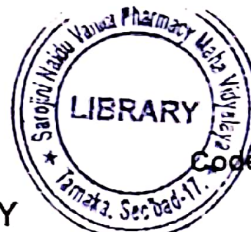


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Code No: G - 13267

FACULTY OF PHARMACY
Pharm. D (6YDC) III – Year (Main & Backlog) Examination, August 2025

Subject: Pharmaceutical Analysis

Time: 3 Hours

Max.Marks:70

PART – A

Note: Answer all the questions

(10 x 2 = 20 Marks)

1. Name the different columns used in HPLC. (2)
2. Define terms Bathochromic shift and Hypsochromic shift. (2)
3. What are the different sampling techniques in IR spectroscopy? (2)
4. Define Quality variation and Total quality management. (2)
5. Write the different applications of electrophoresis. (2)
6. What are the applications of NMR spectroscopy. (2)
7. What are the different types of development techniques in paper chromatography. (2)
8. What are the factors which affect Fluorescence. (2)
9. Name the different types of ions produced in mass spectrum. (2)
10. Give the polarographic wave equation. (2)

PART – B

Note: Answer any five questions.

(5 x 10 = 50 Marks)

11. (a) Differentiate between HPLC and GC. (4)
(b) Explain the construction and working of Dropping mercury electrode in Polarography. (6)
12. (a) Name the detectors and applications of IR spectroscopy. (3)
(b) Add a note on ISO 9000. (7)
13. Explain the principle, instrumentation and applications of Gas chromatography. (10)
14. (a) Differentiate between Atomic absorption spectroscopy and Atomic emission spectroscopy. (5)
(b) Describe the Principle and instrumentation in DSC. (5)
15. (a) Explain Karlfisher titration. (5)
(b) Explain the reciprocal lattice concept. (5)
16. Write the principle, instrumentation and applications of UV spectrophotometer. (10)
17. (a) Discuss the applications of X-ray Diffraction. (5)
(b) Explain the advantages and disadvantages of amperometry over potentiometry. (5)
18. Explain the theory, instrumentation and applications of Flame photometry. (10)



Code No.: G-13270

FACULTY OF PHARMACY
Pharm D (6 YDC) III - Year (Main & Backlog) Examination, August 2025
Subject: Medicinal Chemistry

Time: 3 Hours

Max. Marks: 70

PART - A

Note: Answer all the questions.

(10 x 2 = 20 Marks)

1. Define anticoagulant with examples.
2. Give two structural examples of Sulphonamides.
3. What is CADD? Write its importance in drug design.
4. List out the penicillins that are penicillinase-resistant & acid-resistant.
5. Mention the drugs used as scabicides and pediculocides.
6. What is angina pectoris. Give the drugs used for treating it.
7. Give examples of drugs used as anthelmintics.
8. Write the composition of co-trimoxazole along with structures.
9. Give the general synthesis of sulphonamides.
10. Write the brand names of following drugs:
i) Furosemide ii) Ciprofloxacin iii) Metronidazole iv) Azithromycin

PART - B

Note: Answer any five questions.

(5 x 10 = 50 Marks)

11. What is QSAR? Discuss about Hansch and Free wilson analysis methods.
12. Write about solid phase synthesis techniques of combinatorial compounds.
13. (a) Write the applications of prodrug with suitable examples.
(b) Outline the synthesis, mechanism of action, uses of the following:
i) Chloroquine phosphate ii) Zidovudine
14. (a) Write the classification of antimalarial drugs with examples.
(b) Write the SAR of quinolones.
15. (a) Write the classification of anti tubercular drugs giving one structural example for each class.
(b) Discuss about alkylating agents used as anti neoplastic agents.
16. (a) Write a note on oral hypoglycemic agents.
(b) Write a note on antithyroid agents and give the synthesis of propyl thiouracil.
17. (a) Classify diuretics with examples. Give the synthesis of acetazolamide.
(b) Write the SAR of thiazide diuretics.
18. (a) Write the structures and therapeutic uses of adrenocorticoids.
(b) Write about oral contraceptives, mechanism of action along with structural examples.



Code No: G-13266

FACULTY OF PHARMACY

Pharm. D (6 YDC) III – Year (Main & Backlog) Examination, August 2025

Subject: Pharmacology – II

Time: 3 Hours

Max.Marks:70

PART – A

Note: Answer all the questions

(10 x 2 = 20 Marks)

1. What are Thrombolytics? Write the role of streptokinase in stroke.
2. Write the advantage of low molecular weight heparins over heparins.
3. Define acute, sub-acute and chronic toxicity.
4. Write the uses of co-trimoxazole.
5. What is Lac operon model?
6. Define mutations, chromosomal translocations and the role in disease.
7. Write the indications of diuretics.
8. Write the uses of Haemopoietics.
9. What is central dogma of molecular biology?
10. Write about cell cycle restriction points.

PART – B

Note: Answer any five questions.

(5 x 10 = 50 Marks)

11. Write the mechanism of action, therapeutic uses and adverse effects of
(i) Methotrexate (ii) Vincristine (iii) L-asparaginase
12. Classify immunosuppressive drugs. Write the mechanism of action, therapeutic uses and Adverse effects of (i) Cyclosporine (ii) Azathioprine (iii) Prednisolone
13. Classify Antitubercular drugs. Write the pharmacology of isoniazid and rifampicin. Discuss the regimens used for management of TB.
14. Elaborate (a) Ras – Map kinase pathway (b) Signal transduction of ion channels.
15. What is gene therapy? Write the significant applications of gene therapy in treating the Chronic diseases.
16. Write in detail about (a) RNA processing (b) Protein synthesis.
17. Write the mechanism of action, therapeutic uses and adverse effects of
(i) Antimalarial drugs (ii) Anti-amoebic drugs
18. What are anti-coagulants? Write the pharmacology of warfarin.



Code No: G-13268

FACULTY OF PHARMACY

Pharm. D (6 YDC) III - Year (Main & Backlog) Examination, August 2025

Subject: Pharmacotherapeutics – II

Time: 3 Hours

Max.Marks:70

PART – A

Note: Answer all the questions

(10 x 2 = 20 Marks)

1. What is the etiology of urinary tract infections?
2. What are the different causative organisms of community acquired pneumonia.
3. Write a short note on treatment of drug resistant tuberculosis.
4. Discuss the clinical presentation of Rheumatoid Arthritis.
5. Suggest non-pharmacological therapy for Gout and spondylitis.
6. Briefly describe the mechanisms of drug induced renal disorders.
7. What are the basic treatment modalities for management of cancer?
8. Explain the principles involved in hemodialysis and peritoneal dialysis.
9. Justify the use of dexamethasone in management of meningitis.
10. What are the different types of Psoriasis?

PART – B

Note: Answer any five questions

(5 x 10 = 50 Marks)

11. Describe the pathophysiology and management of Endocarditis. Write a short note on Gonorrhoea.
12. Explain the treatment options available for hyperuricemia. Discuss the management of scabies.
13. Describe the etiology and pharmacotherapy of
 - (a) Malaria
 - (b) Nosocomial pneumonia
14. Describe the following
 - (a) Rational use of antibiotics
 - (b) Management of syphilis
15. Explain the management of HIV infection in detail. Add a note on any two opportunistic infections with HIV.
16. Briefly explain pharmacotherapeutics of SLE and impetigo.
17. Give a detailed account of management of Breast cancer at different stages. Add a note of antiemetic agents used in Chemotherapy induced nausea and vomiting.
18. Briefly discuss the therapeutic management of Sepsis and Acute Myeloid Leukemia.

