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.6395/PB

FACULTY OF PHARMACY

Pharm. D. (3 YDC) I – Year (Post Baccalaureate) (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.
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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.6382

FACULTY OF PHARMACY

Pharm-D(6-YDC) II-Year (Main & Backlog) Examination, December 2020

Subject : Patho physiology

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

PART- A

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

1 Write the deficiency symptoms of vitamin D

2 Discuss the mechanism involved in rejection of allograft.

3 Mention the abnormalities in lipoproteinaemia.

4 Write the symptoms in irritable bowel syndrome.

5 Define the terms of Invasion and metastasis.

6 Explain the types of shocks with mechanism.

7 Discuss the pathophysiology of tuberculosis.

8 Write the clinical features of chronic renal failure.

9 Write the biological effects of radiation.

10 Explain the factors influencing healing of wounds.

PART- B

Note: Answer any Four questions. **(4x10=40 Marks)**

11 What are different types of chronic inflammation? Discuss in detail about cellular events in a chronic inflammation.

12 Describe the structure of MHC (Major histocampatability complex) with a neat labelled diagram.

13 Write a note on pathogenesis of **i)** Hypertension **ii)** stroke.

14 Mention different autoimmune disorders. Discuss the Pathogenesis of Asthma & COPD.

15 Discuss the pathogenesis of Diabetes Mellitus and how Advanced Glycation End Products formed.

16 Explain the Etiology and Pathogenesis of cancer.

17 Discuss the Etiopathogenesis of AIDS.

18 Explain the Pathogenesis of Starvation and obesity.

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Code. No: 6389

FACULTY OF PHARMACY

Pharm D (6-YDC) III-Year (Main & Backlog) Examination, December 2020

Subject : Pharmaceutical Analysis

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

PART- A

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

1. Name the different factors affecting fluorescence.
2. Define Frontal analysis and elution analysis in column chromatography.
3. Explain the different types of development techniques of paper chromatography.
4. Define nebulisation and residual current.
5. What are the different sources of quality variation.
6. Give the Ilkovics equation.
7. What are the different sample handling techniques in IR spectroscopy.
8. What are the different carrier gases used in the Gas chromatography?
9. Write the principle involved in Atomic absorption spectroscopy?
10. What are the different methods for detecting the end point in potentiometry?

PART- B

Note: Answer any Four questions. **(4x10=40 Marks)**

11. Discuss the Principle and Instrumentation of Infrared spectroscopy.
12. Write short notes on
    a. ISO 9000 b. Concept of statistical control.
13. a. Describe the Derivatisation techniques in Gas chromatography.
    b. Explain the different factors affecting the fluorescence and add a note on quenching
14. Explain the instrumentation and applications of Flame Photometry.
15. a. Derive Beers- Lamberts law, applications and its deviation.
    b. Explain the different applications of NMR spectroscopy.
16. a. Differentiate between DSC and DTA.
    b. Explain the advantages and disadvantages of Amperometry over Potentiometry
17. Enumerate the ICH guidelines for quality assurance.
18. Explain the different conductometric titrations and their applications.

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Code No.6375

FACULTY OF PHARMACY

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

Subject : Pharmaceutics

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

PART- A

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

1. What is the difference between infusion and decoction?
2. Write a brief account on effervescent granules.
3. Write the principle involved in the preparation of Soap solution with cresol.
4. Explain the difference between emulsions and suspensions.
5. What will be the dose for a child of 5 years if the adult dose of a drug is 400 mg?
6. Calculate the amount of 95% alcohol required to prepare 400 ml; of 45% alcohol.
7. Define Isotonic solutions. What is its significance?
8. What are collodions?
9. Write the importance of flavours in pharmaceutical formulations.
10. Define incompatibility. What are different types of incompatibilities?

PART- B

Note: Answer any Four questions. **(4x10=40 Marks)**

11. Explain the parts of prescription with typical example.
12. Write a note on (a) U.S.P. (b) I.P.
13. (a) Write a note on development of pharmacy profession in India.
    (b) Explain the different methods of Mixing Powders.
14. (a) Differentiate between Liniments and Lotions.
    (b) Classify different dosage forms with example.
15. (a) Write short note on formulation of suspension.
    (b) What are the instabilities of emulsions and describe the factors that improve the stability of emulsions?
16. Write in detail about the steps involved in Percolation Process.
17. Write short notes on classification of bases and general methods of preparation of suppositories.
18. (a) Write a note on Medicated bandages.
    (b) Explain different physical Incompatibilities.

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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. 6396/PB

FACULTY OF PHARMACY

Pharm. D. (3 YDC) I – Year (Post Baccalaureate) (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.
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    (b) Write a short note on Causality assessment scales.
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    (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.6383

FACULTY OF PHARMACY

Pharm-D(6-YDC) II-Year (Main & Backlog) Examination, December 2020

Subject : Pharmaceutical Microbiology

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

PART- A

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

1 Write short notes on Koch's Postulates

2 Write about Rickettsiae

3 Explain growth phase of Bacteriophage

4 Write about kingdom Monera

5 Explain passive agglutination

6 Write causative organism and mode of transmission of meningitis.

7 Define Bacteriostatic and Bacteriocide

8 Write the principle involved in simple staining technique

9 Write the composition of Nutrient agar Medium.

10 Write about Lyophilization.

PART- B

Note: Answer any Four questions. **(4x10=40 Marks)**

11 Write in detail about contributions of Robert Koch and Louis Pasture in the field of Microbiology.

12 What is growth? Explain different phases of growth of bacteria and synchronous growth.

13 Explain different methods of isolation of Aerobic and Anerobic bacteria and explain viable count method.

14 Explain different methods of Heat sterilization.

15 Explain Evaluation of disinfectants by Redial – Walker and Chick – Martin test.

16 Explain about Humoral and cell mediated Immunity.

17 Explain about western blotting and southern blotting techniques.

18 Explain about Microbiological assay of Penicillin according to I.P.

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Code. No: 6390

FACULTY OF PHARMACY

Pharm D (6-YDC) III-Year (Main & Backlog) Examination, December 2020

Subject : Pharmacotherapeutics-II

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

PART- A

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

1 Write about specific diagnosis for T.B.

2 Mention types and clinical presentation of syphilis.

3 Write the American college of rheumatology diagnostic criteria for hip and knee Osteoarthritis.

4 classify urinary tract infections.

5 Give clinical presentation of eczema.

6 What are the commonly used regimens for treatment of malaria?

7 Write about the etiology for breast cancer.

8 Write a brief note on spondylitis.

9 Write a note on amino glycoside induced renal disorders.

10 What are the commonly occurring protozoal infections

PART- B

Note: Answer any Four questions. **(4x10=40 Marks)**

11 a) What are the antibiotics used prophylactically for Gastro intestinal surgeries?
b) Write a note on pathogens involved in the management of infective endocarditis.

12 a) Write a note on Respiratory tract infections
b) Explain in detail about the causes, clinical presentation and treatment for LRTI.

13 Write the pathophysiology for HIV. Write a brief note on symptoms and diagnosis for HIV.

14 a) Write a note on Acute tubular necrosis along with its prevention.
b) Write about the treatment options for acute renal failure.

15 Write a note on hemodialysis and write about the advantages and disadvantages of hemodialysis and peritoneal dialysis.

16 Write a note on the various chemotherapeutic agents inducing nausea and vomiting and discuss its management.

17 Write a note on management
a) SLE b) Gout

18 Write a note on etiopathogenesis of
a) Impetigo b) Psoriasis

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Code No.6376

FACULTY OF PHARMACY

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

Subject: Medicinal Biochemistry

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

PART- A

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

1. Define co-enzymes and their role in biochemical process.
2. Write the biological significance of cyclic AMP.
3. Define Gluconeogenesis and its significance.
4. Write about Galactose tolerance test.
5. Write about defective metabolism of lipids.
6. Define oxidative phosphorylation and write its significance.
7. Explain about nitrogen balance.
8. Write a note on Kidney function tests.
9. Define and classify Enzymes.
10. How to determine electrolytes in body fluids?

PART- B

Note: Answer any Four questions. **(4x10=40 Marks)**

11. Explain TCA cycle and Glycogenolysis with energetics.
12. Explain β-oxidation of fatty acids with energetics.
13. Discuss about factors effecting enzyme activity and write about enzyme inhibition.
14. Discuss about Urea cycle and its metabolic disorders.
15. Discuss about Purine and Pyrimidine nucleotide metabolism.
16. Discuss about various Liver function tests in detail.
17. Discuss in detail about RIA and ELISA.
18. Discuss about Election transport chain mechanism regulation and inhibition.

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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.

…2

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.6397/PB

FACULTY OF PHARMACY

Pharm. D. (3 YDC) I – Year (Post Baccalaureate) (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.
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    (b) Write the advantages and use of computerized Literature Retrieval.
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    (Given Critical value: 2.262)

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    (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.6384

FACULTY OF PHARMACY

Pharm-D (6-YDC) II-Year (Main & Backlog) Examination, December 2020

Subject : Pharmacognosy and Phytopharmaceuticals

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

PART-A

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

1 Define **i)**Pharmacognosy**ii)** Crude drugs

2 Note on Ergastic substances.

3 Define **i)** Denaturation**ii)**Isoelectric point.

4 Powder micro scopy of Podophyllum.

5 Write a note on Natural pesticides.

6. Chemical test for Senna and Starch.

7 Sinoda Test and Baljet test.

8 Powder micro scopy of Cinnamon. Microscopy

9 Write the sources, active constituents and uses of Honey.

10 Differences between Gums and mucilage.

PART-B

Note : Answer any FOUR questions. **(4x10=40 Marks)**

11 a) Enumerate the classification crude drugs, explain Pharmacological Crude drugs.
b) Write the Cultivation collection of Cinchona.

12 Explain in briefly Exo and Endo genius Factor Affecting Cultivation of crude drugs.

13 a) Define Carbohydrates and colour Reaction for Carbohydrates.
b) Write the sources, active constituents and uses Agar and Starch

14 Explain different methods of adulteration of crude drugs.

15 a) Define and Classify Volatile oil, Explain one methods of Extraction of Volatile Oil.
b) Write the sources, active constituents and uses Ginger.

16 Draw T S of Clove and Fennel.

17 a) Define and Classify Surgical Dressing add a note on Cotton.
b) Write the I P methods of Analysis of Lipids.

18 a) Define and classify Protein, chemical test for Protein.
b) Write the Estimation of Protein.

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Code No.6384

FACULTY OF PHARMACY

Pharm-D (6-YDC) II-Year (Main & Backlog) Examination, December 2020

Subject : Pharmacognosy and Phytopharmaceuticals

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

PART-A

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

1 Define **i)**Pharmacognosy**ii)** Crude drugs

2 Note on Ergastic substances.

3 Define **i)** Denaturation**ii)**Isoelectric point.

4 Powder micro scopy of Podophyllum.

5 Write a note on Natural pesticides.

6. Chemical test for Senna and Starch.

7 Sinoda Test and Baljet test.

8 Powder micro scopy of Cinnamon. Microscopy

9 Write the sources, active constituents and uses of Honey.

10 Differences between Gums and mucilage.

PART-B

Note : Answer any FOUR questions. **(4x10=40 Marks)**

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b) Write the Cultivation collection of Cinchona.

12 Explain in briefly Exo and Endo genius Factor Affecting Cultivation of crude drugs.

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b) Write the sources, active constituents and uses Agar and Starch

14 Explain different methods of adulteration of crude drugs.

15 a) Define and Classify Volatile oil, Explain one methods of Extraction of Volatile Oil.
b) Write the sources, active constituents and uses Ginger.

16 Draw T S of Clove and Fennel.

17 a) Define and Classify Surgical Dressing add a note on Cotton.
b) Write the I P methods of Analysis of Lipids.

18 a) Define and classify Protein, chemical test for Protein.
b) Write the Estimation of Protein.

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Code. No: 6391

FACULTY OF PHARMACY

Pharm D (6-YDC) III-Year (Main & Backlog) Examination, December 2020

Subject : Pharmaceutical Jurisprudence

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

Part – A

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

1. What is Loan licence?
2. Define Cosmetics as per D & C Act?
3. Write the objectives of Drug & Magic Remedies Act?
4. Define Spurious drug?
5. Write the function of Government Analyst?
6. Write the Objectives of essential commodities Act 1955?
7. Give the labelling requirements for Opthalmic preparations.
8. What are 'Patent' & 'Patentee' under Patent & Design Act?
9. Write the constitution of Animal Ethical Committee?
10. What are Non Prescription drugs? Give its examples.

Part – B

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

11. Explain the Constitution & functions of PCI?
12. Explain in detail on prevention of cruelty of Animal Act 1960?
13. Explain in detail Design, Construction & Manufacturing in Bonded Laboratory?
14. Explain in detail about the Schedule M of Drugs & Cosmetic Act?
15. Give the Various Offences & Penalties mentioned under NDPS Act?
16. What is a Patent? Write in detail the procedure for getting Patent.
17. Explain in detail about the Schedule Y of Drugs & Cosmetic Act?
18. What are the Powers and Duties of Drug Inspector?

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Code No.6377

FACULTY OF PHARMACY

Pharm. D. (6 YDC) I – Year (Main & Backlog) Examination, December2020

Subject : Pharmaceutical Organic Chemistry

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

PART-A

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

1. Define polarity of bonds and Dipole moment with examples.
2. Write the structure and IUPAC names of the following
   (a) Isopropyl alcohol (b) Isobutane.
3. What is Free radical? Classify and give the order of stability.
4. Write the reaction of propene with HBr in the presence and absence of peroxide.
5. Write a short note on hyper conjugation.
6. Explain the concept of aromaticity and Huckels rule.
7. What are activating and deactivating groups give examples?
8. Write a note on acidity of Carboxylic acids.
9. Compare the basicity among ammonia, Ethylamine, tertiary butylamine and dimethylamine.
10. Explain o-nitrophenol is more acidic than phenol.

PART-B

Note : Answer any four questions. **(4x10=40 Marks)**

11. (a) What are cycloalkanes? Explain Bayers theory for Stability of cycloalkanes.
    (b) Discuss the molecular orbital structure of cycloalkanes.
12. What are nucleophilic aliphatic substitution reactions? Explain the mechanism, kinetics, factors affecting, stereochemistry for these reactions with example.
13. (a) Give the mechanism of Dehydrohalogenation of alkylhalides.
    (b) Give four differences between E_1 and E_2.
14. Write the mechanism involved in the following:
    (a) Fries Migration.
    (b) Witting reaction.
15. (a) Explain 1, 2 and 1, 4 additions in conjugated dienes with mechanism.
    (b) Explain the stability of conjugated dienes.
16. What are electrophilic aromatic substitution reations? Discuss the reaction and mechanism involved in Nitration and Sulphonation of Benzene.
17. Write the mechanism involved in the following:
    (a) Cannizzaro reaction.
    (b) Reformatsky's reaction.
18. (a) Discuss the mechanism of Riemer-Tiemenn's reaction.
    (b) Write the Sandmeyer's reaction.

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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.6398/PB

FACULTY OF PHARMACY

Pharm. D. (3 YDC) I – Year (Post Baccalaureate) (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.6385

FACULTY OF PHARMACY

Pharm - D (6-YDC) II-Year (Main & Backlog) Examination, December 2020

Subject :Pharmacology-I

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

PART-A

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

1 Explain in brief about Tachyphylaxis
2 Write a note on Anti-tussives.
3 Differentiate between general anaesthetics and local anaesthetics.
4 Describe the mechanism of action of Morphine
5 Classify anti-arrhythmic agents.
6 Give two examples of Phase-II reactions/Conjugation Reactions.
7 Define Anti-Psychotic drugs. Give examples.
8 Enlist the drugs used to treat Myasthenia gravis.
9 Explain the pharmacological actions of Prostaglandins.
10 Discuss the significance of cognition enhancers.

PART-B

Note : Answer any Four questions. **(4x10=40 Marks)**

11 Classify Symphathomimetics with examples. Write the pharmacological actions, adverse effects and therapeutic uses of any two classes of drugs.

12 a) Classify NSAIDs. Explain the mechanism of action of Aspirin and paracetamol.
b) Write a note on Mood stabilizers.

13 a) Explain in detail about treatment for Organophosphorus poisoning
b) Describe in detail about factors modifying drug action

14 a) Describe the drug therapy for Congestive Hear Failure (CHF)
b) Classify Anti-anginal agents

15 Write the classification of β-blockers. Explain the mechanism of action, adverse effects and therapeutic uses of any two drugs.

16 a) Classify the drugs used in the treatment of Asthma.
b) Write a note on Expectorants and Nasal decongestants

17 Define Oral Hypoglycaemic agents? Classify them with examples. Write the mechanism of action of any three classes of drugs.

18 a) Classify anti-histamines with examples. Write the pharmacological actions, adverse effects and therapeutic uses of any two drugs.
b) Write a note on 5-HT_3, antagonists.

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Code. No: 6392

FACULTY OF PHARMACY

Pharm D (6-YDC) III-Year (Main & Backlog) Examination, December 2020

Subject : Medicinal Chemistry

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

PART- A

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

1 Give the structure of cotrimoxazole

2 Write the synthesis of Isoniazid

3 Write the structure and mechanism of action of potassium clavulanate

4 Define vasodilators and draw the structures of any two vasodilators

5 Classify alkylating agents Explain the MOA, and structure of any two alkylating drugs.

6 Define prodrug. Give two examples of prodrugs and their active forms.

7 Write the structures of any two diagnostic agents and its uses

8 Write the structure and mechanism of action of acetazolamide and propylthiouracil

9 What is Hyper lipoproteinaemia? Give the list of drugs to treat

10 Give the structures of any two selective COX-2 inhibitors.

PART- B

Note: Answer any Four questions. **(4x10 = 40 Marks)**

11 a) Write a short note on QSAR approaches in drugs design.
b) Write a short note on prodrugs and its applications.

12 a) Discuss the SAR of Tetracycline antibiotics with examples
b) Write the structure, mechanism of action and uses of chloramphenicol.

13 Classify anti malarial agent with suitable examples. Write the synthesis of Chloroquine

14 a) Define & Classify Antihelmenthic drugs Write the structure and mechanism of action of albendazole
b) Give the synthesis of chlorambucil brucil

15 a) Write the SAR of sulfadrugs with examples.
b) Give the synthesis of Trimethoprim and Dapsone

16 a) Write in detail about Calcium channel blockers with structures
b) Give the synthesis of Acetazolamide and Verapamil.

17 a) Write the structures and therapeutic uses of adrenocorticoids
b) Give the structure and uses of testosterone and progesterone

18 a) Write the structures and mechanism of action of thiazide diuretics?
b) Write a short notes on Insulin preparations.

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Code No. 6379

FACULTY OF PHARMACY

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

Subject: Pharmaceutical Inorganic Chemistry

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

Part – A

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

1. Mention the uses of Hydrogen peroxide.
2. What are anti-caries agents? Give examples.
3. Define antidote. What antidote is used in heavy metal poisoning?
4. Write the preparation of 0.1N Perchloric acid.
5. Write the composition of oral rehydration salt.
6. Differentiate Iodometry and Iodimetry.
7. Define Co-precipitation and post precipitation.
8. Write the mechanism of action and uses of sodium bisulphite.
9. Define Pharmaceutical aids and classify with examples.
10. Give one preparation method and uses of nitrous oxide.

Part – B

Note: Answer any Four questions. **(4x10 = 40 Marks)**

11. Explain in detail the neutralization curve for the following titrations.
    (a) Strong acid – Strong Base.
    (b) Strong aid – Weak base.

12. (a) Explain the limit test of sulphates.
    (b) Write the preparation and uses of oxygen.

13. Define Redox Reaction. Explain the preparation and standardization and application of any one redox titrations.

14. (a) Explain the various theories of indicators.
    (b) Explain the various end point determination methods in redox titration.

15. (a) Write a note on various types of solvents in non-aqueous titrations.
    (b) Write a note on volhards method.

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16. (a) Write a note on essential trace elements.
    (b) Write a note on clinical applications of radiopharmaceuticals.

17. Define antimicrobial agents. Write a note on the preparation, mechanism of action and uses of any two antimicrobial agents.

18. Write the method of preparation, assay and uses of calcium gluconate and aluminium hydroxide gel.

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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.6399/PB

FACULTY OF PHARMACY

Pharm. D. (3 YDC) I – Year (Post Baccalaureate) (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.6386

FACULTY OF PHARMACY

Pharm-D (6-YDC) II-Year (Main & Backlog) Examination, December 2020

Subject : Community Pharmacy

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

PART-A

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

1 What are the objectives of stocking?

2 What do you mean by lead time?

3 Mention two counselling information while dispensing anti TB drugs.

4 How prescriptions are handled?

5 What is rational use of medicines?

6 Write the clinical manifestations of typhoid.

7 Define OTC medication.

8 What is schedule N?

9 Define community pharmacy.

10 Define health according to WHO.

PART-B

Note : Answer any Four questions. **(4x10=40 Marks)**

11 Give the principles of practice of pharmacy. Reproduce the pharmacy oath as per pharmacy council of India?

12 Explain various types of Inventory control techniques used for the procurement of medicines.

13 Define pharmaceutical care? What are roles and responsibilities of community pharmacists in providing pharmaceutical care?

14 Explain pathophysiology, symptoms and prevention of malaria.

15 a) Write a note on various records to be maintained in retail medical store.
b) What are the roles and responsibilities of community pharmacist.

16 What are the various parts of the prescription? Explain the legality of prescriptions?

17 What are the barriers of counselling? Explain different stages of counselling

18 Explain pathophysiology and drug therapy to worm infestations and diarrhea?

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Code. No: 6393

FACULTY OF PHARMACY

Pharm D (6-YDC) III-Year (Main & Backlog) Examination, December 2020

Subject : Pharmaceutical Formulations

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

PART-A

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

1. Explain the Bloom strength.
2. Describe Pyrogen test for Parenterals.
3. Discuss the permeation enhancers for the Buccal drug delivery system.
4. Differentiate Macro and micro Emulsions.
5. Define Zeta potential? Give its significance in stability of dispersion system.
6. Define the following tableting problems with remedies
   a) Mottling b) Capping and lamination
7. Explain content uniformity test for HGC.
8. Write a note on Ocular inserts.
9. Write a note on preservatives used in Ophthalmic preparations.
10. Define Displacement value? Mention its significance in the preparation of suppositories.

PART-B

Note : Answer any Four questions. **(4x10=40 Marks)**

11. Write about the following Novel drug delivery systems
    a) Nasal b) Rectal drug delivery system

12. a) Describe the different Granulation techniques commonly employed in the manufacturing of tablets.
    b) Add a note on different Ointment based in formulation of Ointments.

13. Explain briefly about the Sugar coating and Film coating process.

14. Explain formulation additives of Parenterals with examples.

15. Give different approaches for Transdermal drug delivery system.

16. a) Write in detail about formulation of Solutions with examples.
    b) What are the different types of containers for packing of parenterals.

17. a) Write a note on theories of Emulsification.
    b) Write about the (Q C) Quality Control tests for Ophthalmic preparations.

18. a) Describe Rotary die process for manufacturing of SGC.
    b) Write a note on production facilities required for Parenterals.

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