

## FACULTY OF PHARMACY

Pharm D III Year (6 YDC) (Main & Backlog) Examination, September 2023  
Subject: Pharmaceutical Jurisprudence

Time: 3 Hours

Max. Marks: 70

### PART-A

**Note: Answer all the questions.**

**(10 x 2 = 20 Marks)**

1. What are the Objectives of Pharmacy Act 1948?
2. What is Schedule P & Schedule Y as per Drug & Cosmetic Act?
3. What are the different types of IPR?
4. What is Repacking license?
5. Write the function of Drug Consultative Committee?
6. Define Drug & Magic Remedies Act.
7. Give the labelling requirements for Schedule H drug.
8. What are Prescription & Non Prescription drugs with examples?
9. Write the Objectives of essential commodities Act 1955?
10. Write the functions of government analyst?

### PART-B

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

11. Explain the Constitution & functions of PCI.
12. Explain about the Schedule N of Drugs & Cosmetic Act 1940.
13. Explain the Construction of Bonded & Non-Bonded Laboratory.
14. Explain the code of pharmaceutical ethics.
15. Explain in detail objectives and targets of National Drug Policies 2002.
16. Explain cultivation, production and manufacturing of Opium under NDPS Act.
17. Give the various offences and penalties mentioned under NDPS Act and Rules.

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**FACULTY OF PHARMACY**

**Pharm D III-Year (6 YDC) (Main & Backlog) Examination, September 2023**  
**Subject: Pharmaceutical Analysis**

**Time: 3 Hours**

**Max. Marks: 70**

**PART - A**

**Note: Answer all the questions.**

**(10 x 2 = 20 Marks)**

1. Write the different factors effecting fluorescence phenomenon.
2. Define validation and give the importance of validation of analytical methods.
3. Distinguish between HPLC and HPTLC.
4. Define the terms (a) Residual current                      (b) Diffusion current.
5. Write Ilkovic's equation and explain?
6. Write the principle involved in AAS.
7. Explain Bathochromic and Hypsochromic shifts with examples.
8. Give the applications of x-ray diffraction.
9. Write about the reference standard used in NMR.
10. Give the principle involved in Thin Layer Chromatography.

**PART - B**

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

11. Write ICH guidelines for validation of HPLC methods.
12. Discuss the principle and instrumentation of IR spectroscopy.
13. Add a note on the instrumentation and applications of UV- spectrophotometer.
14. Explain the theory and instrumentation in flame photometry.
15. Explain in detail about the detectors used in gas chromatography.
16. Describe the construction and working of DSC and DTA.
17. Discuss different electrodes used in potentiometric titration.

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## FACULTY OF PHARMACY

Pharm D III-Year (6 YDC) (Main & Backlog) Examination, October 2023  
Subject: Pharmaceutical Formulations

Time: 3 Hours

Max. Marks: 70

### PART - A

Note: Answer all the questions.

(10 x 2 = 20 Marks)

1. Mention the various vehicles used in preparation of parenteral with examples.
2. Define displacement value and mention its importance.
3. What are suspending agents? Give suitable examples.
4. Write a note on LAL test.
5. Differentiate between sugar coating and film coating.
6. What are the differences between soft and hard gelatin capsules?
7. Define flocculation and coalescence.
8. Define an emulsion and mention the tests conducted to identify the type of an emulsion.
9. Define LV and SVP with an example for each.
10. Explain bloom strength and write its importance.

### PART - B

Note: Answer any five questions.

(5 x 10 = 50 Marks)

11. Explain about various quality control tests for ophthalmic products.
12. Explain different methods used for manufacturing soft gelatin capsules.
13. Explain various quality control tests for tablets.
14. Explain different approaches for transdermal drug delivery system.
15. Explain in detail about formulation of parenteral preparations.
16. What are suppositories? Write about bases used in different suppository preparation.
17. Define and classify ointments. Explain in detail about the preparation of ointments.

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**FACULTY OF PHARMACY**

**Pharm. D III-Year (6 YDC) (Main & Backlog) Examination, September 2023**  
**Subject: Pharmacology – II**

**Time: 3 Hours**

**Max.Marks:70**

**PART-A**

**Note: Answer all the questions.**

**(10 x 2 = 20 Marks)**

1. Write a note on antiplatelets.
2. Write the adverse effects of aminoglycosides.
3. Write a note on OECD guidelines.
4. Write the adverse effects of Meropenems.
5. Write a note on antibiotic resistance.
6. Write the mechanism of action of praziquantel.
7. Write the structure of mRNA.
8. List out the methods of gene sequencing.
9. What is genetic code and mention its characteristics.
10. Write a note on apixaban.

**PART-B**

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

11. Write the Pharmacology of carbonic anhydrase inhibitors and loop diuretics.
12. Explain the pharmacology of direct thrombin inhibitors.
13. Classify Anticancer agents. Discuss the pharmacology of antimetabolites.
14. Write in detail about DNA recombinant technology and its applications.
15. Write mechanism of action, ADRs and uses of the following drugs  
(a) Vancomycin (b) Isoniazid
16. Write in detail about (a) Gene therapy (b) RNA processing.
17. Discuss in detail about toxicity studies.
18. Write in detail about MAPK signaling pathways.

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**FACULTY OF PHARMACY****Pharm D III Year (6 YDC) (Main & Backlog) Examination, September 2023****Subject: Medicinal Chemistry****Time: 3 Hours****Max. Marks: 70****PART - A****Note: Answer all the questions.****(10 x 2 = 20 Marks)**

1. Define scabicide with examples.
2. Give two structural examples of Macrolide antibiotics.
3. What is combinatorial chemistry? Write its application.
4. Give the classification of Local and anti-infective Agents and Write the structures of any three drugs.
5. Write the name and structure of drug used as anticonvulsant and anti arrhythmic agent?
6. What is hyper lipoproteinaemia? Give the list of drugs for treatment.
7. Classify alkylating agents Explain the MOA, and structure of any two alkylating drugs?
8. Write the difference between penam and cepham?
9. Give structures, IUPAC name of any two sulphonamides used as antibacterials?
10. Give the applications of Diagnostic agents.

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

11. What is QSAR? Discuss its applications in drug design.
12. (a) Write the applications of prodrug with suitable examples.  
(b) Outline the synthesis, mechanism of action, uses of the following:  
i) Ciprofloxacin ii) Metronidazole
13. (a) Write the classification of Penicillin's with examples and discuss their mechanism of action.  
(b) Write the SAR of tetracycline.
14. (a) Write the classification of anti tubercular drugs giving one structural example for each class  
(b) Discuss about plant products used as anti neoplastic agents.
15. (a) Write the SAR of thiazide diuretics.  
(b) Write a note on antithyroid agents.
16. (a) Classify diuretics with examples. Write the synthesis of acetazolamide.  
(b) Write a note on macrocyclic agent.
17. (a) Write the structures and therapeutic uses of adrenocorticoids  
(b) Give the structure and uses of testosterone and progesterone
18. (a) Classify anti anginal agent with example.  
(b) Write the S.A.R of 7-chloro-4-amino quinoline.

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**FACULTY OF PHARMACY****Pharm D III Year (6 YDC) (Main & Backlog) Examination, September 2023****Subject: Pharmacotherapeutics – II****Time: 3 Hours****Max. Marks: 70****PART - A****Note: Answer all the questions.****(10 x 2 = 20 Marks)**

1. Which factors should be considered while selecting an antibiotic for treatment of Meningitis?
2. Write a note on etiology and treatment of systemic fungal infections.
3. Briefly discuss the treatment options for management of Gonorrhoea.
4. What are the different types of Psoriasis?
5. Write a note on clinical presentation of Endocarditis.
6. Discuss the risk factors of Gout.
7. What are the common adverse effects of cancer chemotherapy?
8. Write a note on the complications of chronic kidney disease.
9. What are the stages of Breast cancer?
10. What is tumour lysis syndrome?

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

11. Explain etiology, risk factors and pathogenesis of Urinary tract infections. Add a note on pharmacotherapy of uncomplicated lower urinary tract infection.
12. Give a detailed account of etiopathogenesis and antimicrobial therapy of bacterial meningitis. Discuss the role of steroidal adjunctive therapy in meningitis.
13. Describe the general approach to management of Sepsis with the help of an algorithm.
14. (a) Explain the guidelines related to the rational use of antibiotics.  
(b) Differentiate rheumatoid arthritis and osteoarthritis.
15. (a) Give a detailed description of management of acute gout.  
(b) Briefly describe the mechanism of radio contrast media and aminoglycoside induced renal disease.
16. Explain the following  
(a) Basic principles of cancer chemotherapy  
(b) Management of chemotherapy induced nausea and vomiting.
17. Discuss the therapeutic management of (a) Impetigo  
(b) Malaria.
18. Define pneumonia. Explain different etiologies of community acquired pneumonia and its management in detail.

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**FACULTY OF PHARMACY**  
**Pharm-D III-Year (6-YDC) (Instant) Examination, May 2022**  
**Subject: Pharmacology - II**

**Time: 3 Hours**

**Max. Marks: 70**

**PART- A**

**Note: Answer all questions:**

**(10 x 2 = 20 Marks)**

- 1 Write a note on antiplatelet agents.
- 2 Write the adverse effects anti cancer agents.
- 3 Define immunomodulators and mention any two examples.
- 4 Write the adverse effects of Meropenems.
- 5 Write a note on antibiotic resistance.
- 6 Write the mechanism of action pyrimethamine..
- 7 Write the structure of r RNA.
- 8 List out the method of gene sequencing.
- 9 What is genetic code and mention its characteristics?
- 10 Write a note on thrombolytics.

**PART-B**

**Note: Answer any five questions:**

**(5 x 10 = 50 Marks)**

- 11 Write the Pharmacology of Fondaparinux and Warfarin.
- 12 (a) Explain the pharmacology of anti diuretic hormones.  
(b) Write a note on acute toxicity studies.
- 13 Write a note on a) Sulphonamides b) Azithromycin c) Tetracyclines.
- 14 Classify Anticancer agents. Discuss the pharmacology of antimetabolites.
- 15 Write in detail about a) Gene therapy b) RNA processesing.
- 16 Discuss in detail about anti fungal agents.
- 17 Explain in detail about MAPK signalling pathways in eukaryotic cells.
- 18 Write in detail about DNA recombinant technology and its applications.

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**FACULTY OF PHARMACY**  
**Pharma. D III Year (6-YDC) (Instant) Examination, May 2022**  
**Subject: Medicinal Chemistry**

**Time: 3 Hours**

**Max. Marks: 70**

**PART – A**

**Note: Answer all questions.**

**(10 x 2 = 20 Marks)**

- 1 Give two structural examples of Cephalosporins
- 2 Explain the mechanism of action of Sulfadruugs with examples
- 3 Give two examples and therapeutic uses of antitubercular drugs
- 4 Mention the applications of QSAR
- 5 Write two examples of Antihelmenthic drugs
- 6 Write the name and structure anti arrhythmic agents
- 7 Write the structure and uses of chloramphenicol
- 8 Give the classification of prodrugs
- 9 Explain the mechanism of action and uses of Metformin
- 10 Give the applications of Diagnostic agents

**PART – B**

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

- 11 Define QSAR. Explain in detail the parameters of QSAR.
- 12 (a) Classify antifungal agents with examples.  
(b) Write the mechanism of action of any two classes of antifungal drugs.
- 13 (a) Give the classification of Penicillins with examples.  
(b) Write the SAR and mechanism of action of Tetracyclins.
- 14 (a) Classify Antihelmentics agents with examples.  
(b) Write the synthesis and mode of action  
(i) Diethyl carbamazine citrate (ii) Ethambutol
- 15 What is Prodrug? What are the types of Prodrugs? Explain in detail its applications along with examples.
- 16 (a) Classify antianginal agents with examples.  
(b) Write the mechanism of action of:  
(i) Loop diuretics (ii) Thiazide diuretics
- 17 (a) Write a short notes on Hypoglycemic agents.  
(b) Write the structure and uses of (i) Testosterone (ii) Progesterone.
- 18 (a) Classify calcium channel blockers? Write its mechanism of action and SAR.  
(b) Write the synthesis of (i) Verapamil (ii) Nefidepine.

**FACULTY OF PHARMACY**  
**Pharma. D III Year (6-YDC) (Instant) Examination, May 2022**  
**Subject: Pharmaceutical Jurisprudence**

**Time: 3 Hours**

**Max. Marks: 70**

**PART – A**

**Note: Answer all questions.**

**(10 x 2 = 20 Marks)**

- 1 What are the objectives of Pharmacy Act 1948?
- 2 What is Schedule X & Schedule Y as per Drug & Cosmetic Act?
- 3 Define Drugs as per D & C Act?
- 4 What is Repacking licence
- 5 Write the function of Drug Consultative Committee?
- 6 Define Drug & Magic Remedies Act
- 7 Give the labelling requirements for Schedule H drug
- 8 What are Prescription & Non Prescription drugs
- 9 Write the objectives of essential commodities Act 1955?
- 10 Enlist the two Central Government factories where Opium Manufactured

**PART – B**

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

- 11 Explain the Constitution & functions of PCI?
- 12 Define Patent? Explain the Patentable invention and Non-Patentable invention.
- 13 Explain about the Schedule M of Drugs & Cosmetic Act?
- 14 Explain the Construction of Bonded & Non-Bonded Laboratory?
- 15 Explain in detail Construction and warehousing of alcoholic preparations?
- 16 Explain in detail objectives and targets of National Drug Policies 2002?
- 17 Explain cultivation, production and manufacturing of Opium under NDPS Act?
- 18 Give the various offences and penalties mentioned under NDPS Act and Rules?

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**FACULTY OF PHARMACY**  
**Pharma. D III Year (6-YDC) (Instant) Examination, May 2022**  
**Subject: Pharmacotherapeutics - II**

**Time: 3 Hours**

**Max. Marks: 70**

**PART – A**

**Note: Answer all questions.**

**(10 x 2 = 20 Marks)**

- 1 Write a brief note on spondylitis
- 2 Define Acute renal failure based on AKIN criteria
- 3 Give clinical presentation of Eczema
- 4 What are the commonly occurring protozoal infections
- 5 Define and classify Leukemias
- 6 List out diagnostic criteria for viral infections.
- 7 What are the criteria for diagnosing rheumatoid arthritis as per American college of Rheumatology?
- 8 Write the pathophysiology for chemotherapy induced nausea and vomiting
- 9 Mention the etiology for psoriasis
- 10 What are the common pathogens causing meningitis? Add a note on the clinical presentation.

**PART – B**

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

- 11 (a) What are the risk factors for Breast cancer?  
(b) Write a note on treatment of early Breast cancer.
- 12 (a) Describe the various strategies used to treat Osteoarthritis.  
(b) Discuss pharmacological treatment of Rheumatoid arthritis.
- 13 Explain the causes, clinical presentation and treatment for lower respiratory tract infections.
- 14 Write in detail about the approach for antimicrobial regimen selection.
- 15 (a) Write the treatment algorithm for management of Leukemias.  
(b) Explain the role of colony stimulating factors in acute myeloid leukemia.
- 16 (a) Write the management for complications in CKD.  
(b) Write the management for drug induced renal disease.
- 17 (a) Explain the role of integrase inhibitors and entry inhibitors in the treatment of HIV infection along with examples.  
(b) Write in brief note on newer diagnosis tests for tuberculosis.
- 18 (a) Write the pathogen involved and the pharmacotherapy for Gonorrhoea.  
(b) Etiopathogenesis of Syphilis.

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**FACULTY OF PHARMACY**  
**Pharm D III Year (6-YDC) (Instant) Examination, May 2022**

**Subject: Pharmaceutical Analysis**

**Time: 3 Hours**

**Max. Marks: 70**

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

**PART - A (20 Marks)**

- 1 What are the different sources of quality variation?
- 2 Define (a) Frontal analysis (b) Elution analysis.
- 3 Differentiate between GLC and GSC.
- 4 Define the terms (a) Residual current (b) Diffusion current.
- 5 Define Beer's Lambert's law.
- 6 Describe the process of quenching.
- 7 Discuss the effect of solvent on absorption spectra.
- 8 Add a note on applications of x-ray diffraction.
- 9 Write the principle involved in the polarimetry.
- 10 What are the different types of paper chromatography?

**PART - B (50 Marks)**

- 11 Explain the ICH guidelines.
- 12 (a) Describe the principle, instrumentation involved in HPTLC.  
(b) Describe the different types of carrier gases in Gas chromatography with their advantages & disadvantages.
- 13 Describe any two reference electrodes and two indicator electrodes with their advantages and disadvantages.
- 14 Add a note on the instrumentation and applications of UV-spectrophotometer.
- 15 Explain the theory and instrumentation in flame photometry.
- 16 (a) Define Fragmentation and types of ions in mass spectroscopy.  
(b) Add a note on applications of polarimetry.
- 17 (a) Differentiate between DSC & DTA.  
(b) Differentiate between atomic absorption spectrometry and atomic emission spectroscopy.
- 18 Define conductometric titrations. Describe the conductometric titration between strong acid versus strong base.

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**FACULTY OF PHARMACY**  
**Pharm. D III - Year (6-YDC) (Instant) Examination, May 2022**

**Subject: Pharmaceutical Formulations**

**Time: 3 Hours**

**Max. Marks: 70**

**PART – A**

**Note: Answer all the questions.**

**(10 x 2 = 20 Marks)**

- 1 Define dosage form and classify sterile dosage forms.
- 2 Describe process of compression cycle in rotary compression machine in tablet manufacturing.
- 3 What are ideal requirements of parenteral dosage forms?
- 4 Discuss properties of enteric film formers and mention examples.
- 5 Define base adsorption give the formula.
- 6 Differentiate between flocculated and deflocculated suspensions.
- 7 Define novel drug delivery system, give its objectives.
- 8 Define TDDS and list out components of TDDS.
- 9 Write and define different types of jellies.
- 10 State different types of glass container used for parenterals.

**PART – B**

**Note: Answer any five questions.**

**(5 x 10 = 50 Marks)**

- 11 Classify and explain properties of different types of tablets.
- 12 Write a note on formulation and evaluation of suspensions.
- 13 Make a note on formulation of parenteral dosage forms.
- 14 (a) Write short note on ointment bases.  
(b) Mention labelling requirements of ophthalmic preparations.
- 15 Write a note on factors affecting absorption of ophthalmic preparations.
- 16 Write in detail about parenteral drug delivery system.
- 17 Discuss elaborately production and filling of hard gelatin capsules.
- 18 Enumerate objectives of ophthalmic drug delivery system, give note ocular inserts with examples.

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**FACULTY OF PHARMACY**

**Pharm-D III-Year (6-YDC) (Main & Backlog) Examination, October 2021 Subject:**

**Pharmacology - II**

**Time: 2 Hours**

**Max. Marks: 70**

**PART- A**

**Note: Answer any six questions:**

**(6 x 5 = 30 Marks)**

1. Write a note on Acute toxicity studies as per OECD guidelines.
2. Mention the complications of potassium sparing diuretics.
3. Define coagulants. Explain Vit.K.
4. Write the adverse effects of Isoniazid.
5. Write briefly about macro molecular assemblies.
6. Write the mechanism of action Methotrexate.
7. Write a note on tumour suppressor genes.
8. Define mutations, deletions and amplifications.
9. Write the advantages of carbapenems over penicillins.
10. Write a note on oncogenes.

**PART-B**

**Note: Answer any four questions:**

**(4 x 10 = 40 Marks)**

11. Classify anticoagulants. Write the Pharmacology of Warfarin and Heparin.
12. Classify diuretics. Write the Pharmacology of Loop diuretics and carbonic anhydrase inhibitors.
13. Classify Anticancer agents. Discuss the pharmacology of alkylating agents.
14. Write a note on a) Chronic toxicity studies b) immune modulators.
15. Write the Pharmacology of a) Penicillins b) Aminoglycosides.
16. Write in detail about a) Gene expression b) Gene mutations.
17. Discuss protein synthesis in detail.
18. Write in detail about MAPK signalling pathways in eukaryotic cells.

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**FACULTY OF PHARMACY**  
**Pharma. D III Year (6-YDC) (Main & Backlog) Examination,**  
**October 2021 Subject: Medicinal Chemistry**

**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 What are various parameter used in QSAR
- 2 Give two structures of Antitubercular drugs
- 3 Write the application of combinational chemistry
- 4 Give the classification of Local and anti infective Agents and Write the structures of any three drugs
- 5 Write the mechanism of action and uses of Metronidazole and Pyrizinamide
- 6 Write the advantages of Prodrugs
- 7 Give the structures and write the uses of any two tetracyclins
- 8 Write the mechanism of action of Enalpril and Acetazolamide
- 9 Write the structure and medicinal use of chloramphenicol
- 10 Write the mechanism of action of Loop Diuretics with examples

**PART – B (4 x 10 = 40 Marks)**

- 11 What is QSAR? Discuss its applications in drug design.
- 12 (a) Write the classification of Pencillins with examples and discuss their mechanism of action.  
(b) Write the SAR of tetracycline.
- 13 (a) Classify Sulfadruugs. Give one example with structure for each class.  
(b) Outline the synthesis of (I) Sulfanilamide (II) Chlorambucil
- 14 (a) Write the SAR of thiazide diuretics.  
(b) Write a note on antithyroid agents.
- 15 Write the synthesis, mechanism of action of following drugs (i) Cephalexin (ii) Isoniazid (iii) Metronidazole.
- 16 (a) Classify diuretics with examples. Write the synthesis of Acetazolmide.  
(b) Write a note on ACE inhibitors.
- 17 (a) Give a brief account on steroidal hormones.  
(b) Outline the synthesis of Tolbutamide and metformin.
- 18 (a) Classify antihyperlidemic agents and write the synthesis any one of them.  
(b) Write a note on diagnostic agents.

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**FACULTY OF PHARMACY**  
**Pharma. D III Year (6-YDC) (Main & Backlog) Examination,**  
**October 2021 Subject: Pharmaceutical Jurisprudence**

**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 What is Repacking licence
- 2 Define Cosmetics as per D & C Act
- 3 Write the function of Government Analyst
- 4 Define Spurious drug
- 5 Write the objectives of Drug & Magic Remedies Act
- 6 Write the objectives of essential commodities Act 1955
- 7 Give the labelling requirements for Ophthalmic 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 (4 x 10 = 40 Marks)***

- 11 Explain the Constitution & functions of PCI?
- 12 Explain in detail about the Schedule Y of Drugs Cosmetic Act?
- 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 What are the Powers and Duties of Drug Inspector?
- 18 Explain in detail on prevention of cruelty of Animal Act 1960?

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

**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 What are the signs and symptoms of SLE
- 2 What are the various types of psoriasis
- 3 What are the risk factors for breast cancer
- 4 Write a note on xanthine oxidase inhibitors and its role in management of Gout
- 5 Write the monitoring parameters for drugs used in T.B
- 6 Define community acquired and hospital acquired Pheumonia
- 7 What are the two major classes of genes involved in carcinogenesis? Give examples.
- 8 What is the role of dexamethasone in the treatment of chemotherapy induced nausea
- 9 Write a note on amino glycoside induced renal disorders
- 10 What is the common regimen to treat Gonorrhoea

***PART – B (4 x 10 = 40 Marks)***

- 11 (a) Write the basic principles of cancer therapy.  
(b) Write about different types of viral infections and their management.
- 12 (a) Write the guidelines for rational use of antibiotics.  
(b) Write a note on surgical prophylaxis of antibiotics for various surgeries.
- 13 Write the clinical presentation and management of  
(a) Scabies (b) Impetigo.
- 14 (a) Give a brief account on the vaccination for influenza.  
(b) Write a note on the treatment on malaria.
- 15 (a) Discuss the management of UTI.  
(b) What is the etiology for endocarditis?
- 16 Discuss pharmacological management of  
(a) Gastroenteritis (b) Septicemia.
- 17 Write a note on Pathophysiology of (a) LRTI (b) Syphilis
- 18 Write a note on haemodialysis. Mention the advantages and disadvantages of haemodialysis and peritoneal dialysis.

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**FACULTY OF PHARMACY**

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

**Subject: Pharmaceutical Analysis**

**Time: 2 Hours**

**Max. Marks: 75**

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

**PART - A (6 x 5 = 30 Marks)**

- 1 Define total quality management.
- 2 Explain the different types of ion exchange synthetic resins.
- 3 Define Gel filtration chromatography and affinity chromatography.
- 4 What are the different factors which affects column efficiency?
- 5 Give Ilkovic's equation.
- 6 What are the limitations of Beer Law?
- 7 What are the different types of transitions in organic molecules?
- 8 What are fluorescent indicators? Give examples.
- 9 Define (a) optical rotatory dispersion (b) circular dichroism.
- 10 Write the applications of electrophoresis.

**PART - B (4 x 10 = 40 Marks)**

- 11 (a) Define GLP. What are the different requirements to maintain GLP?  
(b) Explain the importance of ISO 9000.
- 12 (a) Describe the derivatisation techniques in Gas chromatography.  
(b) Add a note on applications of Ion exchange chromatography.
- 13 (a) What are the different methods of detecting end point? Describe two methods in brief.  
(b) Add a note on different columns in HPLC.
- 14 Describe the principle, instrumentation applications in UV-spectroscopy with the help neat diagram.
- 15 Explain the theory and instrumentation involved in flame photometry.
- 16 Add a note on applications of  
(a) NMR spectroscopy  
(b) Mass spectroscopy.
- 17 Explain the instrumentation and applications of  
(a) DSC  
(b) DTA.
- 18 (a) Describe the principle and instrumentation in paper electrophoresis.  
(b) Differentiate between TLC & HPTLC.

**FACULTY OF PHARMACY**

**Pharm.D III Year (6-YDC) (Main & Backlog) Examination, October 2021 Subject:  
Pharmaceutical Formulations**

**Time: 2 Hours**

**Max. Marks: 70**

**PART – A**

**Note: Answer any six questions.**

**(6 x 5 = 30 Marks)**

- 1 Differentiate between HGC and SGC.
- 2 Discuss properties of diluents used in tablet manufacturing with examples.
- 3 Define bloom gel strength give its significance.
- 4 Define different solution dosage forms used for oral administration.
- 5 Explain vehicles used in parenteral dosage forms.
- 6 What are emulsifying agents and list out them?
- 7 Account the ideal requirement of drug candidates for sustain release dosage form development.
- 8 Mention differences between SVP and LVPs.
- 9 List out steps involved in sugar coating process.
- 10 Give the significance of displacement value in suppositories preparation.

**PART – B**

**Note: Answer any four questions.**

**(4 x 10 = 40 Marks)**

- 11 Write note on different granulation techniques and discuss compression stages of tablet manufacturing process.
- 12 Write in detail about IPQC tests conducted for parenteral dosage forms.
- 13 Mention merits and demerits of emulsion dosage forms and give brief note on stability of emulsions.
- 14 Write short note on syrups and mouthwashes.
- 15 Explain formulation types of jellies and methods preparation in detail.
- 16 Enumerate formulation and methods of preparation of suppositories.
- 17 Write a note on formulation and evaluation of TDDS.
- 18 Elaborately explain different containers used for sterile dosage form packaging.

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**FACULTY OF PHARMACY**

**Pharm D III-Year (6-YDC) (Instant) Examination, July 2021**

**Subject : Pharmacology - II**

**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 MIC and MBC.
- 2 Write the abnormalities of Robertsonian translocations.
- 3 What is Genetic code? Write its characteristic features.
- 4 Write clinical uses of Fibrinolytics.
- 5 Explain the structure and functions of Ribosomes.
- 6 Write the adverse effects of sulfonamides.
- 7 Write about albendazole.
- 8 Write the mechanism of action and adverse effects of methotrexate.
- 9 Explain briefly the role of P 53 in cell cycle regulation.
- 10 Write the Clinical indications of ADH and its analogues

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

- 11 Write note on
  - i) Macrolide antibiotics
  - ii) Cotrimoxazole
- 12 Write about DOTS and RNTCP Regimens for all the Categories of TB.
- 13 a) Write the pharmacology of Loop diuretics.  
b) Write notes on Antiplatelet drugs.
- 14 Explain the MAP Kinase and PI 3 Kinase signal transduction pathways.
- 15 What are Immunosuppressants? Write the pharmacology of calcineurin inhibitors and immunosuppressant regimens.
- 16 Write notes on
  - a) Anticancer alkylating agents and
  - b) Vectors used in DNA recombinant technology.
- 17 Describe in detail about transcription process in Prokaryotes.
- 18 a) Write short notes on Extended spectrum penicillin's and B-lactamase Inhibitors.  
b) Clinical applications of Gene therapy.

**FACULTY OF PHARMACY**

Pharm D (6-YDC) III-Year (Instant) Examination, July 2021

Subject : Medicinal Chemistry

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 the applications of QSAR
- 2 What are sulfadruugs? Draw any two structures of sulfadruugs.
- 3 Give the general structure and numbering of tetracycline and mention its pKa values.
- 4 Write about artemisinin derivatives and their therapeutic uses.
- 5 Write the structure and mechanism of action of aspirin.
- 6 Write the mechanism of action and uses of amino glycosides?
- 7 Draw ant two structures and write mechanism of action of Anticoagulants.
- 8 Write the mechanism of action and uses of dexamethasone.
- 9 Draw any two structures of Beta 1 blockers and their therapeutic uses.
- 10 Write the mechanism of action and uses of Metformin and Nifedipine.

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

- 11 What is combinatorial chemistry? Discuss in detail about various approaches used in combinatorial synthesis
- 12 a) Classify anti fungal agents with examples.  
b) Write the synthesis and mechanism of actions of metronidazole.
- 13 a) Classify anti AIDS agents with examples  
b) Give the structure, synthesis and mechanism of action of Diethyl carbamazine citrate
- 14 a) Classify penicillins with examples, Write the SAR and mechanism of action Penicillins  
b) Give the synthesis and Mechanism of action of chloroquine.
- 15 a) Define Hypertension. Classify Antihypertensive agents with examples. and write the structures of any two Antihypertensive drugs.  
b) Write a note on Antianginal drugs?
- 16 a) Write the synthesis and uses of Metformin and Sulfanilamide  
b) Write the structure and applications of any five Diagnostic agents.
- 17 a) Give the structures and mechanism of actions of Glucocorticoids?  
b) Write the Synthesis and uses of Propylthiouracil.
- 18 a) Write a short notes on antithyroid drugs  
b) Write the classification of oral hypoglycemicLibrary agents with examples.

**FACULTY OF PHARMACY**

**Pharm D (6-YDC) III-Year (Instant) Examination, July 2021**

**Subject: Pharmaceutical jurisprudence**

**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. What are the functions of CDL (Central Drug Laboratory)
2. What is Schedule X & Schedule Y as per Drug & Cosmetic Act?
3. Define Cannabis & Opium?
4. What is Repacking licence?
5. Write the function of Drug Consultative Committee?
6. Define Drug & Magic Remedies Act?
7. Give the labelling requirements for Schedule H drug?
8. What are Prescription & Non Prescription drugs?
9. Write the Objectives of essential commodities Act 1955?
10. Enlist the two Central Government factories where Opium Manufactured?

**PART - B (4 x 10 = 40 MARKS)**

11. Define Patent? Explain the Patentable invention and Non-Patentable invention.
12. Explain the Constitution & functions of PCI?
13. Explain the Construction of Bonded & Non Bonded Laboratory?
14. Explain about the Schedule M of Drugs & Cosmetic Act?
15. Discuss Warehousing of Alcoholic Preparations in detail?
16. Give the Various Offences & Penalties mentioned under Narcotic & Psychotropic substances Act?
17. Enlist the prohibition of advertisement & penalties as per Drugs & Magic remedies Act?
18. Explain cultivation, production and Manufacturing of Opium under NDPS Act ?

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**FACULTY OF PHARMACY**

**Pharm D (6-YDC) III-Year (Instant) Examination, July 2021**

**Subject : Pharmacotherapeutics-II**

**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 What is the etiology for endocarditis?
- 2 Write a brief note on newer diagnosis tests for tuberculosis.
- 3 Differentiate Rheumatoid arthritis from osteoarthritis.
- 4 Write a brief note on diagnostic criteria for viral infections.
- 5 Mention the types of Eczema.
- 6 What are the clinical features of sepsis?
- 7 What are the two major classes of genes involved in carcinogenesis? Give examples.
- 8 Write a brief note on SLE.
- 9 Define acute renal failure based on AKIN criteria.
- 10 Mention the etiology for psoriasis.

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

- 11 Write a note on :
  - a) Management of malaria
  - b) Management of Gonorrhoea
- 12 a) Write the guidelines for rational use of antibiotics.  
b) Write a note on surgical prophylaxis of antibiotics for various surgeries.
- 13 List out the opportunistic infections in HIV. Explain the role of integrase inhibitors and entry inhibitors in the treatment of HIV infection.
- 14 Classify Leukemia's Explain the management of Leukemia's
- 15 a) Write a note on clinical presentation and diagnosis of Rheumatoid Arthritis.  
b) Describe the various strategies used to treat Osteoarthritis.
- 16 How is pyelonephritis treated? Write the principle behind peritoneal dialysis along with a note on its complications.
- 17 What are the risk factors for Breast cancer? Write about the chemotherapy regimens for breast cancer.
- 18 Write the pathophysiology
  - a) Impetigo
  - b) Scabies

**FACULTY OF PHARMACY**

**Pharm D (6-YDC) III-Year (Instant) Examination, July 2021**

**Subject: Pharmaceutical Analysis**

**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. Name the different types of electronic transitions in UV- visible spectrometry.
2. Name some fluorescent indicators.
3. Explain the principle involved in Gel electrophoresis.
4. Define the terms Blue shift and Red shift.
5. Explain the terms Residual current and diffusion current.
6. Give the Braggs equation.
7. Explain the different types of columns in gas chromatography.
8. What is Isocratic and gradient elution?
9. Describe the principle involved in the atomic absorption spectroscopy.
10. Name the different indicator electrodes used in potentiometric titrations.

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

11. Explain the principle and instrumentation of Gas chromatography.
12. Write short notes on
  - a. Effect of Oxygen on polarographic wave
  - b. Detectors used in the UV-Visible spectroscopy with their advantages and disadvantages.
13. a. Explain the different types of pumps in HPLC  
b. Give the applications of affinity chromatography
14. Explain the principle and instrumentation of ESR.
15. a. Add a note on different applications of X-ray diffraction.  
b. Enumerate different types of detectors in IR spectroscopy.
16. Explain the instrumentation and applications of Fluorimetry.
17. a. Describe the Fragmentation in mass spectroscopy with example.  
b. Calibration of UV Visible spectroscopy
18. a. Explain the instrumentation of DTA.  
b. Add a note on applications of polarimetry.



**FACULTY OF PHARMACY**

**Pharm D (6-YDC) III-Year (Instant) Examination, July 2021**

**Subject: Pharmaceutical Formulations**

**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 Base adsorption and gram / minim factor? Write its significance.
2. Define and classify tablets with examples.
3. Differentiate between Soft Gelatin capsules and Hard Gelatine capsules.
4. Explain about Enteric coating process.
5. What are the different evaluation tests for emulsion?
6. Write a brief note on preparation of Gelatine.
7. Explain the differences between flocculated and deflocculated Suspensions.
8. Describe Suspending agents with examples.
9. Write briefly about Nasal absorption enhancers.
10. What is the significance of isotonicity adjustment in Parenterals?

**PART – B (4x10 = 40 Marks)**

11. Explain the defects of Film coating process.
12. Define dosage form? Classify dosage form with suitable examples.
13. a) How will you evaluate physical stability of Suspensions?  
b) Explain Ointment bases with examples.
14. Explain shell formulations of Hard Gelatine Capsules. Write about different sizes of HGC with their capacities.
15. What are the criteria for selection of NDDS? Write a brief note on mechanism of Nasal absorption.
16. a) Explain formulation additives of Eye ointments.  
b) Write about the different bases used for preparation of Suppositories.
17. Explain the quality control tests for Parenterals.
18. a) Discuss different factors affecting absorption of drugs through skin.  
b) Explain different types of containers used for Parenterals.