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III/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS, SEPTEMBER – 2025**SIXTH SEMESTER****MEDICINAL CHEMISTRY III – THEORY**

Time: 3 Hours

Maximum : 75 Marks

SECTION – A**Answer any FIVE of the following questions.****Each question carries “TEN” marks.****5 x 10 = 50 M**

01. What are β -lactam antibiotics? Give the degradation products of penicillins. Outline the chemistry and synthesis of chloramphenicol.
02. What are anti-malarial drugs? Explain the lifecycle of malaria.
03. Outline the synthesis of pamaquine and chloroquine.
04. Write in detail about anti-protozoal and anti-malarial drugs.
05. What are prodrugs? Write the classification of prodrugs based on functional group with examples.
06. Write the synthesis and mechanism of Diethyl carbamazine citrate and metronidazole.
07. Write the synthesis, mode of action and therapeutic action and therapeutic uses of Isoniazid and para amino salicylic acid.

SECTION – B**Answer any FIVE of the following questions.****Each question carries “FIVE” marks.****5 x 5 = 25 M**

08. Write the chemical degradation of penicillins.
09. Write a short note on prodrugs.
10. Write in detail about combinatorial chemistry.
11. Write about anti-viral drugs.
12. Give the applications of prodrugs with examples.
13. What are anti-protozoal agents. Write the synthesis and structure of ornidazole.
14. Explain in detail about electronic parameters used in QSAR.

III/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS, SEPTEMBER – 2025

SIXTH SEMESTER

PHARMACOLOGY III – THEORY

SECTION – A

ANSWER ANY FIVE QUESTIONS

5X10 = 50 M

1. Classify antiulcer drugs with examples. Write the mechanism of action, adverse effects and uses of omeprazole.
2. Define broad spectrum antibiotics with examples. Explain the mechanism of action, adverse effects and uses of tetracyclines.
3. Classify antiemetics with examples. Write mechanism of action adverse effects and uses of domperidone.
4. What are aminoglycoside antibiotics? write the antimicrobial spectrum, mechanism of action, adverse reactions and therapeutic uses of streptomycin.
5. What are laxatives and purgatives? Classify them with examples. Write the mechanism of action and uses of saline cathartics.
6. Classify cephalosporins with examples. Describe their mechanism of action and uses.
7. Classify antifungal agents with examples. Write mechanism of action, adverse effects and therapeutic uses of triazoles.

SECTION – B

ANSWER ANY FIVE QUESTIONS

5X5 = 25 M

8. Describe the mechanism of action of chloroquine.
9. Mention xanthine derivatives and write their mechanism of antiasthmatic action.
10. Classify antiviral and antiretroviral agents with examples.
11. What are immunosuppressants and immuno stimulants?
12. Explain about elimination of orally ingested poison.
13. Explain the terms carcinogenicity and mutagenicity with examples.
14. What are mucolytics? Give examples write mechanism of action of bromohexine.

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III/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS, SEPTEMBER – 2025**SIXTH SEMESTER****HERBAL DRUG TECHNOLOGY – THEORY**

Time: 3 Hours

Maximum : 75 Marks

SECTION – A**Answer any FIVE of the following questions.****Each question carries “TEN” marks. 5 x 10 = 50 M**

01. Write an elaborative note on processing of herbal raw materials.
02. Explain in detail about the preparation and standardization of Ayurvedic formulation. Write a note on churnas and lehyas.
03. Explain in detail about the scope and type of nutraceutical products available in the market.
04. What are herbal formulations? Write a note on
 - a) Phytosomes
 - b) Herbal disintegrants
05. Elaborate WHO guidelines for assessment of herbal drugs.
06. Briefly explain the objectives and components of Schedule T.
07. Explain about good agricultural practices in cultivation of medicinal plants.

SECTION – B**Answer any FIVE of the following questions.****Each question carries “FIVE” marks. 5 x 5 = 25 M**

08. Explain sources of herbs.
09. Write a brief note on organic farming.
10. Write a note on herbal drug interactions with suitable examples.
11. Discuss the role of nutraceuticals in the prevention, therapy and management of cancer.
12. Write the role of anti – oxidants in herbal formulations. Give a brief account of these materials.
13. Write a detailed account of case study of Neem and Curcuma.
14. Write the possible side effects and interactions of garlic and pepper.

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III/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS, SEPTEMBER – 2025**SIXTH SEMESTER****BIOPHARMACEUTICS AND PHARMACOKINETICS – THEORY**

Time: 3 Hours

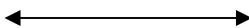
Maximum : 75 Marks

SECTION – A**Answer any FIVE of the following questions.****Each question carries “TEN” marks.****5 x 10 = 50 M**

01. Define biopharmaceutics. Discuss in detail kinetics of protein binding.
02. Discuss in detail drug metabolism and metabolic pathways of renal excretion.
03. Explain determination of pharmacokinetic parameters from plasma concentration data after administration of drug by I. V infusion.
04. Derive various pharmacokinetic parameters for extravascular administration by one compartment model.
05. Explain in detail about compartment models and non – compartment models.
06. Write the objectives and significance of non-linear pharmacokinetics. Explain factors causing non – linearing.
07. Define bioavailability. Explain pharmacokinetic methods for assessment of bioavailability.

SECTION – B**Answer any FIVE of the following questions.****Each question carries “FIVE” marks.****5 x 5 = 25 M**

08. Explain the factors affecting drug distribution.
09. Briefly explain about mechanism of renal clearance.
10. Enumerate different methods for enhancement of dissolution of poorly soluble drugs.
11. Brief note on dosage regimen adjustment in patient with renal failure.
12. Explain the term invitro, invivo correlation.
13. Explain bioequivalence studies in brief.
14. Write applications and significance of pharmacokinetics.



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III/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS, SEPTEMBER – 2025**SIXTH SEMESTER****PHARMACEUTICAL QUALITY ASSURANCE – THEORY**

Time: 3 Hours

Maximum : 75 Marks

SECTION – A**Answer any FIVE of the following questions.****Each question carries “TEN” marks. 5 x 10 = 50 M**

01. Explain in detail about the elements for Total Quality Management and Quality by design.
02. Describe briefly about equipment selection, purchase specifications and maintenance of stores for raw materials.
03. Discuss testing facilities operation and control articles in detail.
04. Discuss in detail the salient features of schedule M.
05. Describe the method of waste disposal in production department.
06. Explain about good warehousing practices (GWP)
07. What are the sources of contamination and mix up in pharmaceutical manufacturing? How one can control this type of problems.

SECTION – B**Answer any FIVE of the following questions.****Each question carries “FIVE” marks. 5 x 5 = 25 M**

08. Write briefly about quality control test for secondary packing materials.
09. Describe SOP, Quality Audit and Quality Review.
10. Explain about personnel responsibilities, training and hygiene.
11. Discuss the procedure for conducting non – clinical laboratory studies.
12. Discuss the importance of BFR and MFR in detail.
13. List and explain different steps in quantification of equipments.
14. Write a note on distribution records.

