

SYLLABUS OF DRUG REGULATORY AUTHORITY OF PAKISTAN

1. Deputy Director (Technical Cadre) (RO-13)

S r - N o -	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	<p>DRAP Act 2012, Drugs Act 1976 and Rules framed there under:</p> <ol style="list-style-type: none"> 1. The Drugs Licensing, Registration & Advertising Rules, 1976 2. The Drugs (Appellate Board) Rules, 1976 3. The Drugs (Import & Export) Rules, 1976 4. The Drugs (Federal Inspectors, Federal Drug Laboratory and Federal Government Analysis) Rules, 1976 5. The Drugs (Appellate Board) Rules, 1976 6. Drugs (Specifications) Rules, 1978 7. The Drug Research Rules, 1978 8. The Alternative Medicines and Health Products (Enlistment) Rules, 2014 9. The Medical Device Rules, 2017 10. The Bio Study Rules, 2017 11. The Ethical Marketing to Healthcare Professional Rules, 2021 12. The Pharmacovigilance Rules, 2022 13. Control of Narcotic Substances Act, 1997 14. UN Conventions on Controlled Substances 	30%	DRAP's official Website: www.dra.gov.pk
4	Subject Related (50%):		
	Pharmacology, Pharmacy Practice, Pharmaceutics / Drug Development	15%	<ol style="list-style-type: none"> 4. Rang and Dale's Pharmacology 5. Jennie Watson, Pharmacy Practice 6. Ansel's Pharmaceutical Dosage form and Drug Delivery System
	Pharmaceutical Chemistry, Analytical Chemistry, Pharmaceutical Microbiology	10%	<ol style="list-style-type: none"> 3. Wilson and Griswold's text book of Organic medical and pharmaceutical chemistry 4. Pharmaceutical Microbiology by Tim Sandle
	Pharmacognosy, Phytochemistry, Principles of Homeo, Alternative Medicines Fundamentals	10%	<ol style="list-style-type: none"> 3. Trease and Evan's Pharmacognosy 4. Wichtl M. Herbal Drugs and Phytopharmaceuticals

S r . N o .	Content	Weight age	Sources
	Guidelines: 3. ICH (Quality & Safety) 4. WHO (Production, Quality Control, Quality Assurance)	15%	https://ich.org/page/ich-guidelines (ICH Guidelines) Health products policy and standards (who.int) (WHO guidelines)

2. Assistant Director (Management Information Systems Division) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	Subject Related (80%):		
	Programming (Php/.Net)	30%	<ol style="list-style-type: none"> 1. .Net Programming (Practical Guide using C#) by Pradeep Tapadiya 2. PHP Programming with my Sql by Don Gosselin 3. SQL server 2016 Developers Guide by Dejan Sarka 4. HTML, CSS, JAVA Script, 3rd Edition by Julie C. Meloni 5. Web Programming with HTML, CSS, and JAVA Script by John Dean 6. Securing SQL Server by Denny Cherry 2nd Edition
	Databases (Mysql, SQL)	20%	
	Website Designing & Development (HTML, CSS, JAVA Scripting, CMS)	15%	
	Information Security (Database Security, Application Software Security)	15%	

3. Assistant Director (Legal Affairs Division) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	<p>Drugs Act 1976 & DRAP Act, 2012</p> <ol style="list-style-type: none"> 1. The Drugs (Licensing, Registering & Advertising) Rules, 1976 2. The Drugs (Import & Export) Rules, 1976 3. The Drug Research Rules, 1978 4. The Appellate Board Rules, 1976 5. The Drugs (Labelling & Packing) Rules, 1986 6. The Drugs (Specification) Rules, 1986 7. The Drugs (Federal Drugs Inspectors, FDL & FGA) Rules, 1976 8. Medical Devices Rules, 2017 9. Alternative Medicines & Health Products Rules, 2014 10. Drug Pricing Policy, 2018 <p>DRAP Service Regs, Accounting Proc & Civil Servants Act</p>	<p>20%</p> <p>10%</p>	<p>DRAP's official Website: www.dra.gov.pk</p> <p>Establishment Division's Website: www.establishment.gov.pk</p> <p>ESTA Code, 2021</p>
4	Subject Related (50%):		
	Constitution of Pakistan 1973	05%	Constitution of Islamic Republic of Pakistan, 1973 with case laws
	Criminal Procedure Code 1898 & Pakistan Penal Code Act, 1860	10%	CPC & PPC by M. Mahmood
	Code of Civil Procedure and Limitation Act, 1908	05%	Code of Civil Procedure by Amir Raza
	Qanun-e-Shahadat Order 1984	05%	Qanun-e-Shahadat Order 1984 by M. Mahmood
	Transfer of Property Act & Specific Relief Act	05%	Transfer of Property Act & Specific Relief Act
	Intellectual Property Law (Trade Mark & Patent Ordinances)	05%	Trade Mark Ordinance, 2001 and Patent Ordinance, 2000
	Control of Narcotics & Substance Act, 1997 & UN Conventions	05%	Control of Narcotics & Substance Act/Rules
	Import & Export Policy Orders, 2022 Income Tax Ord. 2001 & Sales Tax Act 1990	10%	Respective Acts and Orders

4. Assistant Director (Technical Cadre) (Pharmaceutical Evaluation / Drugs Licensing / Quality Assurance / Health & OTC / Controlled Drugs / Pharmacy Services / Biological Drugs / Medical Devices) (RO-12)

S r . N o .	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	DRAP Act 2012, Drugs Act 1976 and Rules: 1. Licensing, Registration & Advertising Rules, 1976 2. Appellate Board Rules, 1976 3. Import & Export Rules, 1976 4. Federal Inspectors, FDL & FGA Rules, 1976 5. Drugs (Specifications) Rules, 1978 6. Drug Research Rules, 1978 7. Alternative Medicines (Enlistment) Rules, 2014 8. Medical Device Rules, 2017 9. Bio Study Rules, 2017 10. Ethical Marketing Rules, 2021 11. Pharmacovigilance Rules, 2022 12. Control of Narcotic Substances Act, 1997 13. UN Conventions on Controlled Substances	30%	DRAP's official Website: www.dra.gov.pk
4	Subject Related (50%):		
	Pharmacology, Pharmacy Practice, Pharmaceutics / Drug Development	15%	1. Rang and Dale's Pharmacology 2. Jennie Watson, Pharmacy Practice 3. Ansel's Pharmaceutical Dosage form and Drug Delivery System
	Pharmaceutical Chemistry, Analytical Chemistry, Pharmaceutical Microbiology	10%	1. Wilson and Griswold's Organic Chemistry 2. Pharmaceutical Microbiology by Tim Sandle
	Pharmacognosy, Phytochemistry, Principles of Homeo, Alternative Medicines	05%	1. Trease and Evan's Pharmacognosy 2. Wichtl M. Herbal Drugs
	Guidelines: 1. ICH (Quality & Safety) 2. WHO (Production, Quality Control, Quality Assurance)	20%	ich.org (ICH Guidelines) who.int (WHO guidelines)

5. Assistant Director (Technical Cadre) (Subject Specialist-Microbiologist) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	<ol style="list-style-type: none"> 1. DRAP Act 2012, Drugs Act 1976 2. Licensing, Registration & Advertising Rules, 1976 3. Federal Inspectors, FDL & FGA Rules, 1976 4. Drugs (Specifications) Rules, 1978 5. Ethical Marketing Rules, 2021 	10%	Available on DRAP's Website
4	Subject Related (70%): Pharmaceutical Microbiology		
	<ol style="list-style-type: none"> 1. Laboratory evaluation of antimicrobial agents 2. Chemical disinfectants, antiseptics and preservatives 3. Sterilization procedures and sterility assurance 4. Sterile pharmaceutical products 5. Manufacturer and quality control of immunological products 	40%	Hugo & Russel's Pharmaceutical Microbiology 8th Edition
	WHO Guidelines <ol style="list-style-type: none"> 1. WHO TRS 961 Annex 2 2. WHO TRS 1052 Annex 4 	15%	WHO TRS 1052 Annex 4, Good Practices
	Microbiological examination of non-sterile products (61, 62) Sterility tests (71) Antibiotics - microbial assays (81) Bacterial endotoxins test (85)	15%	United States Pharmacopeia 2024

6. Assistant Director (Technical Cadre) (Subject Specialist-Chemist) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	<ol style="list-style-type: none"> 1. DRAP Act 2012, Drugs Act 1976 2. Licensing, Registration & Advertising Rules, 1976 3. Federal Inspectors, FDL & FGA Rules, 1976 4. Drugs (Specifications) Rules, 1978 5. Ethical Marketing Rules, 2021 	10%	Available on DRAP's Website
4	Subject Related (70%): Pharmaceutical Analytical Chemistry		
	<ol style="list-style-type: none"> 1. Fundamentals of bases, acids, solubility, stereochemistry 2. Chemical analysis of ingredients & preparations 3. Titration, Spectroscopic methods (UV-Vis, IR, Atomic) 4. Chromatography (Liquid, Gas) 5. Mass spectrometry 	40%	Introduction to Pharmaceutical Analytical Chemistry 2nd Edition
	WHO TRS 1052 Annex 4, WHO Good Practices	15%	WHO TRS 1052 Annex 4
	USP Reference standards (11), Chromatography (621), Dissolution (711), Uniformity of dosage units (905), Transfer of analytical procedures (1224)	15%	United States Pharmacopeia 2024

7. Assistant Director (Technical Cadre) (Subject Specialist-Bio-Medical Engineer) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	1. DRAP Act 2012, Drugs Act 1976 2. Federal Inspectors, FDL & FGA Rules, 1976 3. Ethical Marketing Rules, 2021	10%	Available on DRAP's Website
4	Subject Related (70%):		
	Non-invasive instrumentation and measurement: 1. Electrical Potentials and Magnetic Fields 2. Blood pressure 3. Ocular Tonometry 4. Ultrasound 5. Innovations in non-invasive instrumentation	40%	Non Invasive Instrumentation and Measurement in Medical Diagnosis, Taylor & Francis, 2nd Ed.
	Medical Instrumentation: 1. Clinical laboratory instrumentation 2. Chemical biosensors 3. Therapeutic and prosthetic devices 4. Flow and volume of blood 5. Bio-potential amplifiers WHO TRS 1019 Annex 3 (Validation)	20%	Medical Instrumentation: Application and Design, 5th Ed. John G. Webster.
	Medical Devices Rules 2017	10%	Available on DRAP's Website

8. Assistant Director (Technical Cadre) (Subject Specialist-Biotechnology) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	1. DRAP Act 2012, Drugs Act 1976 2. Licensing, Registration & Advertising Rules, 1976 3. Bio Study Rules, 2017 4. Ethical Marketing Rules, 2021 5. Pharmacovigilance Rules, 2022	10%	Available on DRAP's Website
4	Subject Related (70%):		
	Cell Biology / Molecular Biology	10%	Alberts B (Molecular Biology of the Cell), Karp (Cell & Mol. Biology)
	Organic Chemistry	10%	Clayden, Loudon, Sorrell, Finar, Carey, March
	Fundamentals of Genetics	10%	Snustad (Principals of Genetics), Klug (Concepts of Genetics)
	Molecular Biology (DNA/RNA, Replication)	10%	Freifelder (Molecular Biology), Alberts
	Biochemistry (Metabolism, Bioenergetics)	10%	Voet, Lehninger, Champe
	Immunology	10%	Kuby, Janeway, Roitt
	Recombinant DNA Technology	10%	Robert F.W., Dale, Meyers

9. Assistant Director (Budget & Accounts/Costing & Pricing) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	DRAP Act, 2012, Accounting Procedure & Service Regs Public Procurement Rules 2004 Pension Rules, GPF, TA/DA, FR & SR, GFR, Treasury Rules Income Tax Ord. 2001, Sales Tax Act 1990	40% (Total)	DRAP, PPRA, Finance Div, FBR websites
4	Subject Related (40%):		
	Financial Accounting & Management, Managerial & Cost Accounting	20%	
	International Financial Reporting Standards (IFRS)	10%	www.ifrs.org
	Auditing & International Standards on Auditing (ISAs)	10%	Auditing Books, www.iaasb.org

10. Assistant Director (Administration, HR & Logistic Division) (RO-12)

S r · N o ·	Content	Weight age	Sources
1	Verbal Reasoning	10%	
2	Analytical Reasoning	10%	
3	DRAP Act, Accounting Rules, Service Regs Civil Servant Act 1973, Leave/Seniority Rules Public Procurement Rules 2004, Staff Cars Rules Secretariat Instructions, Pension/GPF/TA/DA	30% (Total)	DRAP, Establishment Div, PPRA, Cabinet/ Finance websites
4	Subject Related (50%):		
	i. Human Resource Planning & Job Analysis ii. Training & Development of Employees iii. Strategic HRM & Organizational Dynamics	30%	1. Fundamentals of HR Management by Decenzo, Robbins 2. Human Resource Management by Garry Dessler
	iv. Performance Management System & Employee Benefits v. Leadership & Motivation	20%	3. Introducing HRM by Margaret Foot & Caroline Hook