define Patient compliance.
10 Define glomerular filtration rate and give its normal value.

## PART - B

**Note: Answer any five questions:** **(5 x 10 = 50 Marks)**

11 (a) Explain the development and scope of clinical pharmacy.
(b) What is the importance of patient case history in the evaluation of drug Therapy?

12 Explain the pharmaceutical care concepts.

13 (a) Describe the steps involved in conducting a DUE.
(b) Write a short notes on ward round participation.

14 (a) Explain liver function tests.
(b) Explain Renal function tests.

15 Explain the systematic approach in answering drug information queries.

16 Explain different types of medication errors and describe steps taken by a clinical pharmacist to reduce medication errors.

17 (a) Write a note on Assessment of causality of ADR's.
(b) What are the functions and objectives of Poison information?

18 (a) Explain tests associated with cardiac disorders.
(b) Describe the role of pharmacist in management of ADR.

*****

**Code No. D-8046**

# FACULTY OF PHARMACY

**Pharm. D IV-Year (6 YDC) (Instant) Examination, May 2022**

**Subject: Clinical Toxicology**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all questions: (10 x 2 = 20 Marks)**

1 What is tobacco amblyopia? Write the signs and symptoms of tobacco dependence.
2 Define toxicokinetics.
3 Write a note on arterial gases.
4 What are the signs and symptoms of amphetamine abuse?
5 What are caustics and mention any two examples of each?
6 Write a note on carbamate poisoning.
7 Define antidote and mention at least two examples.
8 List out clinical features for paracetamol overdose.
9 Write the management of radiation poisoning.
10 What are hallucinogens? Mention clinical features of its overdose.

## PART - B

**Note: Answer any five questions: (5 x 10 = 50 Marks)**

11 Explain general principles involved in the management of poisoning.

12 (a) Discuss the clinical features and management of acute pesticide poisoning.
(b) Write a note on activated charcoal.

13 (a) Describe the management of tricyclic antidepressant poisoning.
(b) Write a note on overdose of NSAIDs.

14 (a) Classify poisonous snakes. Discuss the management of viper poisoning.
(b) Give a brief note on mushrooms.

15 (a) Describe the management of mercury poisoning.
(b) Discuss the investigations in petroleum toxicity.

16 Differentiate the acute and chronic poisoning of:
(a) Hallucinogens
(b) Morphine

17 (a) Explain clinical applications of antidotes in detail.
(b) Enumerate the clinical features and complications of fungal food poisoning.

18 Give a detailed note on:
(a) cannabis abuse
(b) Tobacco abuse.

*****

**Code No. D-8046/PB**

# FACULTY OF PHARMACY

**Pharm. D I-Year (3 YDC) (Post Baccalaureate) (Instant) Examination, May 2022**

**Subject: Clinical Toxicology**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all questions:** **(10 x 2 = 20 Marks)**

1 What is tobacco amblyopia? Write the signs and symptoms of tobacco dependence.
2 Define toxicokinetics.
3 Write a note on arterial gases.
4 What are the signs and symptoms of amphetamine abuse?
5 What are caustics and mention any two examples of each?
6 Write a note on carbamate poisoning.
7 Define antidote and mention at least two examples.
8 List out clinical features for paracetamol overdose.
9 Write the management of radiation poisoning.
10 What are hallucinogens? Mention clinical features of its overdose.

## PART - B

**Note: Answer any five questions:** **(5 x 10 = 50 Marks)**

11 Explain general principles involved in the management of poisoning.

12 (a) Discuss the clinical features and management of acute pesticide poisoning.
(b) Write a note on activated charcoal.

13 (a) Describe the management of tricyclic antidepressant poisoning.
(b) Write a note on overdose of NSAIDs.

14 (a) Classify poisonous snakes. Discuss the management of viper poisoning.
(b) Give a brief note on mushrooms.

15 (a) Describe the management of mercury poisoning.
(b) Discuss the investigations in petroleum toxicity.

16 Differentiate the acute and chronic poisoning of:
(a) Hallucinogens
(b) Morphine

17 (a) Explain clinical applications of antidotes in detail.
(b) Enumerate the clinical features and complications of fungal food poisoning.

18 Give a detailed note on:
(a) Cannabis abuse
(b) Tobacco abuse.

*****

**Code No. D-8042**

# FACULTY OF PHARMACY

**Pharm. D IV-Year (6 YDC) (Instant) Examination, May 2022**

**Subject: Hospital Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions:** **(10 x 2 = 20 Marks)**

1 Write a note on organization of a hospital.
2 Write about Hospital formulary.
3 What is the importance of Hospital pharmacy newsletters?
4 Write short notes on ABC Analysis.
5 Write about Unit dose drug distribution method.
6 Write a short notes on manufacturing creams.
7 Define Budget.
8 Define Hospital Pharmacy.
9 Write short notes on pharmacy therapeutic committee.
10 Explain major functions of Hospital.

## PART - B

**Note: Answer any five questions:** **(5 x 10 = 50 Marks)**

11 Explain the professional relation of Hospital pharmacist with other professionals.

12 Write about the significance of continuing professional development programs in Hospital.

13 Define PTC and give its composition and detailed account on its role in Hospital pharmacy.

14 Write a note on preparation of budget of a hospital pharmacy.

15 (a) Write about organization of Hospital pharmacy unit in a hospital.
(b) Explain role and responsibilities of Hospital pharmacist.

16 (a) Explain manufacture of ointments.
(b) Explain Total parenteral nutrition.

17 Explain Handling and packaging of Radio pharmaceuticals.

18 (a) Explain the role of pharmacist in central sterile supply services.
(b) Explain the distribution of Narcotics and other controlled substances.

*****

**Code No. D-8042/PB**

# FACULTY OF PHARMACY

**Pharm. D I-Year (3 YDC) (Post Baccalaureate) (Instant) Examination, May 2022**

**Subject: Hospital Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

## PART - A

**Note: Answer all the questions:** **(10 x 2 = 20 Marks)**

1 Write a note on organization of a hospital.
2 Write about Hospital formulary.
3 What is the importance of Hospital pharmacy newsletters?
4 Write short notes on ABC Analysis.
5 Write about Unit dose drug distribution method.
6 Write a short notes on manufacturing creams.
7 Define Budget.
8 Define Hospital Pharmacy.
9 Write short notes on pharmacy therapeutic committee.
10 Explain major functions of Hospital.

## PART - B

**Note: Answer any five questions:** **(5 x 10 = 50 Marks)**

11 Explain the professional relation of Hospital pharmacist with other professionals.

12 Write about the significance of continuing professional development programs in Hospital.

13 Define PTC and give its composition and detailed account on its role in Hospital pharmacy.

14 Write a note on preparation of budget of a hospital pharmacy.

15 (a) Write about organization of Hospital pharmacy unit in a hospital.
(b) Explain role and responsibilities of Hospital pharmacist.

16 (a) Explain manufacture of ointments.
(b) Explain Total parenteral nutrition.

17 Explain Handling and packaging of Radio pharmaceuticals.

18 (a) Explain the role of pharmacist in central sterile supply services.
(b) Explain the distribution of Narcotics and other controlled substances.

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Code No. 12467

# FACULTY OF PHARMACY

**Pharm. D IV-Year (6 YDC) (Main & Backlog) Examination, October 2021**

**Subject: Hospital Pharmacy**

**Time: 2 Hours** **Max. Marks: 70**

**Note: Answer any six questions from Part-A. Answer any four questions from Part-B.**

## PART- A (6x5=30 Marks)

1 Define Hospital
2 Define Hospital pharmacy
3 Define Budget
4 What is the importance of Hospital pharmacy newsletter?
5 What is unit dose drug distribution?
6 Explain the role of pharmacist in central sterile supply services.
7 Write a brief note on Total parenteral nutrition.
8 Write short notes on manufacturing of creams.
9 Write about Hospital formulary.
10 Explain the major functions of Hospital.

## PART- B (4x10=40 Marks)

11 Define inventory control and explain various methods of inventory control ABC, VED, EOQ, lead time, safety stock.

12 Explain professional relation of Hospital pharmacist with other professionals.

13 Explain Budget preparation and implementation.

14 Write a short notes on Hospital committees.
(a) infection committee
(b) Research ethical committee

15 Explain the significance of continuing professional development programs in a Hospital.

16 Explain Handling and packaging of Radiopharmaceuticals.

17 Explain manufacture of ointments, liquids, and granules.

18 (a) Explain the organization of Hospital pharmacy.
(b) Explain roles and responsibilities of Hospital pharmacist.

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**Code No. 12466**

# FACULTY OF PHARMACY

**Pharma. D IV Year (6-YDC) (Main & Backlog) Examination, October 2021**
**Subject: Pharmacotherapeutics – III**

**Time: 2 Hours** **Max. Marks: 70**

**Note: Answer any six questions from Part A, Answer any four questions from Part B.**

***PART – A (6 x 5 = 30 Marks)***

1 Explain about diagnostic criteria for Ischemic stroke
2 Discuss in detail about the etiology & prevention of Hepatitis B
3 Classify anti psychotic agents with examples
4 Discuss in detail about the diagnostic criteria for Epilepsy
5 Write a note on use of triptans in migraine
6 Write about Zollinger Ellision's syndrome
7 Write a brief note on different scales for rating pain
8 Write the clinical presentation of viral Hepatitis
9 Differentiate tension and cluster headaches
10 Write a short note on Venous Thromboembolism

***PART – B (4 x 10 = 40 Marks)***

11 (a) Discuss briefly about the etiopathogenesis of GERD.
(b) Represent pharmacological management of GERD with an algorithm.
12 (a) Classify Antipsychotic agents with examples.
(b) Explain in detail about adverse effects of antipsychotic agents used in the management of Schizophrenia.
13 Define evidence based medicine & write briefly about the significance of validity and the types of bias in evidence based medicine.
14 (a) Explain in detail about etiopathogenesis Alcoholic liver disease.
(b) Write a note on any one drug induced blood disorder.
15 (a) Write in detail about the etiopathogenesis & management of Crohn's disease.
(b) Write a brief note on Hepato renal syndrome.
16 Write a brief note on Anxiety rating scales & write about the role of Benzodiazepines in Generalized anxiety disorders along with its adverse effects.
17 Explain in detail about the etiology, prevention & pharmacological management of Hepatitis B & Write a note on vaccines for Hepatitis B.
18 (a) Discuss in detail about the diagnostic parameters of Anaemia.
(b) Write a brief note on Haemolytic Anaemia.

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**Code No. 12471**

# FACULTY OF PHARMACY

**Pharm. D IV-Year (6 YDC) (Main & Backlog) Examination, October 2021**

**Subject: Clinical Toxicology**

**Time: 2 Hours** **Max. Marks: 70**

**Note: Answer any six questions from Part-A. Answer any four questions from Part-B.**

## PART- A (6x5=30 Marks)

1 Write a note on arthropod strings.
2 List the clinical features in cannabis poisoning.
3 Write a note on food poisoning.
4 Explain antidote administration in ethanol poisoning.
5 What is antidote? Explain.
6 Write the symptoms and complications of snake bite.
7 What is salicylism? Write the management of salicylate overdose.
8 What is elimination enhancement?
9 Write a note on management of lead poisoning.
10 What are common modes of antidote administration?

## PART- B (4x10=40 Marks)

11 (a) Discuss in detail about gut decontamination.
(b) Explain the role of toxicokinetics in the management of poisoning.

12 Describe the clinical features and management of paracetamol poisoning and add a note on acetyl cysteine.

13 Explain in detail about clinical features and management of iron toxicity.

14 (a) Discuss radiation poisoning in detail.
(b) How to manage PEG toxicity?

15 (a) Enumerate the clinical features of mycotoxin poisoning.
(b) Write the management barbiturates.

16 (a) Discuss the clinical features of opioid abuse.
(b) Write a note on alkali poisoning.

17 (a) Classify poisonous mushrooms. Write in detail about mushroom poisoning.
(b) Give a note on supportive care.

18 (a) Enumerate the clinical features of HCl toxicity and discuss its management.
(b) Write a note on clinical features of hallucinogens.

**Code No. 12470**

# FACULTY OF PHARMACY

**Pharm.D IV Year (6-YDC) (Main & Backlog) Examination, October 2021**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 2 Hours** **Max. Marks: 70**

**PART – A**

**Note: Answer any six questions.** **(6 x 5 = 30 Marks)**

1 Explain about apparent volume of distribution and its significance.
2 Explain about the significance of protein binding of drugs.
3 Write a note on Phase I reactions.
4 Explain about BCS (Biopharmaceutical Classification System).
5 Write a note on mammillary model.
6 Define bioavailability. Write a note on absolute bioavailability and relative bioavailability.
7 Explain about transfer constants and hybrid first order constants in two compartment open model IV Bolus administration.
8 Write a note on dose ratio and principle of superposition.
9 Explain about Latin square design in bioequivalent study.
10 Write a note on mean residence time (MRT) for one compartment model.

**PART – B**

**Note: Answer any four questions.** **(4 x 10 = 40 Marks)**

11 Define drug absorption. Explain the various factors influencing GI absorption of a drug.
12 Define the term biotransformation. Explain Phase II reactions with suitable examples.
13 Define Pharmacokinetics. Explain in detail about various methods/models used for analysis of pharmacokinetic data.
14 How do you obtain different pharmacokinetic parameters following intravenous bolus administration of a drug that confers one compartment open model characteristics?
15 Explain in detail about multiple dosage regimen kinetics.
16 Explain in detail about bioequivalence study protocol.
17 Define Nonlinear Pharmacokinetics. Explain Michaelis Menten equation with respect to the estimation of Km and Vmax.
18 A drug was administered by rapid IV injection to a 70 kg male adult. Blood samples were withdrawn over a period of 7 hours and the following blood data was obtained. Assume that the drug follows two compartment open model. Calculate A, $\alpha$ (alpha), $\beta$ (beta), $K_E$, $K_{12}$ and $K_{21}$.

| Time (Hrs.) | 0 | 0.25 | 0.5 | 0.75 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Concentration (mg/L) | 70 | 53.8 | 43.3 | 35 | 29.1 | 21.2 | 17 | 14.3 | 12.6 | 10.5 | 9 | 8 | 7 |

**Code No. 12469**

# FACULTY OF PHARMACY

**Pharm.D IV Year (6-YDC) (Main & Backlog) Examination, October 2021**

**Subject: Biostatistics and Research Methodology**

**Time: 2 Hours** **Max. Marks: 70**

## PART – A

**Note: Answer any six questions.** **(6 x 5 = 30 Marks)**

1 Explain point prevalence and period prevalence.
2 Explain secondary data with example.
3 Define Two Tailed test.
4 Define and explain the significance of confidence interval.
5 Explain scatter plot.
6 Explain Null Hypothesis.
7 Define Level of Significance and power of study.
8 Enumerate the advantages of graphical representation of data.
9 Define median with suitable example.
10 Find mean and mode of following data;

| X | 17 | 13 | 15 | 17 | 18 | 10 | 17 | 14 |
|---|---|---|---|---|---|---|---|---|

## PART – B

**Note: Answer any four questions.** **(4 x 10 = 40 Marks)**

11 Explain One Way ANOVA with suitable example.

12 (a) Explain the steps involved in construction of box plot.
(b) Write a short note on histogram construction.

13 Write a note on:
(a) Computer application in hospital pharmacy.
(b) Computer application for pharmaceutical care in community pharmacy.

14 (a) Write a detail note on SAS software.
(b) Find the mean, standard deviation, variance, coefficient of variation and range of following data obtained from clinical study conducted in hospital for post meal blood sugar in diabetes patients.

| 165 | 90 | 135 | 125 | 105 | 135 | 165 | 155 | 115 | 110 |
|---|---|---|---|---|---|---|---|---|---|

15 (a) Write a detail note on drug information storage and retrieval.
(b) The table given below shows the data obtained during outbreak of smallpox:

| | Attacked | Not attacked | Total |
|---|---|---|---|
| Vaccinated | 31 | 469 | 500 |
| Not vaccinated | 185 | 1315 | 1500 |
| Total | 216 | 1784 | 2000 |

Test the effectiveness of vaccination in preventing outbreak. Test your results with the help of $x^2$ at 5% level of significance (Table value of $x^2$ at level of significance 5% is 3.841)

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16 (a) Explain Research and Research Methodology.
(b) Distribution of patients according to blood group is given below, express data by using Pie chart.

| Blood group | Number of patients |
|---|---|
| A | 43 |
| B | 37 |
| AB | 14 |
| O | 6 |

17 Explain in detail about Paired and Unpaired t test with suitable example.

18 Write a detail essay on clinical study designs.

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Code No. 12468

# FACULTY OF PHARMACY

**Pharm.D IV-Year (6 YDC) (Main & Backlog) Examination, October 2021**

**Subject: Clinical Pharmacy**

**Time: 2 Hours** **Max. Marks: 70**

**Note: Answer any six questions from Part-A. Answer any four questions from Part-B.**

## PART- A (6x5=30 Marks)

1 Write a note on scope of clinical pharmacy.
2 What are the Drug information resources required by a poison information center?
3 Define pharmacovigilance.
4 Define Medication error.
5 Define Patient compliance.
6 Define Glomerular filtration rate and give its normal value.
7 Write a short notes on fluid and electrolyte balance.
8 Write a short notes on Drug information Resources.
9 What are the predisposing factors responsible for causing adverse drug reaction?
10 Explain verbal and non verbal skills required for patient counselling.

## PART- B (4x10=40 Marks)

11 Write short notes on:
(a) Use of the critical evaluation of biomedical literature.
(b) Patient counselling techniques.

12 Explain the pharmaceutical care concepts.

13 Discuss in detail various hematological tests and their significance in patient care.

14 Discuss in brief
(a) Barriers to patient counselling
(b) Types of medication errors and their prevention

15 Discuss in detail regarding the preparation of written and verbal reports for providing drug information.

16 Write a short notes on:
(a) Components of medication History (b) Drug utilization evaluation

17 (a) Write a note on Assessment of causality of ADR's.
(b) What are the functions and objectives of poison information centre?

18 (a) Define clinical pharmacy and explain development and scope of clinical pharmacy.
(b) What is the importance of patient case history in the evaluation of Drug therapy?

**Code No. 12180**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, July 2021**

**Subject: Hospital Pharmacy**

**Time: 2 hours** **Max. Marks: 70**

***Note: Answer any six questions from Part-A and any Four questions from Part-B.***

**Part – A (6 x 5 = 30 Marks)**

1. Define Hospital formulary system and write significance of Hospital formulary system.
2. Explain the terms (a) Emergency out patient (b) Ambulatory patient.
3. Give a note on Nuclear pharmacy.
4. Define powders. Explain any two types of powders.
5. Write the composition of Research and Ethics committee.
6. Define and classify hospital.
7. Define and discuss the functions of Drug Information Center.
8. Define Inventory control and write a note on lead time.
9. Define floor stock dispensing.
10. Explain the professional skills required for hospital pharmacist.

**Part – B (4 x 10 = 40 Marks)**

11. Write in detail the steps involved in procurement and ware housing of drugs in Hospital Pharmacy.
12. Define Radiopharmaceuticals. Explain the role of Pharmacist in handling and packaging of Radiopharmaceuticals.
13. Write about (a) Manufacturing of tablets.
    (b) Various methods of sterilization.
14. (a) Discuss the developing therapeutic guidelines in Hospital Pharmacy.
    (b) Explain the newsletter in Hospital Pharmacy communication.
15. Define Hospital pharmacy. Explain the layout of Hospital Pharmacy.
16. (a) Define PTC. What are the objectives of pharmacy and therapeutic committee.
    (b) Explain the role of pharmacist in PTC.
17. Write a note on drug distribution in (a) Individual prescription method.
    (b) Unit Dose.
18. (a) Write a note on VED analysis, EOQ and stock.
    (b) Explain the role of Pharmacist ion central sterile supply service.

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**Code No. 12179**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, July 2021**

**Subject: Pharmacotherapeutics - III**

**Time: 2 hours** **Max. Marks: 70**

***Note: Answer any six questions from Part-A and any Four questions from Part-B.***

**Part – A (6 x 5 = 30 Marks)**

1. Define Zollinger Ellison syndrome.
2. Classify different types of pain with examples.
3. Write about the different hepatitis viruses with their mode of transmission.
4. What are the causes of venous thromboembolism?
5. Write about Clinical presentation of a patient with migraine headache.
6. What are different types of sleep disorders and its causes?
7. Write about the different scales for rating depression.
8. Write about H.pylori induced Peptic ulcer.
9. Classify Anemia's based on morphology of RBC's.
10. Write the international classification of Epileptic Seizures.

**Part – B (4 x 10 = 40 Marks)**

11. (a) Write about the etiology and risk factors for Peptic ulcer disease.
    (b) Write about the pharmacotherapy to eradicate Helicobacter pylori.
12. List out the lifestyle modifications to manage GERD. Explain acid suppression therapy in management of GERD.
13. (a) Write a detail note on the steps to incorporate evidence based medicine in pharmacotherapeutic decision making.
    (b) Write briefly the significance of validity and the types of bias in evidenced based medicine.
14. (a) Write the clinical presentation of Parkinsonism.
    (b) Write the staging of Parkinson's according to Hoehn and Yahr scale.
15. (a) Explain in detail about heparin induced thrombocytopenia and its management.
    (b) Write about the uses and adverse effects of benzodiazepines in generalized anxiety disorder.
16. Explain in detail about pharmacologic strategies used for primary and secondary stroke prevention.
17. (a) Write briefly on any two drug induced blood disorders.
    (b) Write a brief note on Hemolytic Anemia.
18. (a) Represent an algorithm for the treatment of schizophrenia.
    (b) Explain the Adverse effects of antipsychotics used in management of Schizophrenia.

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**Code No. 12184**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, July 2021**

**Subject: Clinical Toxicology**

**Time: 2 hours** **Max. Marks: 70**

***Note: Answer any six questions from Part-A and any Four questions from Part-B.***

**Part – A (6 x 5 = 30 Marks)**

1. Mention the clinical features of methanol poisoning.
2. Write a note on antidote in the management of iron of poisoning.
3. Discuss the envenomation of arthropod poisoning.
4. Explain the role of decontamination in the general management of poisoning.
5. Define the terms drug abuse and drug dependence.
6. Write the clinical features of organochlorines.
7. Discuss the Antidote ror ethanol poisoning.
8. List out different poisonous snakes.
9. Define toxicokinetics.
10. Explain the management of CNS depressants.

**Part – B (4 x 10 = 40 Marks)**

11. Discuss the gut decontamination in general management of poisoning.
12. Discuss in detail about venomous snake poisoning.
13. Write a note on (a) supportive care in poisoning (b) Mycotoxin poisoning.
14. Enumerate the sign and symptoms and management of Petroleum products and PEG poisoning.
15. Describe the clinical features and management of lead and mercury poisoning.
16. Write in detail about the management of LSD and tobacco abuse.
17. Discuss the evaluation and management of inorganic acid poisoning.
18. Explain the treatment for opioid poisoning.

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**Code No. 12183**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, July 2021**

**Subject: Biopharmaceutics & Pharmacokinetics**

**Time: 2 hours** **Max. Marks: 70**

***Note: Answer any six questions from Part-A and any Four questions from Part-B.***

**Part – A (6 x 5 = 30 Marks)**

1. Explain about Pore transport in absorption of drugs.
2. What is First pass metabolism?
3. Explain about washout period.
4. Explain perfusion rate limited drug distribution.
5. What is the importance of method of residuals?
6. Define the terms Bioavailability and Bioequivalence.
7. Discuss the terms Pharmacokinetics and Pharmacodynamics.
8. How are body tissues classified in a two compartment model?
9. Discuss the causes of non-linearity with examples.
10. Explain about Mean residence time.

**Part – B (4 x 10 = 40 Marks)**

11. Define absorption. What are the various Physico Chemical factors affecting rate of absorption.
12. Explain Phase I pathways of biotransformation.
13. What are Pharmaco Kinetic models? What is the importance and utility of developing such models? Explain briefly the types of Pharmacokinetic models.
14. Derive the equations for one compartment open model intravenous infusion. Explain in detail how can the steady state drug concentration be achieved mole quickly.
15. What is non linear Pharmacokinetics? Explain the Michaelis-Menten method in estimating the parameters.
16. Describe the protocol and procedure for bioavailability studies.
17. Explain about multiple dosage regimen in repetitive intravenous injection.
18. A 50 kg woman was given a single IV dose of an antibacterial drug at a dose level of 6 mg/kg. Blood samples were taken at various time intervals. The concentration of the drug was determined in the Plasma fraction of each blood sample and the following data was obtained. Assume that it follows one compartment open model. Calculate all possible pharmacokinetic parameters.

| Time(h) | 0.25 | 0.5 | 1.0 | 3.0 | 6.0 | 12 | 18 |
|---|---|---|---|---|---|---|---|
| Plasma collected (Mg/Ml) | 8.21 | 7.87 | 7.23 | 5.15 | 3.09 | 1.11 | 0.4 |

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**Code No. 12182**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, July 2021**

**Subject: Biostatistics & Research Methodology**

**Time: 2 hours** **Max. Marks: 70**

***Note: Answer any six questions from Part-A and any Four questions from Part-B.***

**Part – A (6 x 5 = 30 Marks)**

1. Define correlation and write the properties of coefficient of correlation.
2. List the important distributions and elaborate on the normal distribution.
3. Write the properties of Mean and Median. Give the equations to compute SEM, CV, SD and Variance.
4. Write the advantages and disadvantages of Non parametric tests.
5. Write a note on Case Studies.
6. Define Relative Risk and Attributable Risk.
7. Write various sources of Drug Information.
8. Define the terms: Significance level and Confidence level.
9. Explain one tailed and two tailed tests.
10. What are Scatter Plots? What information will you get from them?

**Part – B (4 x 10 = 40 Marks)**

11. (a) Explain in One-way ANOVA.

    (b) Construct Pie chart from the following data obtained in Sieve analysis of Nifedipine powder sample.

| Mesh size(mm) | 425 | 180 | 150 | 90 | 75 | <75 |
|---|---|---|---|---|---|---|
| % retained | 50.1 | 27.2 | 10.4 | 6.0 | 5.1 | 1.2 |

12. (a) Describe the construction of Histogram and Semilog Plots.

    (b) Find out Pearson's coefficient from the following data:

| Height(M) | 1.88 | 1.80 | 1.85 | 1.77 | 1.73 | 1.83 |
|---|---|---|---|---|---|---|
| Weight(Kg) | 96 | 77.7 | 100.9 | 79.0 | 73.0 | 84.5 |

13. (a) Explain the features and uses of EPI-INFO.

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(b) Using Linear Regression model find out slope and y-Intercept from the data given

| Concentration(%) | 1 | 2 | 4 | 8 |
|---|---|---|---|---|
| Optical Density | 0.24 | 0.66 | 1.15 | 2.34 |

14. (a) The following data shows the number of children qualified in an entrance exam before and after taking coaching.

| Before Coaching | 85 | 70 | 40 | 65 | 80 | 75 | 55 | 20 |
|---|---|---|---|---|---|---|---|---|
| After Coaching | 75 | 50 | 50 | 40 | 20 | 65 | 40 | 25 |

Using Sign test at 5% significance level, find out whether there is significant difference between the values.(Given Critical Value:1).

(b) Write a note on cohert studies.

15. (a) Write about computerization of Hospital Pharmacy.

(b) Define: Point estimation and Interval estimation.

16. (a) Write the steps in Hypothesis Testing.

(b) Describe Research Report Writing.

17. (a) A Physician claims that Jogger's Maximal Volume Oxygen uptake is greater than the average of all adults. A sample of 15 Joggers has a Mean of 40.6 ml/kg and AS.D of 6 ml/kg. If the average of all adult is 36.7 ml/kg. Is there enough evidence to support the physician's claim at 5% significance level (Given critical value : 2.624).

(b) Write the procedure to calculate Spearman's Rank Correlation coefficient.

18. (a) Explain the Hypothesis testing using Chi-Square test.

(b) Explain the terms: Predictor, Response Variable, IQR, Midhinge.

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**Code No. 12181**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, July 2021**

**Subject: Clinical Pharmacy**

**Time: 2 hours** **Max. Marks: 70**

***Note: Answer any six questions from Part-A and any Four questions from Part-B.***

**Part – A (6 x 5 = 30 Marks)**

1. Write about scope of Clinical Pharmacy.
2. Write about Medication chart review.
3. Write about the Quality assurance of clinical Pharmacy services.
4. Write about test associated with Cardiac disorders.
5. Write about microbial culture sensitivity test and its importance.
6. Write a note on patient data analysis.
7. Define drug information and classify drug information resources available with examples.
8. Define Pharmacovigilance.
9. Define Pharmaceutical care.
10. Write a note on the information to be documented during Medication History interview.

**Part – B (4 x 10 = 40 Marks)**

11. (a) Explain Liver function tests.
    (b) Explain Renal function tests.
12. Explain the systematic approach in answering Drug information queries.
13. Explain critical evaluation of Biomedical literature.
14. Define Medication error and explain the type of Medication errors.
15. (a) Explain process of pharmaceutical care.
    (b) Explain communication skills required for conducting patient counseling.
16. Explain Drug Utilization Evaluation (DUE) and review (DUR).
17. (a) Explain scope and development of clinical pharmacy.
    (b) Write a short notes on Wardround participation.
18. Explain Reporting, Evaluation, Prevention, Monitoring and Management of Adverse Drug Reaction.

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**Code No.6395**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, December 2020**

**Subject: Hospital Pharmacy**

**Time: 2 hours** **Max. Marks: 70**

## Part – A

***Note: Answer any six questions.*** **(6x5 = 30 Marks)**

1. What is pharmacy and therapeutic committee? Write objectives of PTC.
2. Explain the professional skills required for hospital pharmacist.
3. What is total parentral nutrition and write its composition?
4. Write a note on pyrogen testing.
5. Define poison information center.
6. Explain the importance of newsletter in hospital pharmacy communication.
7. Define Radio pharmaceuticals and explain packaging of Radiopharmaceuticals.
8. Write a note on ABC analysis.
9. Define budget according to Halma.
10. Define pharmacist intervention with an example.

## Part – B

***Note: Answer any Four questions.*** **(4x 10 = 40 Marks)**

11. (a) Define hospital formulary. List out contents of Hospital formulary.
    (b) Write the composition of infection control committee and explain the function of each member.
12. Explain the distribution of narcotics and other controlled substances.
13. Write in detail the steps involved in procurement and warehousing of drugs in Hospital pharmacy.
14. What is research and ethics committee? Write its composition and function.
15. (a) Write the various methods of preparation of oral dosage formulations.
    (b) Write notes on the method of preparation of ointments.
16. Write the organization and major functions of hospitals.
17. Explain role of pharmacist in central sterile services.
18. Write the notes on drug distribution in the hospitals.

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**Code No.6399**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, December 2020**

**Subject: Clinical Toxicology**

**Time: 2 hours** **Max. Marks: 70**

## Part – A

***Note: Answer any Six questions.*** **(6x5 = 30 Marks)**

1. Mention the clinical features of Tobacco poisoning.
2. Write a note on antidote in the management of Organophosphorous Poisoning.
3. Discuss the clearance of Barbiturates in poisoning.
4. Explain role of emesis in the general management of poisoning.
5. Define the terms substance abuse and substance dependence.
6. Write the clinical features of opioids.
7. Discuss the Antidote for methanol and Paracetamol poisoning.
8. List out different poisonous snakes.
9. What are toxicokinetics?
10. Discuss on Hallucinogens.

## Part – B

***Note: Answer any Four questions.*** **(4x 10 = 40 Marks)**

11. Discuss the general management of poisoning.
12. Discuss in detail about Benzodiazepine poisoning.
13. Write a note on (a) Elimination enhancement (b) Mushroom poisoning.
14. Enumerate the sign and symptoms and management of radiation poisoning.
15. Describe the clinical features and management of Arsenic and copper poisoning.
16. Write in detail about the management of Amphetamine and Cannabis abuse.
17. Discuss the evaluation and management of Alkali poisoning.
18. Explain the treatment for food poisoning.

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**Code No.6398**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, December 2020**

**Subject: Biopharmaceutics & Pharmacokinetics**

**Time: 2 Hours** **Max. Marks: 70**

**Part – A**

***Note: Answer any Six questions.*** **(6x5 = 30 Marks)**

1. What is gastric emptying?
2. What is Pinocytosis and Phagocytosis?
3. Explain permeability rate limited drug distribution.
4. What is first order rate process and give some examples?
5. Explain how steady-state can be achieved rapidly.
6. Give a note on volume of distribution.
7. Explain MichaelisMenten equation.
8. Explain BCS classification of drugs.
9. Give a note on Latin square design.
10. Explain about accumulation factor.

**Part – B**

***Note: Answer any Four questions.*** **(4x 10 = 40 Marks)**

11. Define absorption. Explain in detail about carrier mediated transport.
12. Explain the significance of protein binding of drugs and how do you determine binding constants and binding sites by graphical methods.
13. Derive mathematical equations used to calculate pharmacokinetic parameters following IV bolus administration, assuming the drug follows one compartment open model.
14. If the plasma concentration of viomycin after IV bolus administration of 300 mg dose was found to be 10.0 and 5.5 µg/ml at 2 and 4 hours respectively, assuming one compartment kinetics, calculate: Half-life of the drug, the concentration of drug in plasma at time zero, the Vd, the total systemic clearance and the renal clearance ( Fraction excreted unchanged in urine is 0.8).
15. What is non-linear pharmacokinetics? Explain various factors causing non-linearity?
16. Explain the concepts of physiological pharmacokinetic model and statistical moment theory.
17. Explain various methods to enhance bioavailability of drugs.
18. Define bioavailability? Explain various methods to measure bioavailability.

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**Code No.6397**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, December 2020**

**Subject: Biostatistics & Research Methodology**

**Time: 2 hours** **Max. Marks: 70**

## Part – A

***Note: Answer any Six questions.*** **(6x5 = 30 Marks)**

1. Describe Semilog Plots with an example.
2. Define the terms: Power of study and sample size calculation.
3. What is Linear Regression? Write the differences between correlation and Regression.
4. Write the differences between para metric and non-parametric tests.
5. Define point estimation and interval estimation.
6. Write a note on Hospital Management report using Computers.
7. Write the properties of SD, Variance, Range.
8. How will you compute Confidence interval?
9. Define null and alternate Hypothesis with examples.
10. Write a note on observational studies.

## Part – B

***Note: Answer any Four questions.*** **(4x 10 = 40 Marks)**

11. (a) Explain the features of SAS software.
    (b) The following are the inhibition zone diameters (in mm) observed in a Microbiological Assay: 240, 295, 225, 250, 245, 260, 275, 245, 225, 260, 265,240, 260, 275, 250.
    Compute Sample Mean, SD, Sample Variance, Range, SEM, and CV.
12. (a) Explain Two-way ANOVA.
    (b) Describe the construction of Pie chart and Box plots.
13. (a) Describe various Clinical study designs.
    (b) Write the advantages and use of computerized Literature Retrieval.
14. (a) Explain one tailed and two tailed tests.
    (b) Describe Research Report Writing.
15. (a) Write steps in Hypothesis testing.
    (b) What are various ways of Data presentation? Define p values and write the relationship between Mean, Median and Mode.

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16. (a) Explain Type-I and Type-II errors.
    (b) A Medical investigation team claims that the average number of infections per number of 17.7 infections. The sample S.D is 1.8. Is there enough evidence to reject the investigator's claim at 5% significance level?
    (Given Critical value: 2.262)

17. (a) Explain the Hypothesis testing using Kruskal-Wallis H test.
    (b) In a Pharmacokinetics study the following Cmax (in mg/ml) were noted:
    715, 728, 735, 716, 706, 715, 712, 717, 731, 709, 722, 701, 698, 741, 723, 718, 726, 716, 720, 721.
    Calculate Mean, Median and construct Box Plot.

18. (a) Explain the terms: Qualitative Variable, Quantitative Variable, Ordinal Data, Nominal Data.
    (b) Using Linear Regression model find out slope, y-intercept from the data:

| Time(Months) | 6 | 12 | 18 | 24 | 36 | 48 |
|---|---|---|---|---|---|---|
| Assay(mg) | 995 | 984 | 973 | 960 | 952 | 948 |

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**Code No. 6396**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, December 2020**

**Subject: Clinical Pharmacy**

**Time: 2 hours** **Max. Marks: 70**

**Part – A**

***Note: Answer any Six questions.*** **(6x5 = 30 Marks)**

1. Define the term Clinical Pharmacy.
2. Write about Pharmacist Intervention.
3. Write a note on the information to be documented during Medication History Interview.
4. Define Drug Information. Classify Drug information resources with examples.
5. Write a short notes on Patient data Analysis.
6. Give Cockcroft-Gault equation and normal values for serum creatinine and Blood urea nitrogen.
7. Write a note on Fluids & Electrolyte Balance.
8. Define Pharmacovigilance and Pharmaceutical care.
9. Discuss any two abbreviations and terminologies used in Clinical Practice.
10. Discuss the different pulmonary function tests.

**Part – B**

***Note: Answer any Four questions.*** **(4x 10 = 40 Marks)**

11. (a) List out liver function tests, explain any two in detail.
    (b) List out Renal function tests, explain two in detail.
12. Explain systematic approach in answering Drug information queries.
13. Explain critical evaluation of Biomedical literature.
14. Define Medication error and explain the types of Medication errors.
15. (a) Define Adverse drug reaction and classify ADF's and add a note on predisposing factors of ADR.
    (b) Write a short note on Causality assessment scales.
16. (a) Explain the communication skills required for Patient counselling.
    (b) Explain process of pharmaceutical care.
17. Explain Drug utilization evaluation (DUE) and Drug utilization review (DUR).
18. (a) Explain scope and development of clinical pharmacy.
    (b) Write a short notes on Wardround participation.

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**Code No. 6195**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, February 2020**

**Subject : Clinical Pharmacy**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write a brief note on pharmacist interventions.
2 What are the components of Patient Information Leaflet?
3 List out medication errors.
4 What is Pharmacovigilance?
5 Give the Latin and English terminology for the following abbreviations :
a) p.r.n b) H.S c) a.c d) Stat
6 What is dehydration and what are its clinical manifestations?
7 Classify Adverse Drug Reactions.
8 Write a note on organization of Drug Information Centre.
9 Define Total Lung Capacity and Residual Volume.
10 List out the different scales used in the causality assessment of ADRs.

## PART - B (5 x 10 = 50 Marks)

11 Explain about
a) Hyponatremia and its management. 5
b) Culture and Sensitivity tests. 5

12 Write about
a) Mechanisms of Type A Adverse Drug Reactions 6
b) ADR Reporting 4

13 a) Discuss DUR cycle in detail. 7
b) Write briefly about role of clinical pharmacist in DUR. 3

14 Discuss pharmaceutical care concepts in detail. 10

15 Write about
a) Tests associated with cardiac disorders. 7
b) Importance of communication skills for a clinical pharmacist. 3

16 a) Discuss Drug Information Resources with examples. 5
b) Write in detail about Poison Information Centre. 5

17 Define patient counseling. Explain the various steps involved in patient counseling. 10

18 a) Discuss the different types of ward rounds in detail. 5
b) Define MHI and give its importance. What is the significance of a clinical pharmacist in conducting MHI. 5





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**Code No. 6195/PB**

# FACULTY OF PHARMACY

**Pharm. D. (3 YDC) I – Year (Instant) (Post Baccalaureate) Examination,**

**February 2020**

**Subject : Clinical Pharmacy**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write a brief note on pharmacist interventions.
2 What are the components of Patient Information Leaflet?
3 List out medication errors.
4 What is Pharmacovigilance?
5 Give the Latin and English terminology for the following abbreviations :
a) p.r.n b) H.S c) a.c d) Stat
6 What is dehydration and what are its clinical manifestations?
7 Classify Adverse Drug Reactions.
8 Write a note on organization of Drug Information Centre.
9 Define Total Lung Capacity and Residual Volume.
10 List out the different scales used in the causality assessment of ADRs.

## PART - B (5 x 10 = 50 Marks)

11 Explain about
a) Hyponatremia and its management. 5
b) Culture and Sensitivity tests. 5

12 Write about
a) Mechanisms of Type A Adverse Drug Reactions 6
b) ADR Reporting 4

13 a) Discuss DUR cycle in detail. 7
b) Write briefly about role of clinical pharmacist in DUR. 3

14 Discuss pharmaceutical care concepts in detail. 10

15 Write about
a) Tests associated with cardiac disorders. 7
b) Importance of communication skills for a clinical pharmacist. 3

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17 Define patient counseling. Explain the various steps involved in patient counseling. 10

18 a) Discuss the different types of ward rounds in detail. 5
b) Define MHI and give its importance. What is the significance of a clinical pharmacist in conducting MHI. 5

**Code No. 6196**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, February 2020**

**Subject : Biostatistics and Research Methodology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write a note on interventional studies.
2 Explain primary data with examples.
3 Explain standard error of mean.
4 Write a note on level of significance.
5 Explain semilogarthimic plots.
6 Write a note on data range with example.
7 Write a importance of median.
8 Discuss about relative risk and attributable risk.
9 Write the application computer in inventory control.
10 Write a note on Epi-Info.

## PART - B (5 x 10 = 50 Marks)

11 Find the mean, standard deviation, variance and coefficient of variance of the following data on random blood sugar (mg) of 10 individuals recorded in private hospitals. 2.5+2.5+2.5+2.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 110 | 115 | 165 | 90 | 135 | 125 | 105 | 135 | 165 | 155 |

12 Discuss the following :
a) Kruskal-Wall test with example 7
b) Advantages of computerized literature retrieval 3

13 Explain one way ANOVA with the help of one example. 10

14 a) The following figures shows disease count from a region over a span of 1 year. Represent the data by a pie diagram. 7

| Disease | Disease count |
|---|---|
| Jaundice | 22 |
| Tuberculosis | 18 |
| Typhoid | 32 |
| Malaria | 15 |
| Dengue | 26 |

b) Explain in detail about correlation coefficient with example. 3

15 Explain in detail about paired and unpaired t-test with example. 10

16 Discuss the role of computers in 2.5 + 2.5 + 2.5 + 2.5
   a) Patient record database management
   b) Medication order entry
   c) Management report and statistics

17 Write the note on 3+4+3
   a) Null hypothesis and alternative hypothesis
   b) Sample size determination
   c) Histogram

18 a) In an experiment on immunization of cattles from tuberculosis the following result were obtained. 7

| | Affected | Not Affected | Total |
|---|---|---|---|
| Inoculated | 12 | 26 | 38 |
| Not inoculated | 16 | 6 | 22 |
| Total | 28 | 32 | 60 |

Calculate $\chi^2$ and discuss the effect of vaccine in controlling suspectibility to tuberculosis.
(Tabulated value of $\chi^2$ at 5% level of significances = 3.84)

b) Explain chi-square test as a test of goodness of fit. 3

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**Code No. 6196/PB**

# FACULTY OF PHARMACY

**Pharm. D. (3 YDC) I-Year (Instant)(Post Baccalaureate) Examination,**

**February 2020**

**Subject : Biostatistics and Research Methodology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write a note on interventional studies.
2 Explain primary data with examples.
3 Explain standard error of mean.
4 Write a note on level of significance.
5 Explain semilogarthimic plots.
6 Write a note on data range with example.
7 Write a importance of median.
8 Discuss about relative risk and attributable risk.
9 Write the application computer in inventory control.
10 Write a note on Epi-Info.

## PART - B (5 x 10 = 50 Marks)

11 Find the mean, standard deviation, variance and coefficient of variance of the following data on random blood sugar (mg) of 10 individuals recorded in private hospitals. 2.5+2.5+2.5+2.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 110 | 115 | 165 | 90 | 135 | 125 | 105 | 135 | 165 | 155 |

12 Discuss the following :
a) Kruskal-Wall test with example 7
b) Advantages of computerized literature retrieval 3

13 Explain one way ANOVA with the help of one example. 10

14 a) The following figures shows disease count from a region over a span of 1 year. Represent the data by a pie diagram. 7

| Disease | Disease count |
|---|---|
| Jaundice | 22 |
| Tuberculosis | 18 |
| Typhoid | 32 |
| Malaria | 15 |
| Dengue | 26 |

b) Explain in detail about correlation coefficient with example. 3

15 Explain in detail about paired and unpaired t-test with example. 10





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16 Discuss the role of computers in 2.5 + 2.5 + 2.5 + 2.5
   a) Patient record database management
   b) Medication order entry
   c) Management report and statistics

17 Write the note on 3+4+3
   a) Null hypothesis and alternative hypothesis
   b) Sample size determination
   c) Histogram

18 a) In an experiment on immunization of cattles from tuberculosis the following result were obtained. 7

| | Affected | Not Affected | Total |
|---|---|---|---|
| Inoculated | 12 | 26 | 38 |
| Not inoculated | 16 | 6 | 22 |
| Total | 28 | 32 | 60 |

Calculate $\chi^2$ and discuss the effect of vaccine in controlling suspectibility to tuberculosis.
(Tabulated value of $\chi^2$ at 5% level of significances = 3.84)

b) Explain chi-square test as a test of goodness of fit. 3

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**Code No. 6198**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, February 2020**

**Subject : Clinical Toxicology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write the clinical features of cannabis poisoning.
2 Give a note on emesis in the management of poisoning.
3 Define toxicokinetics.
4 Discuss elimination enhancement with examples.
5 List out different poisonous mushrooms.
6 Define antidote. Mention any two examples.
7 Mention signs and symptoms of opioid abuse.
8 Write a note on different causative organisms of food poisoning.
9 Write the management of Tricyclic antidepressant poisoning.
10 Mention clinical features of organochlorines.

## PART - B (5 x 10 = 50 Marks)

11 How will you evaluate the different poisons and discuss their emergency management? 10

12 Discuss in detail about management of organophosphate poisoning. 10

13 Explain the envenomation of snake poisoning in detail. 10

14 Describe the clinical features and management of mercury poisoning. 10

15 Write a note on a) Nicotine abuse b) Amphetamine abuse 5+5

16 Discuss the signs and symptoms and management of inorganic acids poisoning. 10

17 Write about a) Arthopod sting poisoning management b) Radiation poisoning 10

18 Mention the evaluation and management of Benzodiazepine's poisoning. 10

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**Code No. 6198/PB**

# FACULTY OF PHARMACY

**Pharm. D. (3 YDC) I – Year (Instant) (Post Baccalaureate) Examination,**

**February 2020**

**Subject : Clinical Toxicology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write the clinical features of cannabis poisoning.
2 Give a note on emesis in the management of poisoning.
3 Define toxicokinetics.
4 Discuss elimination enhancement with examples.
5 List out different poisonous mushrooms.
6 Define antidote. Mention any two examples.
7 Mention signs and symptoms of opioid abuse.
8 Write a note on different causative organisms of food poisoning.
9 Write the management of Tricyclic antidepressant poisoning.
10 Mention clinical features of organochlorines.

## PART - B (5 x 10 = 50 Marks)

11 How will you evaluate the different poisons and discuss their emergency management? 10

12 Discuss in detail about management of organophosphate poisoning. 10

13 Explain the envenomation of snake poisoning in detail. 10

14 Describe the clinical features and management of mercury poisoning. 10

15 Write a note on a) Nicotine abuse b) Amphetamine abuse 5+5

16 Discuss the signs and symptoms and management of inorganic acids poisoning. 10

17 Write about a) Arthopod sting poisoning management b) Radiation poisoning 10

18 Mention the evaluation and management of Benzodiazepine's poisoning. 10

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**Code No. 6193**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, February 2020**

**Subject : Pharmacotherapeutics-III**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write about Zollinger Eltison's syndrome.
2 Write about the etiology of migraine.
3 Classify types of stroke based on the mechanism.
4 Explain about the maintenance of Remission in IBD.
5 Write the clinical presentation of viral hepatitis.
6 Write a brief note on sickle cell Anaemia.
7 What are the causes of backwash ileitis?
8 Write the pharmacological management of obstructive sleep disorder.
9 Differentiate tension and cluster headaches.
10 Discuss in detail about the diagnostic criteria for Epilepsy.

## PART - B (5 x 10 = 50 Marks)

11 a) Discuss briefly about the etiopathogenesis of GERD. 5
b) Represent pharmacological management of GERD with an algorithm. 5

12 Explain in detail about the etiology, prevention and pharmacological management of Hepatitis B and write a note on vaccines for Hepatitis B. 10

13 Discuss briefly about types of Anaemia's and explain the role of parenteral iron supplements in management of iron deficiency anaemia. 10

14 a) Classify antipsychotic agents with examples. 5
b) Explain in detail about adverse effects of antipsychotic agents used in the management of schizophrenia. 5

15 a) Write in detail about the etiopathogenesis and management of Crohn's diseases. 7
b) Write a brief note on Hepato renal syndrome. 3

16 Explain in detail about evidence based medicine and explain the steps involved in applying the evidence based medicine process in pharmacotherapeutic decision making. 10

17 Write a brief note on anxiety rating scales and write about the role of Benzodiazepines in generalized anxiety disorders along with its adverse effects. 10

18 a) Write about the patterns of drug induced liver disorders. 5
b) Write briefly about Alcoholic liver diseases and its management. 5

**Code No. 6193 / PB**

# FACULTY OF PHARMACY

**Pharm. D. (3 YDC) I – Year (Instant)(Post Baccalaureate) Examination,**

**February 2020**

**Subject : Pharmacotherapeutics-III**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write about Zollinger Eltison's syndrome.
2 Write about the etiology of migraine.
3 Classify types of stroke based on the mechanism.
4 Explain about the maintenance of Remission in IBD.
5 Write the clinical presentation of viral hepatitis.
6 Write a brief note on sickle cell Anaemia.
7 What are the causes of backwash ileitis?
8 Write the pharmacological management of obstructive sleep disorder.
9 Differentiate tension and cluster headaches.
10 Discuss in detail about the diagnostic criteria for Epilepsy.

## PART - B (5 x 10 = 50 Marks)

11 a) Discuss briefly about the etiopathogenesis of GERD. 5
b) Represent pharmacological management of GERD with an algorithm. 5

12 Explain in detail about the etiology, prevention and pharmacological management of Hepatitis B and write a note on vaccines for Hepatitis B. 10

13 Discuss briefly about types of Anaemia's and explain the role of parenteral iron supplements in management of iron deficiency anaemia. 10

14 a) Classify antipsychotic agents with examples. 5
b) Explain in detail about adverse effects of antipsychotic agents used in the management of schizophrenia. 5

15 a) Write in detail about the etiopathogenesis and management of Crohn's diseases. 7
b) Write a brief note on Hepato renal syndrome. 3

16 Explain in detail about evidence based medicine and explain the steps involved in applying the evidence based medicine process in pharmacotherapeutic decision making. 10

17 Write a brief note on anxiety rating scales and write about the role of Benzodiazepines in generalized anxiety disorders along with its adverse effects. 10

18 a) Write about the patterns of drug induced liver disorders. 5
b) Write briefly about Alcoholic liver diseases and its management. 5





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Code No. 6197

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, February 2020**

**Subject : Biopharmaceutics and Pharmacokinetics**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 What is hepatic first pass effect? Give examples.
2 What is sink condition in dissolution testing?
3 What is the effect of plasma drug-protein binding on the volume of distribution of drugs?
4 Explain about steady state plasma concentration in infusion.
5 Define the terms pharmacokinetics and bioequivalance.
6 Give advantages and disadvantages of noncompartmental analysis.
7 What is the use of method of residuals?
8 Explain about β in two compartment open model.
9 Explain about MRT.
10 What is AUC? Give the equation to calculate AUC.

## PART - B (5 x 10 = 50 Marks)

11 Enumerate the biological factors affecting drug absorption? 10

12 Explain phase I and phase II with suitable examples. 10

13 How do you obtain different pharmacokinetic parameters following intravenous bolus administration of a drug that confers one compartment open model characteristics? 10

14 Plasma samples were collected from a patient after an oral rose of 100mg of benzodiazepine solution as follows. Assume that it follows one compartment open model. Calculate all possible pharmacokinetic parameters. 10

| Time (hrs) | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|
| Plasma cone (mg/lit) | 0.38 | 0.73 | 0.91 | 0.97 | 0.97 | 0.92 | 0.71 | 0.53 | 0.40 | 0.30 |

15 Explain in detail about drug accumulation during multiple dosing. 10

16 Explain Michaelis-Menten equation along with estimation of $K_m$ and $V_{max}$. 10

17 Explain the concepts of physiological pharmacokinetic model and statistical moment theory. 10

18 Define bioavailability. Explain the methods of measurement of bioavailability. 10

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Code No. 6194/PB

# FACULTY OF PHARMACY

**Pharm. D. (3 YDC) I – Year (Instant) (Post Baccalaureate) Examination,**

**January 2020**

**Subject : Hospital Pharmacy**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 What are multispecialty hospitals? How they differ from primary healthcare?
2 Differentiate between community pharmacy and hospital pharmacy.
3 What is elite pharmacy?
4 Give the composition of PTC.
5 Enlist hospital committees. Give the composition of Pharmacy and Therapeutic Committee (PTC).
6 Define lead time and safety stock method of inventory control.
7 Discuss radiopharmaceuticals and its uses in therapeutic case.
8 What is CSSS? Write in brief about the role of pharmacist in CSSS.
9 Write a note on TPN.
10 What is news letter?



## PART - B (5 x 10 = 50 Marks)

11 Enlist the different departments of hospitals. Explain the role of pharmacist in betterment of healthcare system. 10

12 Write about the budgetary control pharmacy. Explain the preparation and implementation of budget. 10

13 Explain developing therapeutic guidelines of hospital drug policy. 10

14 Write the steps involved in drug distribution in hospitals. 10

15 Describe in brief the manufacture of liquids and creams. Mention the important instruction while usage of liquid and cream preparations. 10

16 What are powders? Explain the manufacture of powders. Write the advantages of powders over other solid dosage forms. 10

17 Why continuous professional development program is recommended? Explain different education and training approaches for the same. 10

18 Explain the role of hospital pharmacist in patient counseling, preventing ADR and drug interactions, drug intervention etc. 10

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**Code No. 13296**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, July 2019**

**Subject : Biostatistics and Research Methodology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

**PART - A (10 x 2 = 20 Marks)**

1 Write a note on case studies.
2 Explain secondary data with examples.
3 Explain power of a study.
4 Explain coefficient of variation with examples.
5 Define parametric test.
6 Explain about point prevalence and period prevalence.
7 Write the significance of sign test.
8 Find the median of 3, 8, 9, 6, 4, 10, 12, 5
9 Define spearman's rank correlation.
10 Explain systematic and stratified sampling.

**PART - B (5 x 10 = 50 Marks)**

11 a) Explain sampling and non sampling errors. 4
b) Find standard deviation and draw a histogram for the following data. 6

| Age (in year) | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
|---|---|---|---|---|---|---|---|
| No. of cancer patients | 3 | 16 | 22 | 35 | 24 | 15 | 02 |

12 The incubation period of small pox recorded on 10 patients are given below. Calculate mean, variance, standard error of mean and coefficient of variance.
Incubation period = 10, 14, 13, 11, 15, 10, 9, 12, 10, 16 (1.5 + 2 + 2.5 +2)

13 Explain in detail about paired and unpaired t-test with example. 10

14 a) Explain the significance of Chi-Square test. 5
b) Find the coefficient of correlation between the variables X and Y using Karl Pearson's method. 5

| X | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
|---|---|---|---|---|---|---|---|---|
| Y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

15 Explain in detail 4+3+3
a) SPSS
b) Statistical estimation
c) Confidence interval



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**Code No. 13294**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, June 2019**

**Subject : Hospital Pharmacy**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

**PART - A (10 x 2 = 20 Marks)**

1 Differentiate primary, secondary and tertiary care hospital.
2 What is bed-side pharmacy?
3 Define pharmacist intervention with an example.
4 Write about importance of budget on hospital pharmacy.
5 Write the significance of hospital formulary.
6 Write the composition of infection control committee.
7 Write the significance of newsletter in hospital communication.
8 Write in brief about drug inventory in hospital pharmacy.
9 What is floor stock method of drug distribution in hospital?
10 What are radiopharmaceuticals? Name any two radiopharmaceuticals.

**PART - B (5 x 10 = 50 Marks)**

11 Write the organization and major functions of hospitals. 10

12 What is hospital formulary? Write the significance of hospital formulary. Describe the development and management of hospital formulary. 10

13 What is research and ethical committee? Write its composition and functions. 10

14 What is drug distribution in hospital? Explain distribution of narcotic and other controlled substances. 10

15 What are sterile formulations? Explain aseptic transfer. Write the procedure for sterilization of IV bolus preparations. 10

16 Write about manufacturing of Tablets and Capsules. 10

17 Highlight on education and training aspects of continuing professional development programs. 10

18 How do hospital pharmacists play important roles in maintaining the professional relationship? 10

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**Code No. 13293**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, July 2019**

**Subject : Pharmacotherapeutics-III**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write a brief note on different scales for rating pain.
2 Write a short note on venous thrombo embolism.
3 Write about the pharmacological management of Alzheimer's disease.
4 Discuss in detail about the etiology and prevention of Hepatitis B.
5 Define early virologic response and sustained virologic response seen in HCV.
6 Classify antipsychotic agents with examples.
7 Write a note on use of triptans in migraine.
8 Write about the management of Narcolepsy.
9 Differentiate ulcerative colitis and Crohn's disease.
10 Explain about diagnostic criteria for Ischemic stroke.

## PART - B (5 x 10 = 50 Marks)

11 a) Write about etiology and risk factors for peptic ulcer disease. 4
b) Write about the management of PUD. 6

12 a) Write briefly about any two drug induced blood disorders. 5
b) Discuss in detail about all the diagnostic parameters of Anaemia. 5

13 Discuss in detail about the etiopathogenesis and management of stroke. 10

14 Define evidence based medicine and write briefly about the significance of validity and the types of bias in evidence based medicine. 10

15 a) Write the staging of Parkinson's according to Hoehn and Yahr scale. 5
b) Write in detail about the role of carbidopa / levodopa and its motor complications in the management of Parkinson's disease. 5

16 a) Explain in detail about etiopathogenesis Alcoholic liver disease. 5
b) Write a note on any one drug induced blood disorder. 5

17 a) Discuss in detail about heparin induced thrombocytopenia and its management. 6
b) Write a brief note on Haemolytic Anaemia. 4

18 a) What are the different types of Bipolar disorders? 5
b) Discuss the management of Genealized Anxiety disorder. 5

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**Code No. 13298**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, July 2019**

**Subject : Clinical Toxicology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

**PART - A (10 x 2 = 20 Marks)**

1 Write the clinical features of amphetamine poisoning.
2 Give a note on activated charcoal treatment in the management of poisoning.
3 Discuss elimination enhancement in barbiturate poisoning.
4 Define toxicokinetics.
5 List out different poisonous Arthopods.
6 Define antidote. Mention any two examples.
7 Define the terms drug abuse and drug dependence.
8 Write antidote for venomus snake poisoning.
9 Write the management of paracetamol poisoning.
10 Mention clinical features of pyrethroids.

**PART - B (5 x 10 = 50 Marks)**

11 How will you evaluate the poisons and discuss the general decontamination and elimination enhancement? 10

12 Discuss in detail about management of NSAID's poisoning. 10

13 Explain the envenomation of snake poisoning in detail. 10

14 Describe the clinical features and management of arsenic poisoning. 10

15 Write a note on a) cannabis abuse b) opioid abuse 5+5

16 Discuss the signs and symptoms and management of inorganic acids poisoning. 10

17 Write about a) food poisoning b) Radiation poisoning 10

18 Mention the evaluation and management of petroleum and PEG poisoning. 10

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**Code No. 13298/PB**

# FACULTY OF PHARMACY

**Pharm. D. (3 YDC) I – Year (Post Baccalaureate) (Main & Backlog) Examination,**

**July 2019**

**Subject : Clinical Toxicology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

**PART - A (10 x 2 = 20 Marks)**

1 Write the clinical features of amphetamine poisoning.
2 Give a note on activated charcoal treatment in the management of poisoning.
3 Discuss elimination enhancement in barbiturate poisoning.
4 Define toxicokinetics.
5 List out different poisonous Arthopods.
6 Define antidote. Mention any two examples.
7 Define the terms drug abuse and drug dependence.
8 Write antidote for venomus snake poisoning.
9 Write the management of paracetamol poisoning.
10 Mention clinical features of pyrethroids.

**PART - B (5 x 10 = 50 Marks)**

11 How will you evaluate the poisons and discuss the general decontamination and elimination enhancement? 10

12 Discuss in detail about management of NSAID's poisoning. 10

13 Explain the envenomation of snake poisoning in detail. 10

14 Describe the clinical features and management of arsenic poisoning. 10

15 Write a note on a) cannabis abuse b) opioid abuse 5+5

16 Discuss the signs and symptoms and management of inorganic acids poisoning. 10

17 Write about a) food poisoning b) Radiation poisoning 10

18 Mention the evaluation and management of petroleum and PEG poisoning. 10

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**Code No. 13297**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, July 2019**

**Subject : Biopharmaceutics and Pharmacokinetics**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

**PART - A (10 x 2 = 20 Marks)**

1 Explain about Fick's first law of diffusion.
2 Define elimination half life and give its equation.
3 What is zero order reaction. Give example.
4 Explain about loading dose in IV infusion.
5 How are body tissues broadly classified in two compartment open model.
6 Describe Michaelis-Menten equation.
7 In compartment modeling, what does the term "open" mean.
8 Explain the BCS system.
9 Define accumulation index.
10 Write about objectives of bioavailability studies.

**PART - B (5 x 10 = 50 Marks)**

11 Define absorption. Explain various mechanisms of drug absorption. 10

12 Write about factors affecting protein binding and explain briefly about kinetics of protein binding. 10

13 Explain different compartment models along with different diagrams and mention their significance. 10

14 An 80kg man was given a single IV dose of sulfa ethyl thiadiazole at a dose level of 25 mg/kg. Blood samples were taken at various time intervals. The concubern of drug was determined in the plasma and following data was obtained. Assume that it follows one compartment open model. Calculate all possible pharmacokinetic parameters. 10

| Time (hrs) | 1 | 2 | 4 | 6 | 8 |
|---|---|---|---|---|---|
| Plasma cone (mg/lit) | 120 | 102 | 85 | 72 | 58 |

15 Write different methods to calculate absorption rate constant (Ka) in one compartment open model extravascular administration. 10

16 Explain in detail about multiple dosage regimens. 10

17 What are nonlinear pharmacokinetics? Discuss the various factors causing non linearity. 10

18 With suitable examples, explain the methods to enhance the bioavailability of poorly water soluble drugs. 10

**Code No. 13295**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main & Backlog) Examination, June 2019**

**Subject : Clinical Pharmacy**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Part-A & answer any Five questions from Part-B.***

## PART - A (10 x 2 = 20 Marks)

1 Write a short note on scope of Clinical Pharmacy.
2 Write briefly about clinical review.
3 What is the importance of patient counseling?
4 Write a short note on Quality Assurance of Clinical Pharmacy Services.
5 Give Cockcroft-Gault equation and normal values for serum creatinine and BUN.
6 What is blinding and what are the different types of blinding?
7 What is pharmaceutical care?
8 Write a short note on secondary drug information resources with examples.
9 What is the scope of Pharmacovigilance?
10 What is medication adherence and give any two scenarios of non adherence of patients to medication?

## PART - B (5 x 10 = 50 Marks)

11 Write about
a) Thyroid Function Tests 5
b) i) Bilirubin ii) Alanine Transaminase and Asparatate Transaminase 5

12 Write about the steps involved in answering Poison Information Queries.

13 Write about
a) Different scales used in the causality assessment of ADRs. 5
b) Prevention of ADRs 5

14 a) Explain about prevention of Medication errors. 5
b) Write about any two medication errors with examples. 5

15 a) Discuss Pulmonary functions tests. 5
b) Role of pharmacist in DUR. 5

16 a) Define Medication order review and give its significance. Write in detail about Medication Chart Endorsement. 6
b) Write about bias. 4

17 a) Write in detail about verbal and written communication. 7
b) Write about labeling of medicines. 3

18 Explain about critical appraisal of meta analysis, cohort studies and therapeutic guidelines. 10



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16 Describe the role of computers in 3+3+4
   a) Prescription dispensing process
   b) Pharmaceutical care in community pharmacy
   c) Accounting and General ledger system

17 Write a note on report writing and presentation of data in Research Methodology. 10

18 Perform ANOVA for the following data and find out whether means of the three blood samples of diabetic patients differ significantly or not 10
   [$F_{tab}$ at $\alpha = 0.05 = 3.9$].

| Sample 1 | Sample 2 | Sample 3 |
|---|---|---|
| 20 | 19 | 13 |
| 10 | 13 | 12 |
| 17 | 17 | 10 |
| 17 | 12 | 15 |
| 16 | 09 | 5 |

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Code No. 1257

# FACULTY OF PHARMACY

**Pharm D (6-YDC) IV – Year (Main & Backlog) Examination, July 2018**

**Subject: Hospital Pharmacy**

**Time: 3 Hours** **Max.Marks: 70**

**Note: Answer all questions from Part – A. Any Five questions from Part – B.**

## PART – A (10x2 = 20 Marks)

1 Explain major functions of hospital.
2 What are the responsibilities of a hospital pharmacy?
3 What is bed-side pharmacy?
4 Write a short note on hospital pharmacy budget.
5 Give composition of research and ethical committee.
6 What is floor stock method in hospital pharmacy services?
7 Write a note on news letter of hospital pharmacy.
8 Write a brief note on manufacturing of sterile formulations.
9 What are the roles of hospital pharmacist in radio isotopes committee?
10 Give a note on developing therapeutic guidelines.

## PART – B (50 Marks)

11 Explain the organization and management of hospital pharmacy. 10
12 Describe the various functions of a pharmacy and therapeutic committee (PTC) in hospital. 10
13 Define hospital formulary and write steps involved in hospital formulary preparation. 10
14 Write in detail about the composition and functioning of hospital infection control committee (HICC). 10
15 Explain stock system. Add a note on pharmacist in it. 10
16 Describe in detail the procedure and precautions to be taken in the manufacturing of large and small volume parenterals. 10
17 1) Write bout: 5
   a) ABC
   b) EOQ method of inventory control.
   2) What is the significance of lead time and safety stock analysis? 5

18 a) Write a short note on manufacturing of TPN and its significance in critically ill patients. 5
   b) Explain professional relations of hospital pharmacist with other professionals. 5

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Code No. 1256

# FACULTY OF PHARMACY

**Pharm D (6-YDC) IV-Year (Main & Backlog) Examination, July 2018**

**Subject: Pharmacotherapeutics – III**

**Time: 3 Hours** **Max.Marks: 70**

**Note: Answer all questions from Part – A. Any Five questions from Part – B.**

## PART – A (10x2 = 20 Marks)

1 What are the causes of Peptic Ulcer?
2 List out the lifestyle modifications to manage GERD.
3 Compare the clinical features of Crohn's disease and Ulcerative Colitis.
4 List out the drugs that help in sustaining alcohol abstinence.
5 Write a note on vaccines for Hepatitis A.
6 Write the normal values of Hb, Hct, MCV and RBC count in adults.
7 Write briefly about the management of Alzheimer's disease.
8 Write the clinical presentation of Parkinsonism.
9 Write a note on sleep cycles.
10 Define and classify pain.

## PART – B (50 Marks)

11 a) Explain acid suppression therapy in management of GERD. 6
b) Write a note on induction of remission in inflammatory bowel disease. 4

12 a) Explain in brief the role of interferons used in management of Hepatitis. 3
b) Discuss the pharmacological management of venousthromboembolism along with their mechanism of action and adverse drug reactions. 7

13 a) Write a note on Drug Induced agranulocytosis. 5
b) Explain the role of oral iron supplements in management of iron deficiency anemia. 5

14 a) Explain the management of Acute Ischemic Stroke. 6
b) Explain the role of Carbidopa/L-Dopa in management of Parkinsonism. 4

15 a) Explain the pharmacotherapy of Mania. 7
b) List out the first line agents used in management of Anxiety Disorders. 3

16 a) Write the algorithm for management of Schizophrenia. 6
b) Write a note on management of Obstructive Sleep Apnea. 4

17 a) Explain the role of Opioid Analgesics in pain management. 7
b) Write a note on migraine prophylaxis. 3

18 Explain in detail the incorporation of Evidence Based Medicine in pharmacotherapeutic decision making. 10

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Code No. 1261

# FACULTY OF PHARMACY

## Pharm D (6–YDC) IV-Year (Main & Backlog) Examination, July 2018

## Subject: Clinical Toxicology

**Time: 3 Hours** **Max.Marks: 70**

**Note: Answer all questions from Part – A. Any Five questions from Part – B.**

### PART – A (10x2 = 20 Marks)

1 Write a note on arthropod stings.
2 List the clinical features in radiation poisoning.
3 Write a note on mycotoxin poisoning.
4 Explain antidote administration in ethanol poisoning.
5 What is gastric lavage? Explain.
6 Write the symptoms and complications of cobra bite.
7 What is salicylism? Write the management of salicylate overdose.
8 What is elimination enhancement?
9 Write a note on management of iron poisoning.
10 What are common modes of antidote administration?

### PART – B (50 Marks)

11 a) Discuss in detail about gut decontamination. 6
b) Explain the role of toxicokinetics in the management of poisoning. 4

12 Describe the clinical features and management of paracetamol poisoning and add a note on acetyl cystiene. 10

13 Explain in detail about clinical features and management of lead toxicity. 10

14 a) Discuss radiation poisoning in detail. 5
b) How to manage PEG toxicity. 5

15 a) Enumerate the clinical features of arthropod poisoning. 6
b) Write the management of CNS depressants. 4

16 a) Discuss the clinical features of opioid abuse. 5
b) Write a note on organochlorine poisoning. 5

17 a) Classify poisonous mushrooms. Write in detail about mushroom poisoning. 6
b) Give a note on supportive care. 4

18 a) Enumerate the clinical features of HCl toxicity and discuss its management. 7
b) Write a note on clinical features of hallucinogens. 3

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Code No. 1260

# FACULTY OF PHARMACY

**Pharm D (6–YDC) IV-Year (Main & Backlog) Examination, July 2018**

**Subject: Biopharmaceutics & Pharmacokinetics**

**Time: 3 Hours** **Max.Marks: 70**

**Note: Answer all questions from Part – A. Any Five questions from Part – B.**

## PART – A (10x2 = 20 Marks)

1 Define absorption window and write its significance.
2 Renal excretion of penicillin is unaffected by protein drug binding. Why?
3 Differentiate between absolute and relative bioavailability.
4 In comparison to mammillary model the caternary model is less useful. Why?
5 List the factors that influence the gastric emptying rate.
6 Write a note on drug accumulation in multiple dosing.
7 What are the assumptions made in developing for a one compartment model?
8 Explain Fick's law of diffusion.
9 What is flip-flop phenomenon and when is observed.
10 What do you mean by principle of superposition?

## PART – B (50 Marks)

11 Describe influence of drug dissolution, polymorphism and compression forces in drug absorption with suitable examples.

12 Explain various factors affecting distribution of drugs.

13 Explain the kinetics of drug absorption from plasma concentration data following oral dose by using Wapner-Nelson method.

14 a) Write a note on non-linear pharmacokinetics. 3
b) Derive Michaelis-Menton equation and estimation of $K_m$ and $V_{max}$. 7

15 What is statistical moment theory and MRT? Explain briefly about various physiological pharmacokinetic models. (2+1+7)

16 Explain briefly protocols and methods of assessment of bioavailability. 10

17 Write a detailed note on compartment model. 10

18 a) Why the drugs are administered in multiple doses. 2
b) How do you determine steady state maximum and minimum concentrations of drug following multiple oral doses? 8

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Code No. 1259

# FACULTY OF PHARMACY

**Pharm D (6–YDC) IV-Year (Main & Backlog) Examination, July 2018**

**Subject: Biostatistics & Research Methodology**

**Time: 3 Hours** **Max.Marks: 70**

**Note: Answer all questions from Part – A. Any Five questions from Part – B.**

## PART – A (10x2 = 20 Marks)

1 Write the advantages of semilogarthimic plots.
2 Define data range and write its uses.
3 Define incidence and prevalence.
4 Explain null hypothesis and alternative hypothesis.
5 Define standard error of mean.
6 Define type-I error.
7 Define two tailed test.
8 Define and write the significance of confidence interval.
9 Explain parametric and non-parametric tests.
10 Write the merits and demerits of arithmetic mean.

## PART – B (50 Marks)

11 Explain in detail about observational and interventional studies in clinical study design.

12 Explain in detail one-way ANOVA with example.

13 Calculate median, mode, standard deviation and variance from the following frequency distribution of marks in biostatistics.

| Marks | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| No. of students | 20 | 43 | 75 | 76 | 72 | 45 | 39 | 9 | 8 | 6 |

14 Calculate the correlation coefficient between the height of the father and the son from the given data.

| Height of father (in inches) | 65 | 66 | 67 | 68 | 67 | 69 | 70 | 64 | 65 | 63 |
|---|---|---|---|---|---|---|---|---|---|---|
| Height of son (in inches) | 68 | 65 | 68 | 70 | 67 | 68 | 72 | 66 | 68 | 62 |

Test the significance correlation coefficient and interpret the result

$$\left[ t_{\text{tabulated}} \begin{array}{l} \text{at } 5\% = 2.31 \\ \text{at } 1\% = 3.36 \end{array} \right]$$

..2

15 a) The following figures shows disease count from a region over a span of 5 months. Represent the data by a pie-diagram.

| Disease | Disease count |
|---|---|
| HIV | 13 |
| Malaria | 15 |
| Diarrhoea | 13 |
| Tuberculosis | 12 |
| Influenza | 17 |

b) In a study of diabetic patients, the following data were obtained. Draw a histogram to represent the following data.

| Age (in yr) | No. of persons |
|---|---|
| 10 – 20 | 3 |
| 20 – 30 | 6 |
| 30 – 40 | 14 |
| 40 – 50 | 9 |
| 50 – 60 | 5 |
| 60 – 70 | 2 |

16 Explain in detail using suitable example.
a) Mann Whitney U Test
b) Chi-square test

17 Describe the role of computers in medication order entry, patient medication profile and inventory control in hospital pharmacy.

18 Ten students were given intensive coaching in biostatistics. The scores obtained in 1st and 4th test are given below:

| Sl.No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Marks in 1st test | 40 | 45 | 60 | 65 | 70 | 55 | 72 | 80 | 67 | 64 |
| Marks in 4th test | 55 | 52 | 54 | 53 | 64 | 59 | 68 | 71 | 73 | 52 |

Does the scores from test 1st to test 4th show an improvement?
[$T_{tabulated}$ at 5% = 2.57].

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Code No. 1258

# FACULTY OF PHARMACY

**Pharm D (6–YDC) IV-Year (Main & Backlog) Examination, July 2018**

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max.Marks: 70**

**Note: Answer all questions from Part – A. Any Five questions from Part – B.**

## PART – A (10x2 = 20 Marks)

1 Define clinical pharmacy.
2 What is the importance of ward round participation?
3 Define drug information and give the examples of primary drug information resources.
4 What are the components of medication history interview?
5 Give the normal values of Hb, Hct, MCV and MCH.
6 Write a note on organization of poison information center.
7 Define and differentiate adverse drug reactions and adverse events.
8 List out the non-verbal skills in patient counseling.
9 Write the significance of CKMB and troponins in cardiology.
10 What are Type I and Type II errors?

## PART – B (50 Marks)

11 a) Explain the components of medication chart review. 7
b) Write in brief about the quality assurance of clinical pharmacy services. 3

12 a) Write a note on barriers to patient counseling. 5
b) What is the significance of medication history interview? 5

13 a) What are the types and aims of DUE? 5
b) Write a note on scope of clinical pharmacy in India. 5

14 Write briefly about:
a) Renal function tests 5
b) Structure of a patient's case history 5

15 Explain the steps involved in answering drug information questions. 10

16 a) What are the predisposing factors for development ogf ADRs? 6
b) Write a note on role of pharmacist in ADR reporting. 4

17 Explain pharmaceutical care and its various components. 10

18 a) What are the types of medication errors? 5
b) Write the stepwise approach to evaluate biomedical literature. 5

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**Code No. 1120**

# FACULTY OF PHARMACY

**Pharm. D (6 YDC) IV - Year (Instant) Examination, March 2018**

**Subject: Hospital Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 How many pharmacists are required for hospital 50 and 200 beds?
2 Brief notes how a hospital administrator plays a key role in the management of a hospital.
3 Write notes on function of drug information center.
4 Define hospital formulary system.
5 According to Halma define budget?
6 Brief notes on test for pyrogens.
7 Define powders? What is coarse powder and fine powder?
8 What is the importance of research and ethical committee?
9 Discuss the handling of radiopharmaceuticals.
10 Explain the professional skills required for hospital pharmacist.

**PART – B (5 x 10 = 50 Marks)**

11 Classify hospitals? Mention the various functions of hospital.

12 Discuss the guidelines and preparation of hospital formulary.

13 Write the composition and functions of Pharmacy and Therapeutic committee.

14 Write notes on various methods of inventory control like ABC, EOQ, VED analysis, buffer stock and safety stock.

15 Write the notes on drug distribution in the hospitals.

16 Explain the distribution of narcotic and other controlled substances.

17 (a)Explain the news letter in hospital pharmacy communication.
(b) Write the various methods of preparation of oral dosage formulations.

18 (a)What is total parentral nutrition? Explain its components and compounding of TPN.
(b)Write notes on the method of preparation of Ointments.

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Code No. 1124

# FACULTY OF PHARMACY

## Pharm. D (6 YDC) IV - Year (Instant) Examination, March 2018

**Subject: Clinical Toxicology**

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 How does an Anti-dote act? Give two examples.
2 Write the Clinical features of Benzodiazepine poisoning.
3 Write the Anti-venom for the snake poisoning.
4 What are the signs and symptoms of Nicotine poisoning?
5 Write the envenomation of scorpion bite.
6 Write the first aid treatment in snake poisoning.
7 How do you treat a Patient ingested with Radioactive material?
8 Write the clinical manifestation of paracetemol poisoning.
9 What are caustics? Write the clinical symptoms of caustic poisoning.
10 Write a note on Cathorsis.

**PART – B (5 x 10 = 50 Marks)**

11 Explain the principles involved in the management of poisoning.

12 Explain the clinical symptoms and management of chronic poisoning of lead and copper.
13 (a) Differentiate between Venomous and Non-Venomous snakes.
(b) Write a note on early manifestations, Complications of snake Bite Injuries.

14 (a) Define the term “Envenomation”. Write the clinical symptoms of Arthopod Bite.
(b) Add a note on the treatment of Arthropod Poisoning.

15 (a)Write the Clinical symptoms of poisoning of petroleum products.
(b)Write the treatment of poisoning of petroleum products and PEG.

16 Write the Clinical symptoms of Plant poisoning. Add a note on the treatment of Plant poisoning.

17 (a) Explain Toxicokinetics in detail.
(b) Write about supportive case in Clinical Toxicology.

18 What are OrganophosPhorus Compounds?
(a) Write clinical symptoms of Organophosphorus compounds poisoning.
(b) Write the treatment for carbamate poisoning.

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Code No. 1123

# FACULTY OF PHARMACY

**Pharm. D (6 YDC) IV - Year (Instant) Examination, March 2018**

**Subject: Biopharmaceutics and Pharmacokinetics**

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Give the specific characteristics of carrier mediated transport

2 Why intravenous administration of thiopental causes a quick onset of action and a Rapid termination of action.

3 Differentiate excretion rate method and sigma minus method.

4 Give a brief account on principle of superposition.

5 Why are phase-I reactions called as functionalisation reactions?

6 Mention different Pharmacodynamic parameters.

7 Give a brief note on clearance of drugs.

8 Write about statistical moment theory.

9 What is the rate limiting step in bioavailability?

10 Write about Enzyme induction.

**PART – B (5 x 10 = 50 Marks)**

11 Explain briefly about the bioavailability study protocol.

12 Explain in detail about the dosage form factors affecting drug absorption.

13 (a) Write the causes of nonlinearity.
(b) Derive the kinetics of protein binding.

14 Write about different non-renal routes of excretion.

15 (a)Derive the equation for I.V infusion unchanged drug in Blood/Plasma following one compartment model.

(b) A patient is given an antibiotic having $t_{1/2}$ of hrs by constant IV infusion at a rate of 3 mg/hr. At the end of 36 hrs, the plasma drug concentration is 2.2mg/L. Calculate the total body clearance(L/t) for this antibiotic. What is the volume of distribution of drug (vd)?

16 Write a detailed note on pharmacokinetic models.

17 Give a brief account on phase-I reactions.

18 Derive the equation for determination of ka by Wagner-Helson method.

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**Code No. 1122**

# FACULTY OF PHARMACY

**Pharm. D (6 YDC) IV - Year (Instant) Examination, March 2018**

**Subject: Biostatistics and Research Methodology**

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

## PART – A (10 x 2 = 20 Marks)

1 Explain Null hypothesis?
2 Explain about incidence and prevalence?
3 Find the mean from the following data

| X | 2 | 4 | 6 | 8 | 10 | 12 | 14 |
|---|---|---|---|---|---|---|---|

4 Discuss level of significance?
5 Explain deviation bar diagram?
6 Write the difference between simple, partial and multiple correlations?
7 Explain 'Interval estimation'?
8 Write the applications of MS Access?
9 Explain 'Two Tailed test of hypothesis'?
10 Write the applications of chi-square test?

## PART – B (5 x 10 = 50 Marks)

11 Find the two regression lines for the data given below using the method of least square?

| X | 5 | 10 | 15 | 20 | 25 | 30 |
|---|---|---|---|---|---|---|
| Y | 15 | 20 | 30 | 25 | 35 | 40 |

12 Discuss the various methods of collecting primary data along with their merits and demerits?

13 Find the variance and %RSD from the following data?

| X | 13 | 10 | 19 | 7 | 12 | 6 | 14 | 22 | 9 |
|---|---|---|---|---|---|---|---|---|---|

14 Write a short note on:
(a)Histogram (b) Frequency polygon

15 Two independent samples of 7 and 8 items respectively had the following readings State, if the two estimates of population variance differ significantly?
(Given the tabulated value = 4.21)

| Sample A | 10 | 8 | 9 | 13 | 11 | 12 | 9 | |
|---|---|---|---|---|---|---|---|---|
| Sample B | 15 | 13 | 14 | 11 | 12 | 10 | 8 | 6 |

16 Write short note on:
(a) Run test (b) U test

17 The T.V. Company claims that is T.V sets have a mean life of 800 days. A random sample of 10 such sets gives the following data. In the light of the above facts, state if the claim of the company is valid at 5% significance level. (Given the tabulated value=2.62)

| Life in days: | 540 | 700 | 600 | 780 | 750 | 720 | 815 | 830 | 870 |
|---|---|---|---|---|---|---|---|---|---|

18 Write a note on:
(a) computer applications in hospital pharmacy
(b) computer applications for pharmaceutical care in community pharmacy.

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Code No. 1121

# FACULTY OF PHARMACY

## Pharm. D (6 YDC) IV - Year (Instant) Examination, March 2018

**Subject: Clinical Pharmacy**

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Write a note on scope of clinical pharmacy in India.

2 Give the examples of primary, secondary and tertiary poison information resources.

3 What is the importance of medication history?

4 Give the significance of pharmacist interventions with

5 Write the normal values of Total bilirubin, unconjugated bilirubin, AST and ALT.

6 What are the various types of communication skills required in patient counseling?

7 What a note on Naranjo adverse drug reaction probability scale.

8 How does pharmaceutical care differ from clinical pharmacy?

9 What is root cause analysis?

10 Differentiate between bias and confounding.

**PART – B (5 x 10 = 50 Marks)**

11 (a) Write a note a clinical/daily progress review.
(b) What are the goals and objectives of clinical pharmacists in ward rounds?

12 (a) Write a note on counseling aids.
(b) What information should be recorded during medication history interview?

13 Explain the steps involved in conducting Drug Utilization Evaluation.

14 (a) Explain hematological tests.
(b) What are the applications of pulmonary function tests?

15 (a) What are the advantages and disadvantages of different drug information resources?
(b) Write the systematic approach of answering drug queries.

16 (a) What are the mechanisms of Type A adverse Drug Reactions.
(b) Write a note on role of pharmacist in ADR management.

17 Explain the types of medication errors. Write a note on prevention of medication errors.

18 (a)How is Pharmaceutical care documented?
(b)What a note sample size in clinical studies.

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**Code No. 1119**

# FACULTY OF PHARMACY

**Pharm. D (6 YDC) IV - Year (Instant) Examination, March 2018**

**Subject: Pharmacotherapeutics - III**

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Write a note on H.pylori induced Peptic ulcer.
2 What is the role of proton pump inhibitors and sucralfate in the management of GERD?
3 What are the signs and symptoms of Ulcerative Colitis?
4 What are the stages of Alcoholic liver Disease?
5 Write a note on prevention of Hepatitis B.
6 Classify Anemias based on morphology of RBCs.
7 What are the advantages of LMWH over UFH?
8 Write the international classification of Epileptic Seizures.
9 Write the DSM-IV-TR classification of sleep disorders.
10 What are the risk factors of Ischemic Stroke?

**PART – B (5 x 10 = 50 Marks)**

11 (a) Write a drug regiments used to eradicate Helicobacter pylori.
(b) Write a note on maintenance of remission in IBD.

12 (a) List out the drugs that induce liver disease.
(b) Discuss about esophageal varices and its management.

13 (a) Write a note on Heparin Induced Thrombocytopenia.
(b) Explain the role of parenteral iron supplements in management of Iron deficiency anemia.

14 (a) Explain the strategies for secondary prevention of Ishemic Stroke.
(b) Write a note on motor complications of L-Dopa.

15 (a) Explain the pharmacotherapy of Depression.
(b) Write the clinical presentation of Generalized Anxiety Disorder.

16 (a) Explain the Adverse effects of antipsychotics used in management of Schizophernia.
(b)What are the Nonpharmacological recommendations for Insomnia?

17 (a)Explain the role of Nonpioid analgesics in pain management.
(b) Write a note on use of Triptans in migrane.

18 Explain the steps involved in applying the Evidence Based Medicine process in Pharmacotherapeutic decision making.

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Code No. 4269

# FACULTY OF PHARMACY

## Pharm. D IV-Year (6 YDC) (Main) Examination, July 2017

**Subject : Pharmacotherapeutics - III**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Differentiate between the different types of headaches.
2 Write a note on anemia in pediatric population.
3 What are the motor complications of levodopa?
4 How is Hepatitis A diagnosed?
5 Write the clinical presentation of pulmonary embolism.
6 Write a brief note on the different scales for rating depression.
7 What are the different types of Bipolar disorder?
8 Write a short note on obsessive compulsive disorder.
9 Differentiate between gastric and duodenal ulcers.
10 Write a brief note on different types of sleep disorders.

**PART – B (5 x 10 = 50 Marks)**

11 (a) Write about the patterns of drug induced liver disease.
(b) Write briefly about alcoholic liver disease and its management.

12 (a) Draw an algorithm for the treatment of schizophrenia.
(b) Write a note on parenteral iron therapy.

13 (a) Classify antipsychotic agents with examples.
(b) Classify the types of seizures and add a note on the role of phenytoin in the management of seizures.
(c) Discuss briefly the management of different types of headaches.

14 (a) Elaborate on the pharmacological management of Parkinson's disease.
(b) Write briefly the pathophysiology of pain.

15 (a) Discuss regarding jaundice, its clinical presentation and management.
(b) Write about the etiopathogenesis and management of Heparin Induced Thrombocytopenia.

16 (a) Write briefly on any two drug induced blood disorders.
(b) Elaborate on the different resources used in practicing evidence based medicine.

17 (a) Discuss the management of generalized anxiety disorder.
(b) Write in detail the pathophysiology of Alzheimer's disease.

18 Discuss in detail the etiopathogenesis and management of stroke.

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Code No. 4274

# FACULTY OF PHARMACY

## Pharm. D (6 YDC) IV-Year (Main) Examination, July 2017

**Subject : Clinical Toxicology**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 What is tobacco amblyopia? Write the signs and symptoms of tobacco dependence.
2 Define toxicokinetics.
3 Write a note on gut decontamination.
4 What are the signs and symptoms of cannabis abuse?
5 What are caustics and mention any two examples of each?
6 Write a note on carbamate poisoning.
7 Define antidote and mention at least two examples.
8 List out clinical features for paracetamol overdose.
9 Write the management of benzodiazepine poisoning.
10 What are hallucinogens? Mention clinical features of its overdose.

**PART – B (5 x 10 = 50 Marks)**

11 Explain general principles involved in the management of poisoning.

12 (a) Discuss the clinical features and management of acute organophophorus poisoning.
(b) Write a note on activated charcoal.

13 (a) Describe the management of tricyclic antidepressant poisoning.
(b) Write a note on overdose of NSAIDs.

14 (a) Classify poisonous snakes. Discuss the management of viper poisoning.
(b) Give a brief note on mycotoxins.

15 (a) Describe the management of mercury poisoning.
(b) Discuss the investigations in petroleum toxicity.

16 Differentiate the acute and chronic poisoning of
(a) Hallucinogens (b) Morphine

17 (a) Explain clinical applications of antidotes in detail.
(b) Enumerate the clinical features and complications of bacterial food poisoning.

18 Give a detailed note on :
(a) Amphetamine abuse
(b) Tobacco abuse

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Code No. 4271

# FACULTY OF PHARMACY

## Pharm. D (6 YDC) IV-Year (Main) Examination, July 2017

**Subject : Clinical Pharmacy**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Write a note on scope of clinical pharmacy in India.
2 Give the examples of primary, secondary and tertiary poison information resources.
3 What is the importance of medication history?
4 Give the significance of pharmacist interventions.
5 Write the normal values of Total bilirubin, unconjugated bilirubin, AST and ALT.
6 What are the various types of communication skills required in patient counseling?
7 Write a note on Naranjo adverse drug reaction probability scale?
8 How does pharmaceutical care differ from clinical pharmacy?
9 What is root cause analysis?
10 Differentiate between bias and confounding.

**PART – B (5 x 10 = 50 Marks)**

11 (a) Write a note on clinical / daily progress review.
(b) What are the goals and objectives of clinical pharmacists in ward rounds?

12 (a) Write a note on counseling aids.
(b) What information should be recorded during medication history interview?

13 Explain the steps involved in conducting Drug Utilization Evaluation.

14 (a) Explain hematological tests.
(b) What are the applications of pulmonary function tests?

15 (a) What are the advantages and disadvantages of different drug information resources?
(b) Write the systematic approach of answering drug queries.

16 (a) What are the mechanisms of Type A Adverse Drug Reactions?
(b) Write a note on role of pharmacist in ADR management.

17 Explain the types of medication errors. Write a note on prevention of medication errors.

18 (a) How is Pharmaceutical care documented?
(b) Write a note on sample size in clinical studies.

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Code No. 4273

# FACULTY OF PHARMACY

## Pharm. D (6 YDC) IV-Year (Main) Examination, July 2017

**Subject : Bio Pharmaceutics and Pharmacokinetics**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Define bioavailability and write any two objectives.
2 List the factors that influence the gastric emptying role.
3 State the pH partition hypothesis and its assumptions.
4 Why is in-vivo drug dissolution always faster than in vitro dissolution?
5 What are the characteristics of microsomal enzymes?
6 Mention various factors influencing renal excretion of drugs.
7 Write a short note on flip-flop phenomenon.
8 What do you mean by principle of superposition?
9 Why the drugs are administered in multiple doses?
10 What are the assumptions made in developing for the one compartment model?

**PART – B (5 x 10 = 50 Marks)**

11 (a) Explain briefly physiological barriers for the dissolution of drugs.
(b) Write the concept of clearance.

12 (a) What is statistical moment theory?
(b) Derive Michalis – Menton equation and give its importance.

13 (a) Write a note on drug accumulation in multiple dosing.
(b) How do you determine steady state maximum and minimum concentrations of drug following multiple oral doses?

14 Explain the mechanism of drug absorption from GIT.

15 Explain briefly protocols and methods of assessment of Bioavailability.

16 Explain conjugation reactions for elimination of drugs with suitable examples.

17 Write a detailed note on compartment model.

18 A 59 kg male received 2 mg / kg of an antibiotic orally. The plasma concentration vs time data is obtained. Assume that the drug follows one compartment open model and is completely absorbed. Calculate all possible parameters.

| Time (Hrs) | 0.25 | 0.5 | 0.75 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 4.0 | 6.0 | 8.0 | 12 | 18 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Plasma conc. (mg/ml) | 2.2 | 3.8 | 5 | 5.8 | 6.8 | 7.1 | 7.1 | 6.9 | 6.2 | 4.8 | 3.5 | 1.9 | 0.8 | 0.3 |

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**Code No. 4272**

# FACULTY OF PHARMACY

**Pharm. D (6 YDC) IV-Year (Main) Examination, July 2017**

**Subject : Biostatistics and Research Methodology**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Define and write the significance of Interventional studies.
2 What are scatter plots?
3 Find out the median from the following data
10, 15, 12, 13, 14, 14, 15, 12, 11, 13, 15
4 Write the properties of t-test.
5 Define type-I and type-II errors.
6 Write the uses of data – Range.
7 Define Incidence and prevalence.
8 Explain Null hypothesis.
9 Define parametric and non-parametric test.
10 Write the uses of standard error of mean.

**PART – B (5 x 10 = 50 Marks)**

11 Find the mean, standard deviation, variance and coefficient of variance of the following data on random blood sugar (mg) of 10 individuals recorded in hospital.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 112 | 118 | 150 | 170 | 132 | 128 | 140 | 110 | 175 | 125 |

12 Discuss the following:
(a) Mann Whitney 'U' test with example.
(b) Advantages of computerized literature retrieval

13 Performa ANOVA for the following data and find out whether means of the three samples differ significantly or not. [$F_{tab}$ at $\alpha$=0.05 = 3.9].

| Sample - I | Sample – II | Sample – III |
|---|---|---|
| 20 | 19 | 13 |
| 10 | 13 | 12 |
| 17 | 17 | 10 |
| 17 | 12 | 15 |
| 16 | 9 | 5 |

14 (a) Find the coefficient of correlation between the variables X and Y using Karl Pearson's method.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| X | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
| Y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

(b) Explain the advantages and applications of SAS software.

..2

15 Write the principle and procedure involved in unpaired t - test using suitable example.

16 Describe the role of computers in patient record data base management, in patient medication profile and inventory control in hospital pharmacy.

17 (a) The following figures shown disease count form a region over a span of 8 months. Represent the data by a pie-diagram.

| Disease | Disease count |
|---|---|
| HIV | 13 |
| Malaria | 15 |
| Diarrhea | 13 |
| Tuberculosis | 12 |
| Influenza | 17 |

(b) Write the procedure of report writing in Research methodology.

18 A certain drug was administered to 550 persons out of a total 900 persons in a certain locality to test its efficiency against cholera. The result are given below in the table. Find out the effectiveness of the drug against the disease. [tabulated value of $\psi^2$ at 6% is 3.84].

| | Infection | No-Infection |
|---|---|---|
| Drug | 300 | 300 |
| No Drug | 250 | 50 |

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**Code No. 4270**

# FACULTY OF PHARMACY

**Pharm. D (6 YDC) IV-Year (Main) Examination, July 2017**

**Subject : Hospital Pharmacy**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

**PART – A (10 x 2 = 20 Marks)**

1 Explain in brief the departmental organization of a hospital pharmacy.
2 Write about the clinical notes on hospital pharmacist in evolving health care system in India.
3 What is satellite pharmacy?
4 Give the composition of PTC.
5 What is hospital formulary?
6 Write a brief note on drug distribution.
7 Write in brief about hospital pharmacy communication.
8 What are the differences between granule and powder?
9 What is radio pharmaceutical committee?
10 Write in brief about professional relation and practices of a hospital pharmacist.

**PART – B (5 x 10 = 50 Marks)**

11 Describe in detail about the functions of various departments of hospital.

12 Define budget. Explain different divisions of budget.

13 Define PTC. Explain the role of PTC in drug safety, ADR monitoring and drug utilization review with the help of blank report / proforma respectively.

14 Write in detail about the composition and function of research and ethical committee.

15 Write the steps involved in procurement and warehousing of drug in hospital pharmacy.

16 Describe in brief the manufacture of ointments and enlist the differences in manufacturing, packaging, and labeling of ointments and creams.

17 Give a detailed account on responsibilities of pharmacist in IPD and OPD.

18 What is TPN? Write a short note on manufacturing of TPN and its significance in critically ill patients.

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**Code No. 7304**

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV-Year (Instant) Examination, January 2014

## Subject: Hospital Pharmacy

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10x2 = 20 Marks)

| | | |
|---|---|---|
| 1 | Write notes on composition of pharmacy and therapeutics committee. | 2 |
| 2 | What are the functions of inpatient pharmacist? | 2 |
| 3 | What is Hospital Pharmacy Communication News Letter? | 2 |
| 4 | Write notes on research and ethical committee. | 2 |
| 5 | What is Drug Distribution? | 2 |
| 6 | Write notes on drug information centre. | 2 |
| 7 | Write notes on total parenteral nutrition. | 2 |
| 8 | What is the pharmacist role in central sterile supply? | 2 |
| 9 | Write a brief note on distribution of narcotic substances. | 2 |
| 10 | Write notes on automatic stop orders for dangerous drugs. | 2 |

### PART – B (5 x 10 = 50 Marks)

| | | |
|---|---|---|
| 11 | Describe the classification of hospitals. | 10 |
| 12 | What is an infection control programme? Briefly explain the organization and functions of infection control committee. | 10 |
| 13 | What are the roles and responsibilities of hospital pharmacist? | 10 |
| 14 | Explain the various types of budget. | 10 |
| 15 | Explain the procedures involved in the purchase of drugs for hospital pharmacy. | 10 |
| 16 | (a) Explain the storage and handling of radio pharmaceuticals in a hospital.<br>(b) Write notes on manufacturing of ointment. | 5<br>5 |
| 17 | Write notes on unit dose drug distribution. | |
| 18 | (a) Explain the professional relationship and practices of hospital pharmacist.<br>(b) Define hospital formulary? Explain the guidelines for hospital formulary system. | 4<br>6 |

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**Code No. 7305**

# FACULTY OF PHARMACY

## Pharm.D. (6 YDC) IV Year (Instant) Examination, January 2014

## Subject: Clinical Pharmacy

**Time: 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10x2 = 20 Marks)

| | | |
|---|---|---|
| 1 | What you mean by clinical intervention? | 2 |
| 2 | What are the steps involved in medication chart interview? | 2 |
| 3 | Define SOAP protocol? | 2 |
| 4 | Mention four activities of ward round participation? | 2 |
| 5 | Mention various types of ADRs. | 2 |
| 6 | Define pharmacovigilance. | 2 |
| 7 | Mention few counseling aids. | 2 |
| 8 | Mention important counseling points while dispensing TB medication. | 2 |
| 9 | Briefly write on fluid and electrolyte balance. | 2 |
| 10 | Mention various types of medication errors. | 2 |

### PART – B (5x10 = 50 Marks)

| | | |
|---|---|---|
| 11 | Describe SOAP protocol and various steps involved in ward round participation. | 10 |
| 12 | (a) Describe various drug information sources and its advantages and disadvantages? | 6 |
| | (b) How will you evaluate primary literature? | 4 |
| 13 | Define ADR? Describe various monitoring techniques of adverse drug reaction monitoring. | 10 |
| 14 | (a) How will you design a DIC for a 500 bedded hospital? | 5 |
| | (b) Write a note on quality control of drug information services? | 5 |
| 15 | Write a note on renal function tests? Explain in detail pathophysiological conditions of kidney and renal function tests significance. | 10 |
| 16 | Write in detail the essential components of pharmaceutical care? Describe in detail patient counseling techniques. | 10 |
| 17 | Classify and describe medication errors? What are the measures to prevent medication errors? | 10 |
| 18 | Explain drug utilization review? Describe methods to combat antibiotic resistance. | 10 |

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Code No. 7308

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV – Year (Instant) Examination, January 2014

## Subject : Clinical Toxicology

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Section-A and answer any Five questions from Section-B.***

### Section – A (10 x 2 = 20 Marks)

| | | |
|---|---|---|
| 1 | Define Clinical Toxicology. | 2 |
| 2 | Differentiate between self poisoning and accidental poisoning. | 2 |
| 3 | What are the advantages and disadvantages of acetaminophen? | 2 |
| 4 | How will you identify chronic exposure of arsenic poisoning? | 2 |
| 5 | How would you identify methanol poisoning? | 2 |
| 6 | Define Antidote. Specify the antidote for Viper bite. | 2 |
| 7 | Which type of antidote is prescribed for a child in case of Venomous snakebite? | 2 |
| 8 | What are the clinical features of scorpion bite? | 2 |
| 9 | What are the alternative medicines available in the treatment of methanol poisoning? | 2 |
| 10 | Is there any evidence of carbamate poisoning contamination in the environment food and human beings. | 2 |

### Section – B (5 x 10 = 50 Marks)

| | | | |
|---|---|---|---|
| 11 | a) | What are the symptoms, signs, mechanism of action diagnosis and treatment of organo phosphorous compound poisoning. | |
| | b) | Differentiate between acute and chronic exposure of opium poisoning. | 8+2 |
| 12 | a) | Explain the mechanism and role of antidote in ethanol poisoning. | |
| | b) | Describe about toxicity and management of acetaminophen poisoning. | 5+5 |
| 13 | a) | Write down the general principles involved in the management of poisoning. | |
| | b) | How would you manage childhood lead poisoning? | 6+4 |
| 14 | Write short notes on : | | |
| | a) | GUT decontamination b) Iron poisoning | 5+5 |
| 15 | a) | Enumerate the type of organisms enter in case of food poisoning. | |
| | b) | Write a note on treatment of mushroom poisoning. | 5+5 |
| 16 | a) | List out mushroom species potentially toxic to human beings. | |
| | b) | Draw a schematic diagram pathways of lead exposure from the environment to and within man. | 6+4 |
| 17 | a) | Describe the management of chronic exposure of copper poisoning, explain the risk factors for copper poisoning. | |
| | b) | What are the signs and symptoms of copper poisoning? Add a note on how to investigate the type of poisoning. | 5+5 |
| 18 | Write short notes on : | | |
| | a) | Radiation poisoning b) Barbiturate poisoning | 5+5 |

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Code No. 7307

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV Year (Instant) Examination, January 2014

## Subject: Biopharmaceutics and Pharmacokinetics

**Time: 3 Hours** **Max.Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

**PART – A (10 x 2 = 20 Marks)**

| | | |
|---|---|---|
| 1 | What is the major mechanism of absorption of most drugs? What is the driving force for such a process? | 2 |
| 2 | What are soft drugs? Why are they considered safe and have short half life? | 2 |
| 3 | Brief notes on plateau principle? | 2 |
| 4 | Why is HSA considered a versatile protein for drug binding? | 2 |
| 5 | Define absolute and relative bioavailability. What is the basic difference between two? | 2 |
| 6 | Brief notes on limitations of multi-compartmental analysis. | 2 |
| 7 | What is flip-flop phenomen and when is it observed. | 2 |
| 8 | Write notes on MRT. | 2 |
| 9 | What is the main reason for giving a drug by slow IV infusion? | 2 |
| 10 | Define GFR and factors affecting renal excretion. | 2 |

**PART – B (5x10 = 50 Marks)**

| | | |
|---|---|---|
| 11 | Discuss the physicochemical properties of drugs affecting GI absorption with suitable examples. | 10 |
| 12 | Describe the pharmacokinetic method of estimating bioavailability using plasma sample and urine sample. | 10 |
| 13 | (a) Give possible reasons for reduction in dose of drug in elder patients.<br>(b) Write notes on randomized block design. | 5<br>5 |
| 14 | Explain the Michaleins – Menten kinetics and method to determine $K_m$ and $V_{max}$. | 10 |
| 15 | Explain the physiologic pharmacokinetic models. | 10 |
| 16 | A 70 Kg patient is to be given oubain by I.V. infusion. The drug has a half life of 22 hr, apparent $V_d$ 15.7 litres and the desired steady-state plasma concentration is 0.0002 mcg/ml. Assuming one compartment kinetics calculate (a) time required to reach 90% $C_{ss}$ (b) Infusion rate to achieve the desired $C_{ss}$ (c) loading dose to attain $C_{ss}$ rapidly (d) concentration of drug in plasma after 48 hrs from the start of infusion. | 10 |
| 17 | Explain the phenomen of drug accumulation. | 10 |
| 18 | (a) Write notes on intrinsic dissolution rate? How is it determined?<br>(b) Write notes on first pass metabolism. | 5<br>5 |

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Code No. 7306

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Instant) Examination, January 2014**

**Subject: Biostatistics and Research Methodology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Section-A and answer any Five questions from Section-B.***

## Section – A (10 x 2 = 20 Marks)

1 Define the primary Data. 2
2 What do you understand by Central Tendency? 2
3 Define the Coefficient of Variation. 2
4 How can you determine the size of the sample to be drawn? Explain. 2
5 State the principles of Experimental Design. 2
6 Explain the procedure of obtaining the Scatter Diagram. 2
7 Define the standard error. 2
8 Define Interval estimation 2
9 Define the Level of significance and Power of Test. 2
10 State the importance of SPSS in Pharmaceutical Applications. 2

## Section – B (5 x 10 = 50 Marks)

11 The details of expenditures of two companies are given below. Draw suitable graphical/diagrammatical representation and give your comments on the following data. 10

| Details of Expenditure | Company - A | Company - B |
|---|---|---|
| Rental charges | 55,000 | 50,000 |
| Electricity charges | 32,000 | 30,000 |
| Raw material charges | 2,50,000 | 3,00,000 |
| Transportation charges | 75,000 | 50,000 |
| Employees salaries | 2,75,000 | 3,00,000 |
| Miscellaneous charges | 50,000 | 35,000 |

12 Compute the standard error of mean for the following data. 10

| Class Interval | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 |
|---|---|---|---|---|---|---|---|---|
| Frequency | 2 | 10 | 22 | 25 | 25 | 22 | 10 | 2 |

13 The duration for curing by using the drug produced by the four companies on patients are given below. Test at 5% level that the average duration for curing by the drug is same. Consider the table values as ($F_{22,3}$ = 3.24 ; $F_{3,22}$ = 2.59). 10

| Companies | Days for cure | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| A | 14 | 15 | 16 | 13 | 17 | 22 | 18 | |
| B | 21 | 16 | 22 | 25 | 17 | | | |
| C | 18 | 25 | 22 | 31 | 27 | 20 | | |
| D | 23 | 25 | 26 | 28 | 25 | 21 | 31 | 25 |

14 Derive the Regression line Y on X for the following data 10

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X : | 25 | 32 | 42 | 56 | 65 | 72 | 49 | 57 | 45 | 75 |
| Y : | 32 | 40 | 38 | 45 | 70 | 56 | 40 | 65 | 50 | 72 |

15 A drug is injected to 10 patients and the increase of blood pressure is noted as : -2, -10, -6, -8, -5, -10, -5, -7, -4, -8, Test at 1% level is the drug influencing in decreasing the B.P. 10
16 State the assumptions and limitations of the Mann-Whitney U-test. Also explain its test procedure. Illustrate it with a suitable example. 10
17 State the characteristics of normal distribution. Give its importance. 10
18 State the features of statistical software SAS. Illustrate each with suitable pharmaceutical applications. 10

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Code No. 7303

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV Year (Instant) Examination, January 2014

### Subject: Pharmacotherapeutics – III

**Time: 3 Hours** **Max.Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10 x 2 = 20 Marks)

| | | |
|---|---|---|
| 1 | Write a brief note on the steps to incorporate evidence based medicine into pharmacotherapeutic decision making. | 2 |
| 2 | Write briefly about the role of phenytoin in the management of epilepsy. | 2 |
| 3 | Classify types of stroke based on the mechanism. | 2 |
| 4 | Clinical presentation of a GERD patient. | 2 |
| 5 | Write a brief note on hepatorenal syndrome. | 2 |
| 6 | Define early virologic response and sustained virologic response seen in Hepatitis C infection. | 2 |
| 7 | Write the formula for calculation of iron supplementation required in iron deficiency anemia. | 2 |
| 8 | Write the clinical features of idiopathic Parkinson's disease. | 2 |
| 9 | Write a brief note on anxiety rating scales. | 2 |
| 10 | Diagnostic criteria for schizophrenia. | 2 |

### PART – B (5 x 10 = 50 Marks)

| | | |
|---|---|---|
| 11 | (a) Etiology and clinical presentation of a patient with venous thromboembolism. | 4 |
| | (b) Zollinger Ellison syndrome and its management. | 6 |
| 12 | (a) Write in detail the pharmacological and nonpharmacological management of ascites. | 7 |
| | (b) Write a note on alcoholic liver disease. | 3 |
| 13 | (a) Write a note on different oral iron supplements and its role in anemia. | 6 |
| | (b) Adverse effects and monitoring of warfarin treatment. | 4 |
| 14 | (a) Write in detail the etiopathogenesis and management of Crohn's disease. | 7 |
| | (b) Pharmacological management of Alzheimer's disease. | 3 |
| 15 | (a) Represent the pharmacological management of migraine with an algorithm. | 7 |
| | (b) Elaborate on the different opioids and their role in pain management. | 3 |
| 16 | Elaborate on pharmacologic strategies used for primary and secondary stroke prevention. | 10 |
| 17 | Write short notes on: | |
| | a) Any one drug induced liver injury. | 5 |
| | b) Any one drug induced blood disorder. | 5 |
| 18 | (a) Write about the etiology and risk factors for Peptic ulcer disease. | 4 |
| | (b) Management of stress related mucosal bleeding. | 6 |

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**Code No. 2752 / M**

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV Year (Main) Examination, September 2013

### Subject: Pharmacotherapeutics – III

**Time: 3 Hours** **Max.Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10x2 = 20 Marks)

| | | |
|---|---|---|
| 1. | Etiology of Venous thromboembolism. | 2 |
| 2. | Differentiate between gastric and duodenal ulcers. | 2 |
| 3. | Write briefly about the management of hepatic encephalopathy. | 2 |
| 4. | List out the different hepatitis viruses with their mode of transmission. | 2 |
| 5. | Write a brief note on hemolytic anemia. | 2 |
| 6. | Write the staging of Parkinsons according to Hoehn and Yahr scale. | 2 |
| 7. | Clinical presentation of a patient with generalized anxiety disorder. | 2 |
| 8. | Write the pharmacological management for obstructive sleep apnea. | 2 |
| 9. | Classify different types of pain with examples. | 2 |
| 10. | Differentiate the characteristics of tension and cluster headaches. | 2 |

### PART – B (5x10 = 50 Marks)

| | | |
|---|---|---|
| 11.(a) | Write briefly the significance of validity and the types of bias in evidenced based medicine. | 4 |
| (b) | Elaborate on the pathophysiologic mechanisms involved in epilepsy. | 6 |
| 12.(a) | Prehospital management of stroke. | 5 |
| (b) | Etiopathogenesis of GERD. | 5 |
| 13.(a) | Give a schematic representation of the pathogenesis of pulmonary hypertension, varices and variceal hemorrhage. | 6 |
| (b) | Write a note on jaundice and its management. | 4 |
| 14. | Discuss in detail the etiology, prevention and pharmacological management of Hepatitis B. | 10 |
| 15.(a) | Write in detail the role of Carbidopa/levodopa and its motor complications in the management of Parkinson's disease. | 6 |
| (b) | Write a note on narcolepsy and its management. | 4 |
| 16.(a) | Elaborate on the adverse effects of antipsychotic agents used in management of schizophrenia. | 6 |
| (b) | Clinical presentation of a patient with migraine headache. | 4 |
| 17.(a) | Elaborate the role of 5 amino salicylate derivatives and their various formulations in the treatment of IBD. | 7 |
| (b) | Different scales used to evaluate patients with Alzheimer's disease. | 3 |
| 18.(a) | Elaborate on heparin induced thrombocytopenia and its management. | 6 |
| (b) | Use and adverse effects of benzodiazepines in generalized anxiety disorder. | 4 |

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**Code No. 2754/ M**

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV Year (Main) Examination, September 2013

### Subject: Clinical Pharmacy

**Time: 3 Hours** **Max.Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10x2 = 20 Marks)

1. Distinguish between medication errors and adverse drug events. 2
2. Write a brief note on objective of DUE. 2
3. Write a brief note on drug information. 2
4. What information would you consider to assist in the detection of a possible ADR? 2
5. Give an account of counselling aids. 2
6. Differentiate between open-ended and close ended questionnaires. 2
7. Write a brief note on scope of pharmaco-vigilance. 2
8. Write a brief note on systematic approach in answering DI queries. 2
9. Describe the term “Medication History”. 2
10. Write a brief note on “Role of Emetics” in poison management. 2

### PART – B (5x10 = 50 Marks)

11. Write short notes on:
    a) Reporting of adverse drug reaction. 5
    b) Types of drug utilization review. 5

12.(a) List out the goals and objectives for clinical pharmacist on ward rounds. 5
    (b) Explain about a scope for clinical pharmacy practice in India. 5

13.(a) Describe various steps involved in the counselling process. 5
    (b) Discuss the basic requirement for the drug in formation centre. 5

14. Write short notes on:
    a) Pulmonary Function Tests 5
    b) Microbiological culture Sensitivity Tests 5

15.(a) Explain the importance of patient case history in therapeutic management. 5
    (b) What are the principles of pharmaceutical care? 5

16.(a) What are the functions of poison information centre? 6
    (b) How should drug information centres be organized in hospital? 4

17.(a) Describe the case study method. 4
    (b) Enumerate the general guidelines for ward round participation. 6

18.(a) List out the types of drug related problems which are commonly identified during drug therapy review. 5
    (b) Explain about causality relationship between a suspected drug and reaction. 5

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Code No. 2756 / M

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main) Examination, Sept 2013**

**Subject : Bio-Pharmaceutics and Pharmacokinetics**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Section-A and answer any Five questions from Section-B.***

**Section – A (10 x 2 = 20 Marks)**

1. Differentiate the terms biopharmaceutics and pharmacokinetics. 2
2. Vitamin B complex preparations are advised to be taken after meals. Explain. 2
3. Amorphous form has greater solubility as compared to that of crystalline form, Why? 2
4. Define bioavailability. List two of its applications. 2
5. List the reasons for the failure of IVIVC Intravenous catheters. 2
6. Describe the term 'open' with the help of one-compartment open model. 2
7. Define volume of distribution and give its significance. 2
8. Drug-protein binding increases renal excretion of drug. True/False. Explain. 2
9. Explain the terms 'biotransformation' and 'detoxification'. 2
10. Give two reasons for observing nonlinear pharmacokinetics at high doses of drugs. 2

**Section – B (5 x 10 = 50 Marks)**

11. Explain in detail on the objectives and considerations in bioavailability study. 10

12.a) Describe the significance of non-renal excretion of drugs.
b) Write the importance of conjugation reactions. 7+3

13. Describe two methods for determining elimination half life of a drug in one compartment model from urine analysis. 10

14. Write the characteristics of drug absorption mechanisms in GIT with suitable examples. 10

15.a) Explain the importance of oxidative reactions in metabolism. Describe the role of cytochrome P450 in oxidation-reduction cycle.
b) Write the significance of AUC. 7+3

16. Describe saturation kinetics with reasons, implications and examples. 10

17.a) Describe the role of physiological barriers for distribution of drugs.
b) Explain the role of polymorphism on drug absorption. 6+4

18. A dose of 325mg of a new drug injected Intra venously to healthy volunteer and the following data was obtained. 10

| Time (hrs) | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 |
|---|---|---|---|---|---|---|---|---|
| Plasma conc'n (mcg/ml) | 18.3 | 10.1 | 5.8 | 3.3 | 1.8 | 1 | 0.31 | 0.12 |

Calculate various pharmacokinetic parameters.

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Code No. 2757 / M

# FACULTY OF PHARMACY

## Pharm. D. (6 YDC) IV Year (Main) Examination, Sept 2013

## Subject: Clinical Toxicology

**Time: 3 Hours** **Max.Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10x2 = 20 Marks)

1. Write a note on dimercaprol.
2. Write the factors influencing elimination enhancement.
3. Write a note on pralidoxime.
4. Write the role of Tannic acid in gut decontamination.
5. Write a note on disulfiram.
6. Name the adverse effects of NSAIDS.
7. Write a note on paracetamal poisoning.
8. Write a note on mycotoxins.
9. Write the clinical symptoms of copper poisoning.
10. Write a note on LSD.



### PART – B (5x10 = 50 Marks)

11.(a) Write the general principles involved in the management of poisoning.
(b) Write a note on supportive care in clinical toxicology.

12.(a) Write the clinical symptoms and management of benzodiazepines poisoning.
(b) Describe in brief about toxicokinetics.

13.(a) Write in brief about radiation poisoning.
(b) Write the clinical symptoms and management of inorganic acids and alkali poisoning

14.(a) Describe in brief about lead poisoning.
(b) Write the clinical symptoms and management of salicylates poisoning.

15.(a) Write a note on families of venomous snake.
(b) Write the clinical symptoms and management of snake poisoning.

16. Describe in detail about food poisoning.

17. Describe in detail about substance abuse.

18.(a) Write a note on arthropod bites and sting.
(b) Write a note on mushrooms poisoning.

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**Code No. 2755 / M**

# FACULTY OF PHARMACY

**Pharm. D. (6 YDC) IV – Year (Main) Examination, September 2013**

**Subject : Biostatistics and Research Methodology**

**Time : 3 hours** **Max. Marks : 70**

***Note: Answer all questions from Section-A and answer any Five questions from Section-B.***

**Section – A (10 x 2 = 20 Marks)**

1. How do you use computer for inventory control in a hospital? 2
2. Name and write briefly about any two software's that are used in corporate hospitals. 2
3. Write the advantages of computerized literature retrieval. 2
4. What is the difference between an observational study and an interventional study? 2
5. Write about different types of presentation of data. 2
6. Two samples of human males yield the following results. 2

| | Sample 1 | Sample 2 |
|---|---|---|
| Age | 25 years | 11 years |
| Mean weight | 145 pounds | 80 pounds |
| Standard deviation | 10 pounds | 10 pounds |

Find which samples shows more variation.

7. What is standard deviation? Explain its important properties in pharmacy. 2
8. Write about the significance of Null hypothesis and alternative hypothesis. 2
9. Write down the applications of t-test. 2
10. Enumerate the advantages of graphical representation of data. 2

**Section – B (5 x 10 = 50 Marks)**

11. Define Sample? And write about different sampling methods in detail. 10

12.a) Distinguish between research and research methodology. 5
b) Write in brief about incidence and prevalence. 5

13. Use of computers in maintaining patient medication profiles and management of patient management reports in a hospital. 10

14. Write about use drug information storage and retrieval. 10

15. Tablets were weighed and assayed with the following results. 10

| Weight | 200 | 205 | 203 | 201 | 195 | 203 | 198 | 200 | 190 | 205 | 207 | 210 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assay | 10.0 | 10.1 | 10.0 | 10.1 | 9.9 | 10.1 | 9.9 | 10.0 | 9.6 | 10.2 | 10.2 | 10.3 |

i) Calculate the correlation coefficient between weight and assay of tablets.
ii) Test the significance of correlation coefficient at 5% level of significance.

16. Briefly discuss the following : 10
a) Mann Whitney U test b) Linear Regression Analysis

17. A certain stimulus administered to each of 12 patients resulted in the following change in blood pressure 10
5, 2, 8, -1, 3, 0, -2, 1, 5, 0, 4, 6
can it be concluded that the stimulus will in general be accompanied by an increase in blood pressure. (The value of t at 5% Level of Significance for 10 degree of freedom is 2.228).

18. Explain briefly the one-way classification technique of analysis of variance (ANOVA) with example. 10

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16 Mention in details about Bioequivalence study protocol for Extended Release dosage forms. (10)

17 (a) Explain the design of dosage regimen. Add a note an assumption made in design of dosage regimen. (5)

(b) The equation best fits the plasma level time curve after I.V. bolus dose of a drug 100 mg is $C=7.14e^{-0.173t}$. Calculate Vd, $t_{1/2}$, AUC and Total systemic clearance. (5)

18 A 50 kg male received 2mg/kg of a drug orally. The following plasma concentration vs time data is obtained. Assume the drug follows one compartment open model and it is completely absorbed. Calculate all possible pharmacokinetic parameters. (10)

| Time (Hr) | 0.25 | 0.5 | 0.75 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 12 | 18 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Plasma Conc.(μg/ml) | 2.2 | 3.8 | 5 | 5.8 | 6.8 | 7.1 | 7.1 | 6.9 | 6.2 | 4.8 | 3.5 | 1.9 | 0.8 | 0.3 |

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**Code No. 6135 / PB**

# FACULTY OF PHARMACY

**Pharm. D I-Year (3-YDC) (Post Baccalaureate) (Main & Backlog) Examination, August 2016**

**Subject : Bio Pharmaceutics & Pharmacokinetics**

**Time : 3 Hours** **Max. Marks: 70**

***Note: Answer all questions from Part - A and answer any five questions from Part-B.***

## PART – A (10 x 2 = 20 Marks)

1 With examples, Name the various drug binding sites on HSA.
2 Explain, Greater the free drug concentration of drug in plasma, larger its volume of distribution.
3 Estimate the creatinine clearance of a 20 years old, 70 kg man with serum creatinine value of 2.0 mg %. What is the renal function of a such patient?
4 What are the different sites of presystemic metabolism of orally administered drugs?
5 Define Drug Accumulation and list the factors influencing renal clearance of drugs.
6 List out the reasons for failure of IVIVC.
7 Layout a Latin square cross over design for bioequivalence study on three formulations-A, B and C in six volunteers.
8 Define orange book objectives of bioequivalence studies.
9 Significance and determination of MRT and $t_{1/2}$.
10 Define the terms absolute bioavailability and relative bioavailability and derive the relationship.

## PART – B (5 x 10 = 50 Marks)

11 Write note on :
(a) pH-Partition Theory (5)
(b) Physiological barriers to distribution of drugs (5)

12 (a) How do you calculate $K_E$ from urinary excretion data by using Sigma-Minus method. (5)
(b) Following a 500 mg I.V. bolus dose of a drug to a 50 kg subject, the plasma drug concentration was found to decline biexponentially. The equation that best described the drug kinetic was : $C = 57e^{-14t}+43e^{-3t}$. Calculate the following parameters Vc, Vp, Vd.ss, Vd.area, $k_{12}$, $k_{21}$ and $K_E$ etc. (5)

13 What is linear and Non-Linear pharamcokinetics ? Explain the role of Michaelis Menton kinetics in Non-Linear pharamacokinetics. (10)

14 (a) Explain the pharmacokinetic parameters of a drug which follows two compartment open model when given by intravenous bolus with relevant mathematical equations. (6)
(b) Estimate the Ka by Loo-Riegelman method. (4)

15 Explain details about Phase-I reactions of biotransformation with suitable examples. (10)



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16 Mention in details about Bioequivalence study protocol for Extended Release dosage forms. (10)

17 (a) Explain the design of dosage regimen. Add a note an assumption made in design of dosage regimen. (5)

(b) The equation best fits the plasma level time curve after I.V. bolus dose of a drug 100 mg is $C=7.14e^{-0.173t}$. Calculate Vd, $t_{1/2}$, AUC and Total systemic clearance. (5)

18 A 50 kg male received 2mg/kg of a drug orally. The following plasma concentration vs time data is obtained. Assume the drug follows one compartment open model and it is completely absorbed. Calculate all possible pharmacokinetic parameters. (10)

| Time (Hr) | 0.25 | 0.5 | 0.75 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 12 | 18 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Plasma Conc.(μg/ml) | 2.2 | 3.8 | 5 | 5.8 | 6.8 | 7.1 | 7.1 | 6.9 | 6.2 | 4.8 | 3.5 | 1.9 | 0.8 | 0.3 |

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**Code No. 2753 / M**

# FACULTY OF PHARMACY

## Pharm. D (6 YDC) IV Year (Main) Examination, Sept 2013

## Subject: Hospital Pharmacy

**Time: 3 Hours** **Max.Marks: 70**

***Note: Answer all questions from Part A. Answer any five questions from Part B.***

### PART – A (10x2 = 20 Marks)

| | | |
|---|---|---|
| 1. | Define Hospital Pharmacy. | 2 |
| 2. | Define inventory control. | 2 |
| 3. | Write a note on infection committee. | 2 |
| 4. | Write a note on manufacturing of creams. | 2 |
| 5. | Define hospital and its functions. | 2 |
| 6. | Write brief notes on management of materials. | 2 |
| 7. | What is the importance of hospital pharmacist in packaging of Radio Pharmaceuticals? | 2 |
| 8. | What is pharmacy procedure manual? | 2 |
| 9. | Describe the objective of pharmacy and therapeutics committee. | 2 |
| 10. | Write notes on role of the pharmacist in drug procurements. | 2 |

### PART – B (5x10 = 50 Marks)

| | | |
|---|---|---|
| 11.(a) | Write notes on role of PTC in developing emergency drug list. | 5 |
| (b) | Write notes on out patient pharmacist responsibilities. | 5 |
| 12. | Define sterile area? Describe the lay out of sterile product area and how the parenterals are evaluated. | 10 |
| 13. | What is hospital formulary and explain its content, preparation and distribution in a typical hospital. | 10 |
| 14. | Explain the purpose of various hospital committees and describe the role of pharmacist in hospital committees. | 10 |
| 15. | Describe the various sources of data for drug information and explain the role of pharmacist in it. | 10 |
| 16. | Explain the various methods of inventory control. | 10 |
| 17.(a) | Write detail note on the role of hospital pharmacist in continuous professional development program. | 5 |
| (b) | Write on preparation of small volume parenterals. | 5 |
| 18. | Explain the distribution of narcotic supply and controlled substance. | 10 |

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