

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmacotherapeutics - II

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 brief note on newer diagnosis tests for tuberculosis.
- 2 How is pyelonephritis treated?
- 3 What are the commonly used regimens for treatment of malaria?
- 4 Write a note on xanthine oxidase inhibitors and its role in management of Gout.
- 5 Give clinical presentation of eczema.
- 6 Write a brief note on spondylitis.
- 7 What are the treatment options for acute renal failure?
- 8 What are the risk factors for Breast cancer?
- 9 Define and classify Leukemias.
- 10 Define community acquired and hospital acquired pneumonia.

PART – B (5 x 10 = 50 Marks)

- 11 (a) Discuss the treatment of candidiasis and Aspergillosis.
(b) What are the antibiotics used prophylactically for Gastro intestinal surgeries?
- 12 Write notes on : (a) SLE (b) Scabies
- 13 (a) Write a note on clinical presentation and diagnosis of Rheumatoid Arthritis.
(b) Write the principle behind peritoneal dialysis along with a note on its complications.
- 14 (a) Explain the pathogens involved and the management of infective endocarditis.
(b) Explain the role of integrase inhibitors and entry inhibitors in the treatment of HIV infection along with examples.
- 15 (a) Write a note on Acute tubular necrosis along with its prevention.
(b) Discuss the complications of chronic kidney diseases.
- 16 (a) Give a brief account on the vaccination for influenza.
(b) Elaborate on the treatment of malaria.
- 17 (a) Write a note on treatment of early Breast cancer.
(b) Write a note on the various chemotherapeutic agents inducing nausea and vomiting.
- 18 (a) Describe the various strategies used to treat Osteoarthritis.
(b) Write the pathogen involved and the pharmacotherapy for Gonorrhea.

FACULTY OF PHARMACY

Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmaceutical Jurisprudence

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 F and F1 Schedules according to D & C Act.
- 2 Give the labeling requirement for hair dyes containing dyes, colors and pigment.
- 3 What is the definition drug spurious according to D & C Act?
- 4 What are 'Animal' and 'Cruelty' under Prevention of Cruelty to Animal Act?
- 5 What is Loan license?
- 6 What are the categories of alcoholic preparations which exempt from excise duty according to Excise Duties Act?
- 7 Enlist the separate kind of licenses for selling of drug in 'Pharmacy' and 'Chemist and druggist shop'.
- 8 Mention the formula to calculate Retail Price under Drug (Price Control) Order 1995.
- 9 What are 'Patent' and 'Patentee' under Patent and Design Act?
- 10 What is the definition of Opium according to D & C Act?

PART – B (5 x 10 = 50 Marks)

- 11 Describe in detail on Wholesale of drug.
- 12 What are the classes of drugs which are exempted from provision of Chapter IV and D & C Act?
- 13 Write about administrative agencies under NDPS Act and Rules.
- 14 Write the constitution and function of State as well as Joint State Pharmacy Council.
- 15 Discuss about the Registration of Designs under Design Act.
- 16 Discuss the warehousing of alcoholic preparation.
- 17 Describe in detail on Central Drug Laboratory.
- 18 What are the objectives of National Drug Policies 2002?

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmacology - II

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 are anticoagulants? Write their therapeutic uses.
- 2 Write a note on Fibrinolytics.
- 3 Explain about osmotic diuretics.
- 4 Explain about Acetazolamide.
- 5 Classify antifungal agent with example.
- 6 Classify anticancer drugs.
- 7 Explain about suicidal bags of the cell.
- 8 What are the principles involved in toxicology?
- 9 Explain oncogenes and tumor suppressor genes.
- 10 Define mutations, deletions and amplifications.

PART – B (5 x 10 = 50 Marks)

- 11 What are the basic principles of transcription in pro and eukaryotes and discuss the factors that regulate transcription?
- 12 What are the different toxicity studies? Explain how to design a protocol for chronic toxicity studies.
- 13 Explain the mechanism of action, pharmacological activity uses and adverse effects of Loop Diuretics.
- 14 What are signal transduction pathways explain any four of them?
- 15 Write the mechanism of action, therapeutic uses and adverse effects of
 - (a) Penicillins
 - (b) Tetracyclines
- 16 Explain in detail about chemotherapy of tuberculosis.
- 17 What is Recombinant DNA technology? Write their processes and applications.
- 18 Describe about gene sequencing and mapping.

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmaceutical Analysis

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 the principle involved in gel filtration.
- 2 Define linearity and robustness.
- 3 Name different type of detectors use in GLC.
- 4 Distinguish between HPLC and HPTLC.
- 5 Define Hook's law and write its equation.
- 6 Write about the reference electrode used in potentiometry.
- 7 Explain the principle of separation involved in ion exchange chromatography
- 8 Write the composition of karlfischer reagent.
- 9 Explain different ions in mass spectroscopy.
- 10 Write the principle involved in AAS.

PART – B (5 x 10 = 50 Marks)

- 11 Write short note on :
 - (a) ICH – guidelines
 - (b) Regulatory control
- 12 Discuss the principle and instrumentation of IR spectroscopy.
- 13 Explain the principle and instrumentation of gel electrophoresis.
- 14 Discuss the principle and different amperometric titration.
- 15 (a) Write about different analyzers used in Mass spectroscopy.
(b) Define chemical shift and list the various factors affecting it.
- 16 Write the instrumentation and applications of HPTLC.
- 17 Explain the principle and development technique of column chromatography.
- 18 Describe the construction and working of X-Ray diffraction methods.

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Medicinal Chemistry

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 are various parameter used in QSAR?
- 2 Give two structure of Loop diuretics.
- 3 What is application of combinational chemistry?
- 4 What are diagnostic Agents? Give one example with an application?
- 5 What is the action of anti ineffective drugs?
- 6 Some drug containing an ester group are inactive invitro but once the drug absorbed invivo. what term is used for such drug (i) post drug (ii) predrug (iii) Metabolite (iv) pro-drug
- 7 Define antithrombolytic.
- 8 Give popular brand name of following drugs.
(i) Cefadroxil (ii) Tinadazole (iii) ofloxacin (iv) melformin
- 9 Sketch the structure and medicinal use of chloramphenicol.
- 10 Write the mechanism of action of anti-angina agent.

PART – B (5 x 10 = 50 Marks)

- 11 (a) Write a note Antiscabes and antipediculars agent.
(b) Write the SAR of tetracycline.
- 12 Write the synthesis, mechanism of action of following drug (i) cefadroxil (ii) Isomazy
(iii) ampicillin (iv) metronidazole
- 13 (a) Classify sulphonamides. Give one example with structure for each class.
(b) Outline the synthesis of (i) Enalapris (ii) Mechlor ethamin
- 14 (a) Write the SAR of angio-tension - II antagonist.
(b) Write a note on antithyroid agents.
- 15 (a) Give a brief account on steroidal hormones.
(b) Write the synthesis of any two drugs belonging to class anti-malarial.
- 16 (a) Classify diuretics with examples. Write the synthesis of acetozolmide.
(b) Write a note on macrocide agent.
- 17 (a) Classify antihyper lidemic agents and write the synthesis any one of them.
(b) Outline the synthesis of Tolbutamide and metformin.
- 18 (a) Write a note on local infective agents.
(b) Classify the pro-drug and enlist the ideal property.

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Instant) Examination, January 2014****Subject : Pharmaceutical Analysis****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 fluorescence and phosphorescence phenomena. | 2 |
| 2 | Give different types of fuel gases and oxidants used in flame photometry technique. | 2 |
| 3 | Explain Beer-Lambert's law. | 2 |
| 4 | Define chemical shift and give different scales for its measurement. | 2 |
| 5 | Explain Bathochromic and Hypsochromic shifts with examples. | 2 |
| 6 | Write Ilkovic's equation and explain. | 2 |
| 7 | Give advantages of amperometric titrations over potentiometry. | 2 |
| 8 | Explain current-voltage curve in polarography. | 2 |
| 9 | Give Nernst equation for calculation of Electrode potentials. | 2 |
| 10 | Write differences between HPLC and HPTLC techniques. | 2 |

PART – B (5 x 10 = 50 Marks)

- | | | |
|----|--|----|
| 11 | Write ICH guidelines for validation of HPLC methods | 10 |
| 12 | Describe the instrumentation and working of IR-spectrophotometer with a neat sketch. | 10 |
| 13 | Discuss the principles of separation by electrophoresis and give details of gel electrophoresis. | 10 |
| 14 | Describe the different components of a differential scanning calorimeter | 10 |
| 15 | Discuss the principle and theory involved in NMR and ESR techniques | 10 |
| 16 | Explain in detail about the detectors used in gas chromatography. | 10 |
| 17 | a) Explain optical Rotary dispersion and circular dichroism. | 5 |
| | b) Write the principles of Mass spectroscopy and about different types of peaks in mass spectrum | 5 |
| 18 | Write about single component methods for analysis of medicinal substances by UV-visible spectrophotometry. | 10 |

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Instant) Examination, January 2014****Subject : Medicinal Chemistry****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 combinational chemistry? Write its application in the drug discovery. 2
- 2 Classify antimalarials with one example for each class. 2
- 3 Give structures, IUPAC name of any two sulphonamides used as antibacterials. 2
- 4 Write a note on β -lactamase inhibitors. 2
- 5 Write structure, mechanism of action of any one coumarin derivative as anticoagulant. 2
- 6 Write a note on angiotensin-II antagonists. 2
- 7 Write structure, mechanism of action of any two drugs belonging to sulphonylureas as oral hypoglycaemic agents. 2
- 8 Write the structures of any two diagnostic agents in evaluating kidney function. 2
- 9 Exemplify any four steroidal anti-inflammatory drugs. Write structures of any two. 2
- 10 Give popular brand name for the following : 2
 - i) Cephelexin ii) Chloroquin iii) Metformin iv) Ketoconazole

PART – B (5 x 10 = 50 Marks)

- 11 a) Define QSAR and explain about Hansch and Free-Wilson analysis. 6
- b) Write a note on loop diuretics. 4
- 12 a) Write the applications of prodrug with suitable examples. 4
- b) Outline the synthesis, mechanism of action, uses of the following : 2 x 3 = 6
 - i) Ciprofloxacin ii) Metronidazole
- 13 a) Give the synthesis, mechanism of action, uses of the following : 2 x 3 = 6
 - i) Chloroquin ii) Ketoconazole
- b) Write a note on aminoglycoside antibiotics. 4
- 14 a) Classify anthelmintic drugs with one example for each class. 2
- b) Outline the synthesis, mechanism of action, uses of the following :
 - i) Isoniazid ii) Albendazole iii) Methotrexate 2.5+2.5+3
- 15 a) Classify diuretics with one example for each class. 2
- b) Write a note on :
 - i) Calcium channel blockers 5
 - ii) Bile acid sequestrants as antihyperlipidemic agents 3
- 16 Write a note on :
 - i) anti anginal agents
 - ii) Biguanides as oral hypoglycaemic agents
 - iii) Androgens and anabolic agents 4+3+3
- 17 a) Classify alkylating agents with one example for each class. Write the synthesis, mechanism of action of any one drug. 4
- b) Outline the synthesis, mechanism of action, uses of the following :
 - i) Captopril ii) Triamterene 2x3=6
- 18 Write a note on :
 - i) Antithyroid drugs ii) Anti AIDS agents
 - iii) Local anti infective agents 3+4+3

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Instant) Examination, January 2014****Subject : Pharmacotherapeutics - II****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 monitoring parameters for drugs used in T.B. 2
2. List out any two drugs which can lead to acute tubular necrosis and obstructive nephropathy. 2
3. Differentiate Rheumatoid arthritis from osteoarthritis. 2
4. Mention the etiology for psoriasis. 2
5. Write specific diagnosis for T.B. 2
6. List out the opportunistic infections in HIV. 2
7. Write a note on clinical presentation of rheumatoid arthritis. 2
8. List out diagnostic criteria for viral infections. 2
9. Write the epidemiology and etiology for breast cancer. 2
10. Write the pathophysiology for chemotherapy induced nausea and vomiting. 2

PART – B (5 x 10 = 50 Marks)

11. Write a note on :
 - a) Management of Malaria 5
 - b) Management of Leukemia 5
12. Write a note on :
 - a) Management of fungal infections 6
 - b) Pathophysiology of Meningitis 4
13. Write a note on :
 - a) LRTI 6
 - b) Pathophysiology of Endocarditis 4
- 14.a) Write the management for complications in CKD. 6
- b) Write a note on clinical presentation and complications of malaria. 4
- 15.a) Write a note on clinical presentation and pathophysiology of SLE. 7
- b) Mention types and clinical presentation of syphilis. 3
- 16.a) Write the management for drug induced renal disease. 6
- b) Write the clinical presentation and management of scabies. 4
17. Write a note on :
 - a) Etiopathogenesis and Management of T.B. 7
 - b) Pathophysiology of Psoriasis 3
18. Write a note on :
 - a) Management of Septicemia 4
 - b) Pathophysiology and management of Rheumatoid arthritis 6

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Instant) Examination, January 2014****Subject : Pharmaceutical Formulations****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 Enumerate the advantages of soft gelatin capsules. 2
- 2 List out the different types of tablets. 2
- 3 Differentiate between dosator and dosing disc for capsule filling. 2
- 4 Define suspension and emulsion with examples of preparation for each. 2
- 5 Differentiate between creaming and cracking. 2
- 6 Explain the leak test for parenterals. 2
- 7 Distinguish between flocculated and deflocculated suspensions. 2
- 8 List out different types of waters used in pharmaceutical dosage form preparations. 2
- 9 What is displacement value? How is it calculated? 2
- 10 Compare and contrast between conventional and controlled release dosage forms with suitable examples. 2

PART – B (5 x 10 = 50 Marks)

- 11 Discuss about the different granulation techniques for the preparation of tablets. 10
- 12 a) Distinguish between diffusible and indiffusible solids. 2
- b) Write the procedure for the preparation of calamine lotion and its evaluation by sedimentation ratio. 8
- 13 a) Write about the following evaluation tests for parenteral dosage forms. 6
- i) In vivo pyrogen testing ii) Clarity test
- b) Add a note on working of laminar air flow. 4
- 14 Define the following controlled drug delivery systems 10
- i) Transdermal ii) Ocular iii) Rectal iv) Buccal v) Implants
- 15 Describe the different types of ointment bases used with their advantages and limitations. 10
- 16 Discuss about the types of packaging materials used and types of packing of pharmaceutical dosage forms. 10
- 17 Write about the preparation of suppository with examples. 10
- 18 Explain the steps involved in sugar coating technique with the compositions of coating liquids at each steps. 10

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmacotherapeutics - II

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 brief note on newer diagnosis tests for tuberculosis.
- 2 How is pyelonephritis treated?
- 3 What are the commonly used regimens for treatment of malaria?
- 4 Write a note on xanthine oxidase inhibitors and its role in management of Gout.
- 5 Give clinical presentation of eczema.
- 6 Write a brief note on spondylitis.
- 7 What are the treatment options for acute renal failure?
- 8 What are the risk factors for Breast cancer?
- 9 Define and classify Leukemias.
- 10 Define community acquired and hospital acquired pneumonia.

PART – B (5 x 10 = 50 Marks)

- 11 (a) Discuss the treatment of candidiasis and Aspergillosis.
(b) What are the antibiotics used prophylactically for Gastro intestinal surgeries?
- 12 Write notes on : (a) SLE (b) Scabies
- 13 (a) Write a note on clinical presentation and diagnosis of Rheumatoid Arthritis.
(b) Write the principle behind peritoneal dialysis along with a note on its complications.
- 14 (a) Explain the pathogens involved and the management of infective endocarditis.
(b) Explain the role of integrase inhibitors and entry inhibitors in the treatment of HIV infection along with examples.
- 15 (a) Write a note on Acute tubular necrosis along with its prevention.
(b) Discuss the complications of chronic kidney diseases.
- 16 (a) Give a brief account on the vaccination for influenza.
(b) Elaborate on the treatment of malaria.
- 17 (a) Write a note on treatment of early Breast cancer.
(b) Write a note on the various chemotherapeutic agents inducing nausea and vomiting.
- 18 (a) Describe the various strategies used to treat Osteoarthritis.
(b) Write the pathogen involved and the pharmacotherapy for Gonorrhea.

FACULTY OF PHARMACY

Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmaceutical Jurisprudence

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 F and F1 Schedules according to D & C Act.
- 2 Give the labeling requirement for hair dyes containing dyes, colors and pigment.
- 3 What is the definition drug spurious according to D & C Act?
- 4 What are 'Animal' and 'Cruelty' under Prevention of Cruelty to Animal Act?
- 5 What is Loan license?
- 6 What are the categories of alcoholic preparations which exempt from excise duty according to Excise Duties Act?
- 7 Enlist the separate kind of licenses for selling of drug in 'Pharmacy' and 'Chemist and druggist shop'.
- 8 Mention the formula to calculate Retail Price under Drug (Price Control) Order 1995.
- 9 What are 'Patent' and 'Patentee' under Patent and Design Act?
- 10 What is the definition of Opium according to D & C Act?

PART – B (5 x 10 = 50 Marks)

- 11 Describe in detail on Wholesale of drug.
- 12 What are the classes of drugs which are exempted from provision of Chapter IV and D & C Act?
- 13 Write about administrative agencies under NDPS Act and Rules.
- 14 Write the constitution and function of State as well as Joint State Pharmacy Council.
- 15 Discuss about the Registration of Designs under Design Act.
- 16 Discuss the warehousing of alcoholic preparation.
- 17 Describe in detail on Central Drug Laboratory.
- 18 What are the objectives of National Drug Policies 2002?

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmacology - II

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 are anticoagulants? Write their therapeutic uses.
- 2 Write a note on Fibrinolytics.
- 3 Explain about osmotic diuretics.
- 4 Explain about Acetazolamide.
- 5 Classify antifungal agent with example.
- 6 Classify anticancer drugs.
- 7 Explain about suicidal bags of the cell.
- 8 What are the principles involved in toxicology?
- 9 Explain oncogenes and tumor suppressor genes.
- 10 Define mutations, deletions and amplifications.

PART – B (5 x 10 = 50 Marks)

- 11 What are the basic principles of transcription in pro and eukaryotes and discuss the factors that regulate transcription?
- 12 What are the different toxicity studies? Explain how to design a protocol for chronic toxicity studies.
- 13 Explain the mechanism of action, pharmacological activity uses and adverse effects of Loop Diuretics.
- 14 What are signal transduction pathways explain any four of them?
- 15 Write the mechanism of action, therapeutic uses and adverse effects of
 - (a) Penicillins
 - (b) Tetracyclines
- 16 Explain in detail about chemotherapy of tuberculosis.
- 17 What is Recombinant DNA technology? Write their processes and applications.
- 18 Describe about gene sequencing and mapping.

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Pharmaceutical Analysis

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 the principle involved in gel filtration.
- 2 Define linearity and robustness.
- 3 Name different type of detectors use in GLC.
- 4 Distinguish between HPLC and HPTLC.
- 5 Define Hook's law and write its equation.
- 6 Write about the reference electrode used in potentiometry.
- 7 Explain the principle of separation involved in ion exchange chromatography
- 8 Write the composition of karlfischer reagent.
- 9 Explain different ions in mass spectroscopy.
- 10 Write the principle involved in AAS.

PART – B (5 x 10 = 50 Marks)

- 11 Write short note on :
 - (a) ICH – guidelines
 - (b) Regulatory control
- 12 Discuss the principle and instrumentation of IR spectroscopy.
- 13 Explain the principle and instrumentation of gel electrophoresis.
- 14 Discuss the principle and different amperometric titration.
- 15 (a) Write about different analyzers used in Mass spectroscopy.
(b) Define chemical shift and list the various factors affecting it.
- 16 Write the instrumentation and applications of HPTLC.
- 17 Explain the principle and development technique of column chromatography.
- 18 Describe the construction and working of X-Ray diffraction methods.

FACULTY OF PHARMACY
Pharm. D (6 YDC) III-Year (Main) Examination, July 2017

Subject : Medicinal Chemistry

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 are various parameter used in QSAR?
- 2 Give two structure of Loop diuretics.
- 3 What is application of combinational chemistry?
- 4 What are diagnostic Agents? Give one example with an application?
- 5 What is the action of anti ineffective drugs?
- 6 Some drug containing an ester group are inactive invitro but once the drug absorbed invivo. what term is used for such drug (i) post drug (ii) predrug (iii) Metabolite (iv) pro-drug
- 7 Define antithrombolytic.
- 8 Give popular brand name of following drugs.
(i) Cefadroxil (ii) Tinadazole (iii) ofloxacin (iv) melformin
- 9 Sketch the structure and medicinal use of chloramphenicol.
- 10 Write the mechanism of action of anti-angina agent.

PART – B (5 x 10 = 50 Marks)

- 11 (a) Write a note Antiscabes and antipediculars agent.
(b) Write the SAR of tetracycline.
- 12 Write the synthesis, mechanism of action of following drug (i) cefadroxil (ii) Isomazy
(iii) ampicillin (iv) metronidazole
- 13 (a) Classify sulphonamides. Give one example with structure for each class.
(b) Outline the synthesis of (i) Enalapris (ii) Mechlor ethamin
- 14 (a) Write the SAR of angio-tension - II antagonist.
(b) Write a note on antithyroid agents.
- 15 (a) Give a brief account on steroidal hormones.
(b) Write the synthesis of any two drugs belonging to class anti-malarial.
- 16 (a) Classify diuretics with examples. Write the synthesis of acetozolmide.
(b) Write a note on macrocide agent.
- 17 (a) Classify antihyper lidemic agents and write the synthesis any one of them.
(b) Outline the synthesis of Tolbutamide and metformin.
- 18 (a) Write a note on local infective agents.
(b) Classify the pro-drug and enlist the ideal property.

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Main) Examination, September 2013****Subject : Pharmacotherapeutics – II****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 etiology for endocarditis? 2
2. Write a brief note on symptoms and diagnosis for HIV. 2
3. What are the adverse effects of chemotherapy and radiation? 2
4. Write a note on Biological DMARDS and its complications. 2
5. Write the American college of rheumatology diagnostic criteria for hip and knee osteoarthritis. 2
6. What are the risk factors for breast cancer? 2
7. Mention the types of Eczema. 2
8. Classify Leukemias. 2
9. Write the monitoring parameters for chronic kidney disease. 2
10. Define SLE and spondylitis. 2

PART – B (5 x 10 = 50 Marks)

11. Write note on
 - a) Management of psoriasis 6
 - b) Etiopathogenesis of impetigo 4
12. a) Write a note on clinical presentation and management of breast cancer. 7
 b) Write a brief note on hospital acquired pneumonia. 3
13. a) Describe the etiopathogenesis for osteoarthritis. 5
 b) Discuss pharmacological management of gastroenteritis. 5
14. a) Discuss the management of UTI. 7
 b) Discuss the management of chemotherapy induced nausea and vomiting. 3
15. a) Write the pathophysiology for HIV. 5
 b) Write a note on fungal infections. 5
16. a) Write the guidelines for rational use of antibiotics. 4
 b) Write a note on surgical prophylaxis of antibiotics for various surgeries. 6
17. a) Write the pathophysiology for septicemia. 6
 b) Discuss the management of gout. 4
18. a) Write a note on hemodialysis. 6
 b) Mention the advantages and disadvantages of hemodialysis and peritoneal dialysis. 4

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Main) Examination, September / October 2013****Subject : Medicinal Chemistry****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 bioprecursor prodrug. 2
2. Give structure, mechanism of action and use of any one antifungal antibiotic. 2
3. What are anticoagulants? Write structure, mechanism of action of any one drug. 2
4. Write structures, IUPAC name of any two antiseptics. 2
5. Classify antihelmentnic drugs with one example for each class. 2
6. List out any four antitubercular drugs. Write structure, mechanism of action of any one drug. 2
7. What are diagnostic agents? Write the structures of any two. 2
8. Write a note on antiscabies agents. 2
9. Write the structure of any two anti-tubercular agents. 2
10. Give popular brand name for the following drugs. 2
 - i) Ciprofloxacin ii) Glimeperide iii) Furosemide
 - iv) Amoxicillin and clavulinic acid

PART – B (5 x 10 = 50 Marks)

- 11.a) What is Prodrug? Write their classification based on the functional groups. 4
- b) Discuss SAR of Quinolones as antibacterials. 3
- c) Give synthesis, mechanism of action of Norfloxacin. 3
12. Write a note on the following with special reference to their chemistry
 - i) Tetracyclines ii) β -blockers as antihypertensives 2 x 5 = 10
13. Outline the synthesis, mechanism of action, uses of the following : 4 x 2.5 = 10
 - i) Isoniazid ii) Tinidazole iii) Sulphamethoxazole iv) Pyrimethamine
14. Write a note on the following : 4+3+3
 - i) Semisynthetic Penicillins ii) Thiazide diuretics iii) Antianginal agents
- 15.a) Classify oral hypoglycaemic agents with one example for each class. 2.5
- b) Outline synthesis, mechanism of action of the following :
 - i) Glibenclamide ii) Furosemide iii) Clofibrate 3 x 2.5 = 7.5
- 16.a) Write the structures, mechanism of action, therapeutic uses of any four anticancer agents from different class. 6
- b) Write a note on antiviral drugs. 4
- 17.a) Classify antihypertensives with one example for each class. 2
- b) Write synthesis, mechanism of action, uses of the following : 2 x 3 = 6
 - i) Clonidine ii) Diltiazem
- c) Write structure, mechanism of action, uses of Artether. 2
18. Write a note on :
 - i) Oral contraceptives ii) Antithyroid drugs
 - iii) Class I antiarrhythmic agents 4+3+3

FACULTY OF PHARMACY

Pharm D. (6 YDC) III – Year (Main) Examination, September 2013

Subject : Pharmacology – II**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 erythropoietin. 2
2. Explain about thiazide diuretics. 2
3. Write the adverse effects of aminoglycoside antibiotics. 2
4. Name the causative organism for malaria and giardiasis. 2
5. Classify anticancer agents. 2
6. Write a note on immunostimulants. 2
7. Explain about LD₅₀. 2
8. Write a note on P38 kinase. 2
9. Write the significance of paracrine and autocrine cell communications. 2
10. Write a note on tumor suppressor genes. 2

PART – B (5 x 10 = 50 Marks)

11. Write the pharmacology thrombolytic and anticoagulants. 10
12. Explain in brief about pharmacology of antidiuretics. 10
13. Explain in detail about antifungal agents. 10
- 14.a) Classify antiviral agents. 5
- b) Write the pharmacology of penicillins and polypeptide antibiotics. 5
15. Describe in detail about DNA replication. 10
16. Describe in detail about protein synthesis. 10
17. Describe in detail about determination sub acute and chronic toxicity. 10
18. Write in detail about 10
 - a) Transcription factors
 - b) Gene therapy

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Main) Examination, September 2013****Subject : Pharmaceutical Analysis****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 different factors effecting fluorescence phenomenon. 2
2. Explain different types of peaks in mass spectrum. 2
3. Give pharmaceutical applications on DSC technique. 2
4. State and explain Beer-Lamberts law. 2
5. Write the principle involved in conductometric titration of strong acid Vs strong base. 2
6. Write about sampling of solids in IR spectroscopy. 2
7. Give advantages and disadvantages of Hydrogen Electrode. 2
8. Explain about different derivatization techniques in gas chromatography. 2
9. Define retardation factor and how do you calculate. 2
10. Define validation and give the importance of validation of analytical methods. 2

PART – B (5 x 10 = 50 Marks)

11. Describe the calibration procedure of UV-visible spectrophotometers. 10
12. Write about different types of detectors used in HPLC chromatograph. 10
13. Discuss the principles and applications of flame photometry technique. 10
- 14.a) Write about different types of vibrations in IR spectroscopy. 5
b) Give applications of fluorimetry. 5
- 15.a) Give description and working of DME. 5
b) Write its advantages and disadvantages. 5
- 16.a) Write the principles and applications of DTA. 5
b) Make a note on X-ray diffraction patterns. 5
- 17.a) Explain different methods for measurement of potential and pH. 5
b) List out different types of Indicator and reference electrodes used in potentiometric titrations. 5
18. Discuss the principles and theory involved in NMR and ESR techniques. 10

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Main) Examination, September 2013****Subject : Pharmaceutical Jurisprudence****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. Define Spurious drugs. 2
2. What is loan license? 2
3. Write the constitution of Animal Ethical Committee. 2
4. Give the labeling requirement for schedule H drug. 2
5. Define cosmetic as per D & C Act. 2
6. Write the objective of Essential Commodity Act 1955. 2
7. What is E.R.? 2
8. Give the qualification of Drug Inspector. 2
9. What is schedule X and Schedule Y. 2
10. What are non-prescription drugs? Give its examples. 2

PART – B (5 x 10 = 50 Marks)

11. Explain in detail, design, construction and manufacturing in bonded lab. 10
12. Describe the constitution and function of Pharmacy Council of India. 10
13. Define Ethics. Write a note on pharmacist in relation to his job. 10
14. What are the objective of DPCO? Explain the calculation of retail price of drug formulation. 10
15. Write a short note on :
 - a) Drug Enquiry Committee 5
 - b) Central Drug Laboratory 5
16. Give the various offences and penalties mentioned under Narcotic and Psychotropic substances Act and Rules. 10
17. Define Patent. Explain the non-patentable and patentable invention. 10
18. What are the objective and target of National Drug Policy? 10

FACULTY OF PHARMACY**Pharm D. (6 YDC) III – Year (Main) Examination, September / October 2013****Subject : Pharmaceutical Formulations****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. Describe the weight variation test for hard gelatin capsules. 2
2. Give the use of tablet coating and the types of coatings. 2
3. Describe the disintegration test for enteric coated tablets. 2
4. Define flocculation, coalescence and granulation. 2
5. List the quality control tests of emulsions. 2
6. Describe the LAL test for parenterals. 2
7. Define creams, ointments, pastes and gels. 2
8. List out the different types of glasses with their purpose of use in pharmaceutical packaging. 2
9. Define transdermal and implant systems. 2
10. Define Isotonicity? Give its application in parenterals. 2

PART – B (5 x 10 = 50 Marks)

11. Define the following tableting problems with the solution to overcome. 10
 - i) Picking and sticking ii) Mottling iii) Orange peel effect
 - iv) Capping and Lamination
12. Discuss the preparation of soft gelatin capsules with a neat diagram. 10
- 13.a) Describe the preparation of emulsion with the following methods. 7
 - i) Bottle method ii) Wet gum method iii) Dry gum method
- b) Explain about the freeze-thaw cycle for evaluation of emulsions. 3
14. Discuss about the different suppository bases with their advantages and limitations. 10
- 15.a) Describe the general considerations for the preparation of eye ointments. 6
 - b) Add a note on preparation of eye ointment. 4
- 16.a) Write a note on theories of emulsification. 4
 - b) Discuss the principle and method of preparation of cold cream. 6
17. List out the different types of oral controlled release systems with their mechanism of drug release. 10
- 18.a) Differentiate between large volume and small volume parenterals. 5
 - b) Write about the different containers used for parenterals. 5