

بسم الله الرحمن الرحيم

Ministry of Higher
Education
& Scientific Research
University of Mosul
College of Pharmacy

اله



٢٠ / / م

وزارة التعليم العالي والبحث العلمي
جامعة الموصل
كلية الصيدلة
الدراسات العليا
التاريخ:

Competition Exam for Master in Pharmacology

2026- 2027

| Subjects | Reference Text: |
|---|---|
| Cardiovascular-renal drugs. | Katzungs Basic and Clinical Pharmacology 16th ed, 2023 |
| Drugs used to treat diseases of the blood, inflammation and gout. | |
| Endocrine drugs. | |
| Heavy metal intoxication and chelators. | |
| Management of the poisoned patient. | |





Competition Exam for Master in Pharmacy

2026- 2027

| Clinical lab. sciences | Pharmacology | Clinical Pharmacy | Pharmaceutics | Pharmaceutical chemistry | Pharmacognosy | Scientific Branch |
|--|--|--|---|--|---|-------------------|
| 1. Carbohydrates metabolism, (Chapter 12) Plasma lipids and lipoprotein (Chapter 13) Vitamins, minerals and trace elements (Chapter 15). | Cardiovascular-renal drugs. | Chronic Heart Failure | Pharmaceutical pre-formulation study | Antibiotics in pharmaceutical chemistry | Separation techniques (Phytochemistry) | 1 |
| | Heavy metal intoxication and chelators | Posttraumatic Stress Disorder and Obsessive-Compulsive Disorder | Summary on Tablet dosage form (Tablet classification) | Physicochemical properties in drug action | Alkaloids | 2 |
| Reference Martin A. Crook Clinical biochemistry and metabolic medicine. Eighth edition, 2012. | | Diabetes Mellitus | Dissolution and solubility | Drug design: finding led compounds. | Glycosides | 3 |
| 2. Microbiology and Immunology 3.Diagnostic microbiology (antibiotic sensitivity tests), Unit 1, chapter 4 | | Breast Cancer | | Drug design: optimizing target interaction. | | 4 |
| | | Pancreatitis | | Drug targeting in anticancer chemotherapy | | 5 |
| References Roitt's essential immunology, 13th edition, 2017. Lippincott illustrated microbiology, 4th edition, 2020. | References | | | | | |
| | Katzung's Basic and Clinical Pharmacology 16th ed, 2023 | DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 13th Edition Stuart T. Haines, Thomas D. Nolin, Vicki L. Ellingrod, L. Michael Posey, Jennifer Cocohoba, Lisa Holle | Pharmaceutics by Aulton, 2013 | Wilson and Gisvold's Textbook of organic medicinal and pharmaceutical chemistry | Treas and Evans, W.C., Pharmacognosy | |

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|--|--|--|--|---|---|--|
| | | | | An introduction of medicinal chemistry, Graham L. Patrick. | Robbers JE, Speedie MK, Tyler VE, Pharmacognosy and Pharmacobiotechnology. | |
| | | | | Medicinal chemistry of anticancer drugs, Carmen Avendan O and J. Carlos Mene'ndez | | |





Competition Exam for PhD in Pharmacy

2026- 2027

| Scientific Branch | Pharmacology and Toxicology | Pharmaceutical Chemistry | Clinical Lab Sciences | Clinical Pharmacy | Pharmaceutics | Pharmacognosy and Medicinal Plants |
|-------------------|---|--|---|--|---|--|
| Topics | 1. Endocrine drugs. 2. Management of the poisoned patient. | 1. Antiaging agents 2. Targeting of anticancer drugs 3. Five-membered heterocyclic compounds: synthesis, reactions, and bioactivity 4. Six-membered heterocyclic compounds: synthesis, reactions, and bioactivity 5. Mechanisms of some named chemical reactions | 1. The kidneys; (Chapter 3) 2. Pregnancy and infertility (Chapter 10). 3. Point of care testing (Chapter 30). 4. Microbiology and immunology. 5. Clinically important microorganisms (Chapter 32). 6. Heart failure and circulatory shock (Chapter 18). 7. Renal failure (Chapter 24) | 1. Prostate cancer 2. Bipolar disorder 3. Arrhythmia 4. Multiple Sclerosis 5. Sickle Cell Disease 6. Human Immunodeficiency Virus Infection | 1. Chemical kinetics and stability 2. Biopharmaceutics 3. Molecular biotechnology: From DNA sequence to therapeutic protein | 1. Glycosides 2. Alkaloids 3. Chemotherapeutics 4. Bioactive Plant Molecules, Sources and Mechanism of Action in the Treatment of Cardiovascular Disease 5. Novel Targets in Drug Discovery 6. Methods in natural product chemistry |

References

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| Katzung's Basic and Clinical Pharmacology 16th ed, 2023 | 1. Emerging Anti-Aging Strategies, Springer, 2023, Edited by Syed Ibrahim Rizvi. 2. Medicinal Chemistry Of Anticancer Drugs, Elsevier, 2008, | 1. Martin A. Crook Clinical biochemistry and metabolic medicine. Eighth edition, 2012. | 1. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 13th Edition 2. Applied | 1. MARTIN'S PHYSICAL PHARMACY AND PHARMACEUTICAL SCIENCES. Physical Chemical and Biopharmaceutical. Principles in the Pharmaceutical | 1. Delgoda R. Pharmacognosy: Fundamentals, applications and strategies. Academic Press; 2016 Nov 11. 2. Heinrich M, Barnes J, Prieto-Garcia J, Gibbons S, |
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|---|---|--|--|---|
| <p>Edited by Carmen Avendan˜o And J. Carlos Mene´Ndez. 3. Heterocyclic Chemistry, Taylor and Francis, 2020, Edited by John A. Joule. 4. Organic reaction mechanisms, John Wiley & Sons, 2008, Edited by A. C. Knipe</p> | <p>2. Roitt's essential immunology, 13th .edition, 2017 3. Lippincott illustrated microbiology, 4th .edition, 2020 3.Pathophysiology, Concepts of altered health states, Porth & Matfin, 8th .edition</p> | <p>Therapeutics: The Clinical Use of Drugs (Koda Kimble and Youngs Applied Therapeutics) Twelfth, North American Edition by Caroline S Zeind, Michael G Carvalho</p> | <p>Sciences. Sixth Edition 2. Daan J. A. Crommelin, Robert D. Sindelar Bernd Meibohm, Editors. Pharmaceutical Biotechnology Fundamentals and Applications. Fifth Edition</p> | <p>Williamson EM. Fundamentals of Pharmacognosy and Phytotherapy: Fundamentals of Pharmacognosy and Phytotherapy E-Book. Elsevier Health Sciences; 2012</p> |
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