

FEDERAL PUBLIC SERVICE COMMISSION
(Curriculum & Research Wing)

Schemes and Syllabi of Objective Type Test (MCQ)
relating to Posts in BS-16 & 17 under Advertisement No. 05/2025

Max Marks: 100

Qualifying Standard: 40%

(Note: Negative marking of 0.25/ wrong answer)

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
1.	146/2025	Programmer (BS-17), GHQ, Ministry of Defence.	Second Class or Grade "C" Master's degree in Computer Science / Information Technology or equivalent from a University recognized by HEC. OR Second Class or Grade 'C' Bachelor's degree in Computer Science / BIT (4 years duration) or equivalent from a University recognized by HEC.	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> ▪ Program Logic, ▪ Visual Basic, C++, Java, JQUERY, Unix/Red Hat Linux Operating System, ▪ Computer Networks and Internet, ▪ Development of Basic Algorithms, ▪ Designing Solution & Testing, ▪ Data types, ▪ Multiple Browsers, ▪ Search Engine Optimization, ▪ Hyper Text Markup Language (HTML), ▪ Web Development
2.	147/2025	Veterinary Officer (BS-17), Remount Veterinary & Farms Directorate, GHQ, Ministry of Defence.	Veterinary Graduate. (Registration with Pakistan Veterinary Medical Council).	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> ▪ Veterinary Pathology, ▪ Veterinary Parasitology, ▪ Veterinary Microbiology, ▪ Animal Nutrition, ▪ Animal Breeding & Genetics, ▪ Livestock Management, ▪ Poultry Husbandry, ▪ Animal Reproduction, ▪ Infectious Diseases of Bovines & Poultry.

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
3.	148/2025	Boiler Engineer (BS-17), Remount Veterinary & Farms Directorate, GHQ, Ministry of Defence.	<p>i. Three (3) years Diploma in Electrical or mechanical Engineering from a recognized Institute.</p> <p>ii. 1st class Boiler Engineer Certificate.</p> <p>iii. Three (3) years post qualification experience in the relevant field.</p> <p style="text-align: center;">OR</p> <p>i. 1st class Boiler Engineer Certificate.</p> <p>ii. Five (5) years post qualification experience in the relevant field.</p>	<p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Fundamental Design of Boiler ▪ Boiler Mountings, Accessories and Auxiliaries ▪ Draught System of Boilers ▪ Boiler Performance, ▪ Steam Engines and Condensers, ▪ Boiler Operation & Maintenance, ▪ Boiler Safety, ▪ Boiler Metallurgy, ▪ Boiler Protection and Interlocks, ▪ Boiler Pollution Control, ▪ Liquid/Solid Fuel Handling
4.	149/2025	Assistant Director (BS-17), Ministry of Religious Affairs and Interfaith Harmony.	Second Class or Grade 'C' Master's Degree in Islamic History / Islamic Studies / Arabic / Islamic Jurisprudence / L.LB (Shariah) or equivalent qualification from a University recognized by HEC.	<p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Islamic Code of Life: Salient features of Islamic Social System, Political System, Economic System, Judicial System and Administrative System ▪ Study of Seerah ▪ Islamic Civilization and Culture: Meanings and the vital elements, Role of civilisation, Distinctions of Islamic Civilization ▪ Islam and World: Impact of Islamic Civilization on the West and vice-versa, Muslim World and the Contemporary Challenges, Role of Islam in the modern world.
5.	150/2025	Clinical Psychologist (BS-17), Health Department Gilgit Baltistan, Ministry of Kashmir Affairs, Gilgit Baltistan and SAFRON.	Second Class or Grade 'C' Master's or Bachelor's (4 years duration) degree in Clinical Psychologist or equivalent qualification from a University / Institute recognized by the PMDC / HEC.	<p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Scientific studies of behaviour patterns and cognitive function ▪ Observing and interviewing individuals ▪ Diagnosis potential disorders ▪ Clinical psychology issues and disorders. ▪ Evaluation of patients through interviews and observations. ▪ Latest research and developments in psychiatry. ▪ Psychological, emotional, behavioural or organizational patterns and issues.

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6.	151/2025	Accountant (BS-16) , Staff Welfare Organization, Establishment Division	<p>Second Class or Grade 'C' Master's/ Bachelor's (4 years duration) degree in Business Administration (Finance) or Commerce or Statistics or Economics or Mathematics or banking or Accounting or Finance or equivalent qualification from a university recognized by HEC</p> <p>OR</p> <p>Second Class or Grade 'C' Bachelor's degree with ICMA one year post graduate Certificate or CA (Foundation) or ACCA (Knowledge level qualified) from a University / Institute recognized by the HEC.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Accounting Principles & Procedures, ▪ Scrutiny of Record for Audit Purposes, ▪ Journal, Ledger & Cash Book, ▪ Preparation of Annual Budget, ▪ Adjustment & Depreciation, ▪ Financial Planning & Cost Accounting, ▪ Heads of Account, Re-appropriation of Funds and Supplementary Grant, ▪ Public Procurement Rules, 2004
7.	152/2025	Studio Engineer (BS-17) , ICT Police, Ministry of Interior & Narcotics Control	<p>B.E. (Electrical) with Specialization in Electronics or equivalent qualification from a university recognized by HEC. Registration with PEC required.</p> <p>OR</p> <p>i. Three (3) years diploma in Electronics (DAE) or B. Tech. (Electronics) from a recognized Institute/University.</p> <p>ii. Two (2) years post qualification experience in handling and maintaining equipments of the Broadcasting/Radio Stations.</p>	<p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Power Generation/Transmission, ▪ Power and Digital Electronics, ▪ Electric Circuits, ▪ Semiconductor Devices, ▪ Logic Design & Switching Theory, ▪ <u>Transistors</u>: types, calculations of voltages and currents in simple transistor circuits. ▪ <u>Amplifier & Oscillators</u>: Working and classification of amplifiers, Class A and Class B Amplifiers, Feedback Amplifiers, Types of Feedback, RC Oscillators. ▪ <u>Integrated Circuits</u>: OP Amps, timers, flip flop, converters, filters. ▪ <u>Capacitor</u>: Capacitance, Capacitors in parallel and series

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8.	153/2025	Lecturer (Female) (BS-17) A. Biology/Zoology/Botany B. Chemistry C. Computer Science D. Economics E. Education F. English G. Geography H. Health & Physical Education I. Home Economics (Textile & Fashion Design) J. Home Economics (Food & Nutrition) K. Home Economics (Interior & Environmental Design) L. History M. Islamic Studies N. Mass communication O. Mathematics P. Pakistan Studies Q. Philosophy R. Physics S. Political Science T. Sociology U. Statistics V. Urdu. Islamabad Model Colleges, Federal Directorate of Education, Ministry of Federal Education and Professional Training	Second Class or Grade 'C' Master's degree or equivalent in the relevant subject.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Subject Test = 50 marks Part-III Professional Test = 30 marks Note: <ul style="list-style-type: none"> ▪ In Language Subject (i.e Urdu), English part for 20 marks will not be included. There will be 70% subject Test and 30% Professional Test. ▪ For the subject of Education, there should be two parts, part-I is English Test (20 Marks) and Part-II is Professional Test (80 Marks). 	For (A) Biology/Zoology/Botany Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II (Masters Level) <ul style="list-style-type: none"> ▪ Theories of Evolution, ▪ Nucleic Acids, ▪ Cell Division, ▪ Nutrition, ▪ Ecosystem, ▪ Mendelian laws of inheritance, ▪ Diagnostic Characteristics of all the phyla or invertebrates and chordates, ▪ Division of Plants ▪ Algae, Fungi, ▪ Bryophytes & Pteridophytes, ▪ Gymnosperms, Angiosperms, ▪ Plant Physiology, ▪ Ecology, Cytology, Genetics, ▪ Eco System, ▪ Classification of Fish, Reptiles, Mammals, Mollusks, Edinodermata, ▪ Theories of Evolution, ▪ Membrane System, ▪ Mammalian Gametogenesis and Fertilization, ▪ Mendelian laws of inheritance, ▪ Reproduction and Development, Part-III <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy For (B) Chemistry Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II (Masters Level) <ul style="list-style-type: none"> ▪ Nature, Properties & States of Matter, ▪ Electronic Structure, ▪ Bonding, ▪ Chemical Kinetics & Radioactivity, ▪ Synthetic Chemistry ▪ Polymers, ▪ Reaction Mechanism (electrophilic & nucleophilic substitution and addition reaction) ▪ Inorganic Chemistry, ▪ Thermodynamics, ▪ Electrochemistry,

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					<p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (C) Computer Science</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Computer Hardware/Software, ▪ Data Communication & Networking, ▪ C/C++ Language, ▪ Visual Basic, ▪ Operating System Unix/Linux ▪ Windows XP, 2000, ▪ Oracle/PLSQL, ▪ System Analysis & Design. ▪ Web Programming, <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology, ▪ Classroom Management and Discipline, ▪ Testing and Evaluation, ▪ Knowledge of Bloom's Taxonomy <p>For (D) Economics</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Micro Economics: Meaning, Scarcity and Opportunity Cost. ▪ Goals of Microeconomics Policy: Efficiency & equity ▪ Macro Economics: Basic Economic Concepts ▪ The theory of Factor Pricing ▪ Monetary Theory & Public Finance, ▪ Industrial Development in Pakistan ▪ Interest Free Banking in Pakistan ▪ Basic Statistics on Economy of Pakistan <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy

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					<p><u>For (E) Education</u></p> <p><u>Part-I (20 Marks)</u></p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p><u>Part-II (80 Marks)</u></p> <ul style="list-style-type: none"> • Development of Education in Pakistan, • Educational Reforms in Pakistan, • Education Policy 2009, its Targets and Achievements • Educational Psychology, • Educational Guidance & Counselling, • Educational Planning & Management, • Educational Administration and Supervision, • Classroom/Institutional Management and Discipline • Curriculum Development & Instructional Technology • Teaching Techniques & Methodology, • Testing & Evaluation. • Knowledge of Bloom's Taxonomy <p><u>For (F) English</u></p> <p><u>Part-I</u></p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p><u>Part-II (Masters Level)</u></p> <ul style="list-style-type: none"> ▪ English Literature 16th to 20th Century. ▪ Linguistics. ▪ English Language Teaching. ▪ Syntax. ▪ Diction. <p><u>Part-III</u></p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p>For (G) Geography</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Physical Geography ▪ Landform development, climate, oceans & seas, factor of climate and environmental change ▪ Geography of Pakistan, ▪ Human Geography ▪ Political Geography (State, National and Nation-State Geopolitics of uneven development) ▪ Statistical Geography, ▪ Climatology/Meteorology, ▪ Environmental Geography, ▪ GIS Techniques, <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (H) Health & Physical Education</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Philosophy of Physical Education, ▪ Psychology of Physical Education, ▪ Rules of games ▪ Basics of Human Anatomy ▪ Administrative and Management in Sports, ▪ Sports Nutrition, ▪ Trauma and Rehabilitation, ▪ Research Methodology in Physical Education ▪ Test, Measurement and Evaluation in Physical Education & Sports ▪ Sports Injuries, ▪ Sports with physical disabilities <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p>For (I) Home Economics (Textile & Fashion Design)</p> <p>Part-I</p> <ul style="list-style-type: none"> ▪ Vocabulary, Grammar Usage, Sentence Structuring <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Introduction to Home Economics ▪ Fundamentals of Food and Nutrition ▪ Nutrition Health and Prevention ▪ Entrepreneurship for home based industry ▪ House Keeping Management ▪ Methods of Research in Home Economics ▪ Childcare and Development Guidance ▪ Family Problems and Intervention strategies ▪ Textile Designing, Dying, & Printing ▪ Industrial Management ▪ Fashion Designing <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (J) Home Economics (Food & Nutrition)</p> <p>Part-I</p> <ul style="list-style-type: none"> ▪ Vocabulary, Grammar Usage, Sentence Structuring <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Introduction to Home Economics ▪ Fundamentals of Food and Nutrition ▪ Nutrition Health and Prevention ▪ Entrepreneurship for home based industry ▪ House Keeping Management ▪ Methods of Research in Home Economics ▪ Childcare and Development Guidance ▪ Family Problems and Intervention strategies ▪ Food Technology and Microbiology ▪ Applied Nutrition ▪ Nutrition Health & Prevention <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p><u>For (K) Home Economics (Interior & Environmental Design)</u></p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Introduction to Home Economics ▪ Fundamentals of Food and Nutrition ▪ Nutrition Health and Prevention ▪ Entrepreneurship for home based industry ▪ House Keeping Management ▪ Methods of Research in Home Economics ▪ Childcare and Development Guidance ▪ Family Problems and Intervention strategies ▪ Interior Design ▪ Architecture & Interior Designing ▪ Interior Design: Planning & organization ▪ Environmental Management <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (L) History</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ The Prophetic Age (570-632) ▪ The Pious Caliphate (632-660) ▪ Political System of Islam under the Prophet (PBUH) and the Pious Caliphate ▪ Institutional Development of the Muslim Civilisation (Umayyad, Abbasid, Crusades, Ottoman Empire) ▪ Muslim Freedom Movement in India (1857-1947) ▪ Ideology of Pakistan ▪ The Kashmir Issue ▪ European History ▪ History of USA ▪ Pakistan and Neighbouring Countries ▪ Research Methodology & Philosophy of History

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					<p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (M) Islamic Studies</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <p>قرآن کا بنیادی موضوع / متن ☆ سیرت انبیاء ﷺ ☆ فقہ: جامعیت، اختلاف رائے اور عصر حاضر کے تنازع ☆ میں مذہب کی تحریخ ☆ تعارف اسلام ☆ انسانی زندگی میں دین کی اہمیت ☆ اسلام کے نہایات پہلو ☆ اسلامی عقائد کے انفرادی اور اجتماعی اثرات ☆ انسانی حقوق - اسلام کی نظر میں ☆ اسلام اور عصر حاضر کے پیشگوئی ☆ اسلامی نظام حکمرانی کا دھانچہ ☆ سرکاری طاری میں کی ذمہ داریاں ☆ اسلامی تضابط، ریالت ☆</p> <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (N) Mass Communication</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Pros and Cons of Social Media ▪ Press laws in Pakistan ▪ Newsprint Control Ordinance 1971 ▪ Advertisement and Public Policy ▪ Code of Ethics ▪ Communication theories of social change ▪ Newspaper Employees (Condition of service) Act 1973 ▪ PEMRA Ordinance, 2007 ▪ Reporting and Writing

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					<p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (O) Mathematics</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Calculus/Differentiation, Integration, Limits of continuity ▪ General Theorems (Rolle's Theorem, Mean Value Theorem) ▪ Areas and Volumes, centre of Mass ▪ Computing Tools for Mathematicians, ▪ Mathematical Statistics, ▪ Mathematical Spaces (Sets, Vector Spaces, Metric Spaces, topological spaces Tensors, ▪ Differential Equations. <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (P) Pakistan Studies</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Ideology of Pakistan in light of speeches and statements of Allama Iqbal and Quaid-e-Azam ▪ Pakistan Movement 1857-1947 ▪ Current Issues of Pakistan (challenges to National Security, Economic Challenges, Pakistan's War on Terror, ▪ Geography of Pakistan <ul style="list-style-type: none"> ✓ Land and People of Pakistan ✓ Pakistan and CPEC ✓ Natural Resources of Pakistan, ▪ Latest Constitutional Amendments, <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy

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					<p>For (Q) Philosophy</p> <p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Philosophical Methods ▪ Epistemology ▪ Ontology ▪ Ethics ▪ Muslim Thinkers ▪ Contemporary Philosophical Movements <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (R) Physics</p> <p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Mechanics ▪ Heat and Thermodynamics, ▪ Waves and Optics, ▪ Electrostatic, ▪ Electricity and Magnetism, ▪ Modern and Quantum Physics, ▪ Nuclear Physics, ▪ Basic Solid State Physics, <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p>For (S) Political Science</p> <p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Western Political Thought (Plato, Aristotle, Machiavelli, Montesquieu, Hobbes, Locke, Rousseau, Marx, Lenin, Frances Fukuyama) ▪ Muslim Political Thought (Al-Farabi, Al-Mawardi, Imam Ghazali, Ibn Khaldun, Shah Waliullah, Allama Muhammad Iqbal) ▪ State System: Islamic Concept ▪ Political Institutions and Role of Government ▪ Political Ideologies (Capitalism, Marxism, Communism, Nationalism, Islamic Political Ideology) ▪ Government and Politics in Pakistan: Analysis of 1956, 1962, 1973 Constitutions ▪ History of International Relations: Post World War-II Period. ▪ Comparative Study of Political System (Turkey, India, Malaysia and China) <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (T) Sociology</p> <p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Meaning, Characteristics and Elements of Culture ▪ Society: Meaning and Characteristics ▪ Social Contract Theory & Organismic Theory ▪ Sociological Theories (Ibn-i-Khaldun, Spencer, Max Weber, Karl Marx) ▪ Methods of Sociological Research, ▪ Social Institutions: Nature, Genesis & Function ▪ Mechanism of Social Control: Formal & Informal ▪ Social and Cultural Change & Social Policy: Processes & Effects ▪ Community organization and development ▪ Social Problems in Pakistan

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					<p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (U) Statistics</p> <p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Measures of Central Tendency, ▪ Measures of Dispersion or Variation, ▪ Regression and Correlation, ▪ Index Numbers, ▪ Probability Theory, ▪ Probability Distributions, ▪ Presentation of Data ▪ Time Series Analysis, ▪ Statistical Inference, ▪ Sampling Theory and Techniques, ▪ Analysis of Variance, ▪ Experimental Design <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy <p>For (V) Urdu</p> <p>Part-I (Masters Level) (70 Marks)</p> <ul style="list-style-type: none"> ● اردو ذخیرہ الفاظ ● اردو جملے کا ڈھانچہ ● اردو قواعد کا استعمال ● لسانیات ● غالیبیات ● اقبالیات ● تنقید ● طنز و مزاح

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					<p>Part-II (30 Marks)</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation ▪ Knowledge of Bloom's Taxonomy
9.	154/2025	Sports Coach (Cricket) (BS-16) , GB Sports Board, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON.	<ul style="list-style-type: none"> i. At least Second Class or Grade 'C' Bachelor's (Associate degree with 02 years duration) from a University recognized by the HEC. ii. Certified level I and II courses in respective game from Pakistan Cricket Board. 	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test = 80 marks</p>	<p>Part-I Grammar Usage, Sentence Structuring.</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Technical Coaching according to different age groups ▪ Physical Fitness (Endurance, Agility, Flexibility, Strength & Conditioning) ▪ Sports Psychology ▪ Sports Nutrition ▪ Hydration ▪ Sports Medicine/Injury Prevention/Rehabilitation/ CPR & First Aid ▪ Rules about Cricket Grounds, Playing condition and delivery of balls ▪ PCB Code of Conduct for Match Officials and Match Officials Support Personnel 2021 ▪ Code of Conduct for Players and Player Support Personnel 2021 ▪ The Pakistan Cricket Board's Anti Doping Rules ▪ Use of technology in Cricket (Coaching and Match Analysis Software) ▪ Biomechanics in Cricket.

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
10.	155/2025	Sports Coach (Football) (BS-16) , GB Sports Board, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON	i. At least Second Class or Grade 'C' Bachelor's (Associate degree with 02 years duration) from a University recognized by the HEC. ii. Certified level I and II courses in respective game from PSB/ PFF/ AFC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test = 80 marks	Part-I Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> ▪ Technical Coaching according to different age groups ▪ Physical Fitness (Endurance, Agility, Flexibility, Strength & Conditioning) ▪ Sports Psychology ▪ Sports Nutrition ▪ Hydration ▪ Sports Medicine/Injury Prevention/Rehabilitation/ CPR & First Aid ▪ Introduction & History of Football game ▪ International & national organizing bodies for Football ▪ Introduction to the Football ground & Playfield ▪ Equipments & basic measurement in Football ▪ Number of team players, major events, Match duration, point scoring system in Football. ▪ Rules & Regulation of the Football game ▪ Officials & their Responsibilities in Football game ▪ Penalties in Football game
11.	156/2025	Superintendent (BS-17) , Communication and Works Department, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON.	Second Class or Grade 'C' Master's or Bachelor's (4 years education) degree in Business Administration / Public Administration / Human Resources Management or equivalent qualification from a University recognized by the HEC. OR Second Class or Grade 'C' Bachelor's degree or equivalent with five (5) years' post qualification experience of dealing with Administrative/Establishment/ Accounts matters.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test= 80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> ▪ Human Resource Management ▪ Civil Servant Act 1973 and Rules made thereunder ▪ Public Procurement Rules 2004 ▪ Rules of Business, 1973 as amended from time to time ▪ Secretariat Instructions and Office Procedures ▪ System of Financial Control and Budgeting 2006 ▪ Basic Computer Operation in MS Office

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
12.	157/2025	Assistant Admin Officer (BS-16) , Communication and Works Department, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON.	Second Class or Grade 'C' Bachelor's degree or equivalent from a University recognized by HEC with two (2) years' post qualification experience of dealing with Administrative/ Establishment/ Accounts matters.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test= 80 marks	Part-I Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none">▪ Human Resource Management▪ Civil Servant Act 1973 and Rules made thereunder▪ Public Procurement Rules 2004▪ Rules of Business, 1973 as amended▪ Secretariat Instructions and Office Procedures▪ System of Financial Control and Budgeting 2006▪ Accounting Principles & Procedures,▪ Scrutiny of Records for Audit Purposes▪ Journal, Ledger & Cash Book,▪ Preparation of Annual Budget,▪ Basic Computer Operation in MS Office
13.	158/2025	Office Assistant (BS-16) , Agriculture, Livestock and Fisheries Department, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON.	At least Second Class or Grade 'C' Bachelor's (02 years duration) degree or equivalent qualification from a University recognized by the HEC.	 Part-I English = 20 marks Part-II General Intelligence Test = 80 marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none">▪ Basic Arithmetic<ul style="list-style-type: none">– Algebra– Ratios– Percentages– Arithmetic Means▪ Current Affairs.<ul style="list-style-type: none">– Issues/Challenges at National and International Level during the last 5 years▪ Pakistan Affairs & Islamic Studies<ul style="list-style-type: none">– Basic Level knowledge▪ Basic Computer Operation in MS Office
14.	159/2025	Assistant Executive Engineer (Civil) (BS-17) , Communication and Works Department, Gilgit Baltistan, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON.	i. Bachelor's degree in Civil Engineering or equivalent qualification recognized by PEC. ii. Proof of Registration from PEC required.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none">▪ Soil Mechanics & Foundation Engineering▪ Surveying & Levelling▪ Costing and Estimation▪ Construction Management▪ Building Material & Building Construction▪ Structural Design Applications▪ Concrete Technology & R.C.C Structure Design▪ Preparation of PC-1 for Infrastructure Projects▪ Project Management & Supervision.▪ Basic IT/Computer Knowledge

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
15.	161/2025	Database Administrator (BS-17) , Office of the Attorney General for Pakistan, Ministry of Law and Justice.	Second Class or Grade 'C' Master's/ Bachelor's (04 years duration) degree in Computer Engineering or Software Engineering or System Engineering or Computer Science or Information Technology or equivalent qualification from a University recognized by HEC.	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II ▪ Introduction to Oracle Database and SQL ▪ Modifying Information in Multiple Databases ▪ Backup and Recovery ▪ Managing Constraints and Indexes ▪ Managing Tables and views ▪ Managing Users and Security ▪ Oracle Database Server Architecture
16.	162/2025	Junior Executive / Proof Reader (BS-16) , Ministry of Law and Justice.	Second Class or Grade 'C' LLB or equivalent qualification from a University recognized by the HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring Part-II ▪ Core courses of L.LB. Degree Program. ▪ Process of filing cases in the Courts.
17.	163/2025	Assistant Programmer (BS-17) Military Engineering Services (MES), Ministry of Defence.	Second Class or Grade "C" Master's or Bachelor's (4 years duration) degree in Computer Science / Information Technology/ Software Engineering / Computer Engineering / Computer System Engineering or equivalent qualification from a University recognized by the HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar usage, Sentence Structuring Part-II ▪ Program Logic, ▪ Visual Basic, C++, Java, JQUERY, Unix/Red Hat Linux Operating System, ▪ Computer Networks and Internet, ▪ Development of Basic Algorithms, ▪ Designing Solution & Testing, ▪ Data types, ▪ Multiple Browsers, ▪ Search Engine Optimization, ▪ Hyper Text Markup Language (HTML), ▪ Web Development
18.	164/2025	Network Administrator (BS-17) , Military Engineering Services (MES), Ministry of Defence.	Second Class or Grade "C" Master's or Bachelor's (4 years duration) degree in Computer Science / Information Technology/ Software Engineering / Computer Engineering / Computer System Engineering or equivalent qualification from a University recognized by the HEC / PEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar usage, Sentence Structuring Part-II ▪ Types of Networks (LAN, WAN, Internet, Intranet) ▪ Network Topologies, ▪ Network Management ▪ Communication Protocols ▪ OSI model ▪ Operating Systems (Windows, Linux) ▪ Transmission Mediums, Direction and Modes ▪ Network Devices (Switch, Routers, and Modem), ▪ Network security issues (Viruses, Firewall and unauthorized access),

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
19.	166/2025	Deputy District Attorney (BS-17) , Law and Prosecution Department Gilgit Baltistan, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON	i. Second Class or Grade 'C' Bachelor's degree in Law or equivalent qualification from a University / College recognized by the HEC. ii. One (1) years post qualification experience in litigation / legal / judicial matters in a Public or Private Sector Organization.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar usage, Sentence Structuring Part-II <ul style="list-style-type: none"> ▪ Core courses of LL.B. Degree Programme ▪ Role of Attorney in Defending/ Pleading the Court Cases ▪ Steps involved in Processing of Legal Cases. ▪ Important principles established in case law.
20.	167/2025	Assistant Deputy Public Prosecutor (BS-16) , Law and Prosecution Department Gilgit Baltistan, Ministry of Kashmir Affairs Gilgit Baltistan and SAFRON.	Second Class or Grade 'C' Bachelor's degree in Law or equivalent qualification from a University / College recognized by the HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> ▪ Core courses of L.LB. Degree Program. ▪ Process of filing cases in the Courts.
21.	170/2025	Assistant Armament Supply Officer (BS-16) , Pakistan Navy, Ministry of Defence.	i. Second Class or Grade 'C' Bachelor's degree in Science with Physics / Chemistry. ii. Three (3) years post qualification experience in Ammunition matters. OR Master's degree in Physics / Chemistry.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II General Science Test = 80 marks	Part-I Grammar Usage, Sentence Structuring Part-II Physics: <ul style="list-style-type: none"> ▪ Heat & Thermodynamics, ▪ Electrostatics, ▪ Electromagnetism, ▪ Motion & Force, ▪ Work, Energy, ▪ Sound, ▪ Gravitational Force, Chemistry: <ul style="list-style-type: none"> ▪ Metallurgy, ▪ Thermodynamics, ▪ Nature, Properties and States of Matter, ▪ Gases, Liquids & Solids, ▪ Organic Chemistry
22.	172/2025	Senior Scientific Assistant (SSA) (BS-16) , Pakistan Navy, Ministry of Defence.	i. Second Class or Grade 'C' Bachelor's degree in Sciences with Chemistry / Chemical Technology. ii. Three (3) years post qualification experience in the field of prescribed qualification.	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> ▪ Thermodynamics, ▪ Nature, Properties and States of Matter, ▪ Gases, Liquids & Solids, ▪ Organic Chemistry ▪ In-Organic Chemistry

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
23.	173/2025	Labour Welfare and Safety Officer (BS-16) , Pakistan Navy, Ministry of Defence.	i. Second Class or Grade 'C' Bachelor's degree with Sociology/ Social Work. ii. Three (3) years post qualification experience in Labour Welfare.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> Community Organization and Development, Social Research & Statistics, Organizational Behaviour and Human Resources, Social Welfare Policy and Administration, Criminology and its Remedial Measures, Methods of Counselling & Guidance Services Environmental Sociology Labour Policy, 2010
24.	174/2025	Inspector of Police (Male) (BS-16) , Pakistan Navy, Ministry of Defence.	i. Second Class or Grade 'C' Bachelor's degree. ii. Three (3) years post qualification experience in Armed Forces / Civil Armed Forces/ Police.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II General Intelligence & Professional Test=80 Marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> Basic Arithmetic <ul style="list-style-type: none"> Algebra Ratios Percentages Arithmetic Means Current Affairs. <ul style="list-style-type: none"> Issues/Challenges at National and International Level during the last 5 years Basic Pakistan Affairs & Islamic Studies Basic Computer Operation in MS Office Security measures taken in Sabotage/Terrorism
25.	175/2025	Assistant Naval Store Officer (BS-16) , Pak Navy, Ministry of Defence.	i. Second Class or Grade 'C' Bachelor's degree. ii. Three (3) years post qualification experience in Store Management. OR i. Ex CPOs / POs. ii. Matriculation or HET. ii. Five (5) years post qualification experience in Store Management.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II General Intelligence/ Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> General Science Basic knowledge of I.T Procedures of Receipt and Issue of Stores Stores procedures with relation to following topics:- <ul style="list-style-type: none"> Stock Taking Care and preservation of Equipment and Stores Ware House Management Public Procurement Rules, 2004

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
26.	176/2025	Nursing Officer (BS-16) , Naval Headquarters, Ministry of Defence.	<p>i. Second Class or Grade 'C' Bachelor's degree in Nursing or equivalent qualification from a College / University / Institute recognized by PNC / HEC.</p> <p>OR</p> <p>Three (3) years Diploma in General Nursing or equivalent qualification from a College/ University/ Institute recognized by PNC / HEC with One (1) year Course / Certificate in Midwifery (for females) or 01 year Course/Certificate in Nursing related field in lieu of Midwifery (for males).</p> <p>ii. Valid Registration with PNC.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Introduction to Midwifery and Obstetrical Nursing ▪ Introduction to Nursing Research ▪ Introduction to Nursing Theories ▪ Community Health Nursing ▪ Management of Nursing Service & Education ▪ Critical Care nursing ▪ Child Health Nursing ▪ Medical & Surgical Nursing ▪ Teaching and Learning Principles/ Practices ▪ Leadership/Management in Nursing
27.	177/2025	Hardware Technician (BS-16) , Ministry of Information and Broadcasting.	<p>Second Class or Grade 'C' Bachelor's degree in Computer Science / IT or equivalent qualification from a University recognized by the Higher Education Commission.</p> <p>OR</p> <p>i. Second Class or Grade 'C' Bachelor's degree from a University recognized by HEC and a Certificate / Diploma in Repair / Maintenance of Computer Equipment from an HEC recognized Institute.</p> <p>ii. Two (2) years' post qualification experience of Maintenance / Repairing of Computer hardware.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Computer Hardware Concepts ▪ Computer Hardware Components and Micro Processor ▪ Mother Board Circuits and Peripheral Devices ▪ Preventive Maintenance and Trouble Shooting ▪ Principles of hardware control Operating Systems (Windows, Linux) ▪ Installation and troubleshooting related to different hardware, software and applications ▪ Types of networks (LAN, WAN, Internet, Intranet etc.) ▪ Network Devices (Switch, Routers, and Modem),

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
28.	178/2025	Website Manager (BS-17), Federal Public Service Commission.	<p>Second Class or Grade 'C' Master's Degree in Computer Science or Information Technology or equivalent qualification from a University recognized by the HEC.</p> <p>OR</p> <p>Second Class or Grade 'C' Bachelor's (4 years duration) degree of BCS or BS (IT) or BS (CS) or equivalent qualification from a University recognized by HEC.</p> <p>OR</p> <p>Second Class or Grade 'C' Bachelor's Degree in Software Engineering or Computer Engineering or Computer System Engineering or equivalent qualification from a University recognized by the HEC with registration from Pakistan Engineering Council.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English =20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I</p> <p>Vocabulary, Grammar usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Introduction to Web, ▪ Web Architecture, ▪ Multiple Browsers, ▪ Search Engine Optimization, ▪ Graphic Elements, ▪ Page Styles and Layouts, ▪ Web Server Functionality, ▪ Configuring a Web Server, ▪ Relational Databases and Web, ▪ Java Script for Web development, ▪ Multimedia and Web, ▪ Fundamentals of XML and XHTML, ▪ Search and downloading of information and required data.
29.	179/2025	Assistant Network Administrator (BS-16), Federal Public Service Commission.	<p>Second Class or Grade 'C' Master's Degree in Computer Science or Information Technology or equivalent qualification from a University recognized by the HEC.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I</p> <p>Grammar usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> ▪ Types of networks (LAN, WAN, Internet, Intranet) ▪ Network Topologies, ▪ Network Management ▪ Communication Protocols ▪ OSI model ▪ Operating Systems (Windows, Linux) ▪ Transmission Mediums, Direction and Modes ▪ Network Devices (Switch, Routers, and Modem), ▪ Network security issues (Viruses, Firewall and unauthorized access),

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
30.	182/2025	Assistant Director (Microbiology) (BS-17) , Marine Fisheries Department, Ministry of Maritime Affairs.	Second Class or Grade 'C' Master's or Bachelor's (4 years duration) in Micro-Biology or equivalent qualification from a University recognized by the HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II ▪ Introductory Biochemistry ▪ Molecular Biology ▪ Microbiology ▪ Cell Biology ▪ Mycology ▪ Immunology ▪ Biotechnology ▪ Research Methodology
31.	183/2025	Store & Accounts Officer (BS-16) , Marine Fisheries Department, Ministry of Maritime Affairs.	Second Class or Grade 'C' Bachelor's (4 years duration) in Business Administration / Public Administration / Commerce / Accounting & Finance or equivalent qualification from a University recognized by the HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II ▪ Human Resource Management ▪ Procedures of Receipt and Issue of Stores ▪ Stores procedures with relation to following topics:- a. Stock Taking b. Care and preservation of Equipment and Stores c. Ware House Management ▪ Preparation of Tender Documents ▪ Rules for public auction ▪ Strategies of Audit ▪ Basic Knowledge of MS Office
32.	184/2025	Research Officer (BS-17) , Erstwhile Institute of Optronics (IOP), Ministry of Defence Production.	Second Class or Grade 'C' Master's degree in Physics / Applied Optics / Laser Physics OR B.E. (Electrical / Electronics) / Control Engineering or equivalent qualification from a University recognized by the HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II ▪ Geometrical Optics ▪ Polarization ▪ Interference ▪ Diffraction ▪ Continuous Wave (CW) and pulsed lasers ▪ Lasers Systems ▪ Laser applications ▪ Report Writing and Presentation Skills ▪ Research Methodology

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
33.	185/2025	Research Officer (BS-17) , Erstwhile ARDE, Ministry of Defence Production.	Bachelor's Degree of Engineering in Electrical / Mechanical / Electronics or Metallurgy. OR Second Class or Grade 'C' M.Sc. in Physics / Math or Metallurgy.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none">• <u>Transistors</u>: types, calculations of voltages and currents in simple transistor circuits.• <u>Amplifier & Oscillators</u>: Working and classification of amplifiers, Class A and Class B Amplifiers, Feedback Amplifiers, Types of Feedback, RC Oscillators.• <u>Integrated Circuits</u>: OP Amps, timers, flip flop, converters, filters.• <u>Telecommunications</u>: EM theory, antennas, antenna gain, free space loss, fading. Modulations (AM, FM, PM, PWM, Delta, FSK, ASK, PSK), Error correction, Demodulation, Detectors, Transmitter, Receivers.▪ <u>Metallurgy</u>: Types of bonding and basic principles of structure of materials, crystalline and amorphous materials. Crystal system, Allotropy, Rotational and Reflection Symmetries, Crystalline defects, Ordered and Disordered solutions. Crystallization; Solidification, dendrites, Grain boundaries, Grain size. Material characterization tools such as X-Ray diffraction, optical and electron microscopy.
34.	186/2025	Assistant Technical Officer (BS-16) , Erstwhile Institute of Optronics (IOP), Ministry of Defence Production.	i. Second Class or Grade 'C' three (3) years Diploma of Associate Engineering in Mechanical / Electrical / Electronics / Instrumentation Technology or equivalent qualification from a recognized Polytechnic Institute / College. ii. Four (4) years post Diploma experience in a recognized Institute / Lab / Workshop / Production facility or Academic Institution.	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none">▪ Basic Electronics and Test Equipments▪ Communication Principles▪ Fundamentals of Wireless Communication▪ Basics of Computer Software/Hardware▪ Transmission System▪ Research Methodology

Schemes and Syllabi of Objective Type Test (MCQ) relating to Posts in BS-18 & Above under Advertisement No. 05/2025

Case No.	F.4-160/2025-R
Particulars of post	Assistant Professor (Male) (BS-18) , Higher, Technical & Special Education Department Gilgit Baltistan, Ministry of Kashmir Affairs Gilgit-Baltistan and SAFRON.
Minimum Qualification & Experience:	<p>i. Ph.D. degree in the relevant subject from a University recognized by the HEC.</p> <p>ii. One years' post qualification teaching and administrative experience at a College / University level.</p> <p style="text-align: center;">OR</p> <p>i. M. Phil degree in the relevant subject from a University recognized by the HEC.</p> <p>ii. Three (3) years' post qualification teaching and administrative experience at College / University level.</p> <p style="text-align: center;">OR</p> <p>i. Second Class or Grade 'C' Master's degree in the relevant subject from a University recognized by the HEC.</p> <p>ii. Five (5) years' post qualification teaching and administrative experience at College / University level.</p>

Categories:

- A. Botany
- B. Computer Science
- C. Economics
- D. Education
- E. English
- F. Geography
- G. Sociology
- H. Urdu
- I. Zoology

Max Marks: 200

Qualifying Standard: 50%

(Note: Negative marking of 0.25/ wrong answer)

Paper-I (For all Categories): 100 Marks (MCQ)

I. English (50 Marks)

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring
- Sentence Correction
- Grouping of Words
- Pairs of Words
- Idiomatic Phrases
- Synonyms/ Antonyms
- Translation

II. Teaching Methodology (50 Marks)

- Teaching Methodology
- Elements of Curriculum.
- Curriculum Development Process:
- Classroom Communication
- Classroom Assessment and Evaluation
- Types of Test and characteristics of a Good Test
- Research Instruments

Paper-II: 100 Marks (MCQ) (For Botany)

I. Algae, Fungi and Bryophytes

- Phycology: Distribution, Classification, Structure, Life History and Economic importance of the main groups of Algae.
- Mycology and Plant Pathology: Structure, Reproduction, Classification and Economic importance of the main groups of Fungi. Diseases of economically important crops and general principles of their control
- Bryology: Structure and reproduction of bryophytes, Evolution of Gametophyte and Sporophyte.

II. Anatomy and Embryology

- Primary and secondary tissues. Meristems. Secondary growth in dicot stem. Anatomy of leaf, stem and root.
- Micro and megasporogenesis, pollination mechanism, fertilization, development of Embryo and Endosperm, Seed dispersal.

III. Plant Physiology

- Plant water relations, Osmotic Quantities, component potentials of water and their role in transport, water absorption by roots, transpiration. Role of essential mineral elements and their uptake. Plant hormones. Photoperiodism, Vernalization. Dormancy and Seed germination. Enzymes.
- Photosynthesis: Plant pigments, Light reaction, CO₂ fixation, Mechanism of photophosphorylation.
- Respiration: Glycolysis, Kreb cycle, Mechanism of oxidative phosphorylation.

IV. Ecology

- Influence of climatic, edaphic and biotic factors on plant growth. Vegetation sampling techniques. Concepts of ecosystems and their productivity, ecological energetics, Pyramids (of numbers, biomass and energy), trophic levels, food chains and food webs. Biogeochemical cycles (Hydrological and Nitrogen). Succession.
- Causes and reclamation of soil salinity and water logging in Pakistan. Soil erosion, its control and soil conservation methods. Deforestation. Biodiversity conservation. Pollution.

V. Cytology

- Cell cycle, cellular morphology, chemistry of cell wall and cell membrane, cell to cell communication, plant tissue and cell culture, cell senescence and cell death.
- Ultra-structure of various cell organelles: Mitochondria, Golgi bodies, Endoplasmic reticulum, Plastids, Ribosomes, Glyoxysomes, Vacuoles, Nucleus.

VI. Molecular Biology

- Nucleic acids, DNA as hereditary material, DNA replication, Transcription, Genetic code, Protein synthesis, Genetic engineering and its application, Genetically Modified Organisms (GMO).

Paper-II: 100 Marks (MCQ) (For Computer Science)

I. Computer Architecture

Microprocessor Bus Structure (Address/Data/Control), Registers and Flags, Storage Hierarchy (Main/Virtual/ Cache/ Secondary memory), Peripheral communication, CPU, ALU, Principles of Instruction Set Design, Multiprocessors & Thread Level Parallelism.

II. Object Oriented Programming

Data types, control structures, functions, arrays, classes, methods, object and encapsulation; constructors and destructors

III. Data Structure and Algorithms

Stack and Queue, Sequential Search, Binary Search, Bubble sort, Merge sort, Quick sort, Insertion sort, Selection Sort, Linked Lists

IV. Database Management Systems

Database design, functional dependencies and normal forms, concurrency control and recovery techniques, Database security and authorization

V. Computer Communications and Networks

Asynchronous and Synchronous transmission, LAN/WAN/MAN, Network layers, Transport layer protocols TCP/IP, UDP,

VI. Operating Systems

Process and CPU management, Multithreading, Deadlocks, Memory management and virtual memory, External Fragmentation, Paging and Demand Paging, File management systems, Scheduling and dispatch, Introduction to concurrency

Paper-II: 100 Marks (MCQ) (For Economics)

I. Micro Economics

Consumer behaviour, Determination of market demand and supply i.e. concept of elasticity of Demand & Supply, Static, Comparative Static Analysis, Distinction between partial and general equilibrium analysis (basic level) theory of the Firm, Producer's equilibrium, Pricing factors of production

II. Macro Economics

Basic Economic Concepts, National Income Accounting, Consumption Function, Multiplier, Accelerator, Component of Aggregate Demand, Labour Demand and Supply, Un-Employment, Determination of equilibrium level of income and output (at least with reference to two or three school of thought), Inflation.

III. Public Financing

Government expenditure, Sources of Government Revenue, Privatization, Taxes and non-taxes, Incidence of different taxes, Public Debt, Objectives, methods of repayment, Deficit financing, General Equilibrium Analysis, Welfare Economics, Fiscal Policy.

IV. Role of Foreign Trade and Aid in Economic Development

Trends in Pakistan's Balance of Payments, Terms of Trade, Changes in direction of trade, Trends in Pakistan's major exports and imports, Causes of significant changes in the trends, the role of migration and remittances in Pakistan's economy, costs and benefits of Foreign Aid, Role of Foreign Investment.

V. Major Issues in Pakistan Economy

Energy crisis, Corruption, Bad governance, External debt accumulation and dependency, Unemployment, Income inequality, Inflation, Fiscal and trade deficits, Balance of payment issues, Shortage of irrigation water.

Paper-II: 100 Marks (MCQ) (For Education)

I. Foundation of Education

- Educational Process
- Role of education in Nation Building, National cohesion and integration, Character building, Human resource development, World peace and prosperity
- Philosophical Foundations of Education
- Psychological Foundation of Education
- Sociological Foundations of Education
- Islamic Concept Education

II. Process of Teaching and Teaching Strategies

- Process of Classroom Communication
- Factors affecting Classroom Communication
- Barriers to Classroom Communications
- Use of Instructional Materials and Media
- Information and Communication Technologies (ICTs)

III. Education Assessment and Evaluation

- Concept of Classroom Assessment and Evaluation
- Distinction between Assessment, Evaluation and Measurement
- Approaches to Evaluation: Formative Evaluation; Summative Evaluation
- Types of Test: Essay Type; Objective Type: Multiple Choice, True-False Items, Matching Type; Principles of Construction of these Test
- Achievement Test
- Standardized Tests
- Characteristics of a Good Test: Validity, Reliability, Objectivity, Usability

IV. Education Administration and Supervision

- The Concept of Administration
- Educational Planning and Organization in Pakistan
- Approaches to Educational Administration: Democratic; Authoritarian; Laissez-faire
- Function of Administration
- Educational Supervision
- Agencies and Organizations promoting Education in Pakistan

Paper-II: 100 Marks (MCQ) (For English)

I. Essays:

- Bertrand Russell (The Conquest of Happiness)
- George Orwell (Politics and the English Language; The Prevention of Literature)

II. Short Stories:

- Somerset Maugham (The Lotus-eater)
- G.K. Chesterton (A Somewhat Improbable Story)
- O'Henry (The Gift of the Magi)

III. Poetry:

- William Wordsworth (Resolution Independence; Tintern Abbey)
- John Keats (Ode to a Nightingale; Ode to Autumn)
- Lord Alfred Tennyson (Ulysses; The Lady of Shalott)
- Yeats (A Dialogue of Self and Soul; The Second Coming)
- Eliot (The Wasteland; Love Song of J. Alfred Prufrock)
- Philip Larkin (Maturity; Continuing to Live; The Trees)
- Wallace Stevens (A postcard from the volcano; Continual conversation with a silent man; Dry loaf) **OR** Walt Whitman (As I ponder'd in silence; Are you the new person drawn toward me?; This moment yearning and thoughtful)

IV. Drama:

- Shakespeare (Hamlet; King Lear, As you like it and Twelfth Night)
- William Congreve (The Way of the World)
- Shaw (Pygmalion; Heartbreak House)
- Harold Pinter (The Caretaker)
- Samuel Beckett (Waiting for Godot)
- Eugene O'Neill (*Long Day's Journey into Night*)

V. Novels:

- Thomas Hardy (Far from the Madding Crowd)
- D.H. Lawrence (Sons and Lovers)
- George Orwell (Nineteen Eighty-four)
- Iris Murdoch (Under the Net)
- Nathaniel Hawthorne (*The Scarlet Letter*) or William Faulkner (*The Sound and the Fury*)

VI. Literacy Theory & Criticism

- Structuralism
- Marxism
- Deconstructionism

- Psychoanalytic criticism
- Feminist criticism
- Postcolonial Criticism

Paper-II: 100 Marks (MCQ) (For Geography)

I. Geographical Information System:

Definitions, key components, functional subsystem, Raster data model, vector data model, attribute data model, Data acquisition techniques, data sources, data capturing techniques and procedures, data transformation, visualization of spatial data, layers and projections and datums, GIS Applications

II. Map design:

Symbols to portray points, lines, polygons and volumes, graphic variables, visual hierarchy, Data classification graphic approach, mathematical approach.

III. Spatial analysis:

Neighbourhood functions, network, and overlay analysis, buffering, spatial data quality: components of data quality, micro level components, macro level components, usage components, sources of errors, accuracy and resolution and uncertainty.

IV. Remote Sensing

History and Development, Concepts and Foundation of Remote Sensing, Electromagnetic spectrum, Types of Remote Sensing Systems, Types of Satellites, Ground Receiving Stations (Reception of Data), Applications (Hydrology, Geology, Climatology, Environmental etc.), Remote Sensing in Pakistan: Potential and Prospects

V. Land Surveying

- Instrumental survey and records
- Surveying using the following instruments:
 - Chain survey
 - Plane Table
 - Prismatic Compass
 - Determination of heights and slopes with Abney Level
 - Contouring by Indian Clinometer
 - Use of Dumpy level and Theodolite
 - Total station
 - Global Positioning System (GPS)

Paper-II: 100 Marks (MCQ) (For Sociology)

I. Social Interaction: Caste and classes, Forms of social classes, Feudal system in Pakistan, Social Mobility-nature of social mobility and its determinants in Pakistani society, Culture of poverty.

II. Social Control: Mechanisms of social control-formal and informal means of social control, Anomie, Alienation and social Integration-Means of social integration in Pakistani Society.

III. Social and Cultural Change and Social Policy: Processes of Social and Cultural Change-discovery, Inhibitions to social and cultural change in Pakistan, Social planning and directed social and cultural change, Effect of Industrialization, Urbanization, Modernization and Modern Means of Communication on Social Change.

IV. Public Opinion: Formulation of public opinion, concept of opinion leader, characteristics of opinion leadership.

V. Community: The rural community, Traditional Characteristics of rural life, The urban community, Rural – Urban convergence, Urbanism, Future of cities in Pakistan.

VI. Social Institutions: The nature and genesis of institutions, The process of institutionalization, Functions of Social Institutions: Family, Religion, Education, Economy and Politics.

VII. Social Problems in Pakistan: High population growth rate, Rural –urban migration. Issues of technical/vocational training, Deviance and street crime, Unemployment, illiteracy and School dropout, Smuggling, Prostitution, Poverty, Drug Addiction, Child Labour and Abuse, Bonded Labour, Social customs and Traditions affecting Women in Pakistan, Violence Against Women and Domestic Violence, Issues concerning the Elderly in Pakistan.

VIII. Methods of Sociological Research: Scientific Method, Steps in research, Types of Questionnaire Research Design, Surveys, Observation and Case Studies.

Paper-II: 100 Marks (MCQ) (For Urdu)

اردو ادب کا مطالعہ

-1

i. اردو زبان و ادب کی اسلامی شناخت

ii. بیسویں صدی کی ادبی تحریکیں

iii. پاکستانی ادب کی اصلاح: تشكیل و روائت اور ارتقاء

شعری ادب کا تنقیدی مطالعہ

-2

الف - دور قدیم

i. میر (غزل۔ انتخاب میر مولوی عبد الحق)

ii. غالب (دیوان غالب)

iii. حالی (مسدس)

iv. اقبال (طلوع اسلام، خضر راہ، مسجد قربطہ)

ب - دور جدید

i. فیض (غزل۔ دست صبا)

ii. راشد (نظم۔ ایران میں اجنبی)

iii. مجید امجد (نظم۔ شب رقہ)

تئیری ادب کا تنقیدی مطالعہ

-3

الف. غیر افسانوی نثر

i. شبی (سیرت النبی ﷺ، جلد اول)

ii. مولوی عبد الحق (خاکے، چند بہ عصر)

ب - افسانوی نثر

i. منٹو (افسانے، منٹو کے بیس افسانے: مرتب ڈاکٹر انوار احمد، ڈاکٹر اے بی اشرف)

ii. احمد ندیم قاسمی (افسانے، کپاس کے پھول)

iii. مشناق احمد یوسفی (طنز و مزاح، آب گم) -

Paper-II: 100 Marks (MCQ) (For Zoology)

I. Animal Diversity-Chordata

- Fishes: Structural and functional adaptations of fishes.
- Amphibian: Movement onto land and early evolution of terrestrial vertebrates.
- Reptiles: Characteristics of reptiles, adaptations in reptilians.
- Birds: Migration and navigation, adaptations.
- Mammals: Structural and functional adaptations of mammals.

II. Principles of Animal Life

- Protozoa: Reproduction pattern in protozoan, Parasitism in protozoan
- Tissues Types: epithelial, connective, muscle and nervous tissue; organs and organ systems.
- Ecological Concepts: Interactions, Concepts and components of ecosystem, Food chain, Food web, Biogeochemical cycles, Forest, Biomes, Wildlife conservation and management, Environmental pollution, Greenhouse effect, Acid rain, Global warming.

III. Animal Form and Function

- Protection, Support and Movement: Integumentary system of invertebrates and vertebrates; Animal muscles: the muscular system of invertebrates and vertebrates.
- Digestion and Nutrition: Feeding mechanism, Digestion, Organization and regional function of alimentary canals, Regulation of food intake, Nutritional requirements
- Internal Fluids and Respiration: Internal fluid environment, Composition of blood, Circulation and respiration mechanisms
- Nervous Coordination: Nervous system and Sense: Functional units of nervous systems, Synapses junctions between nerves.
- Chemical Coordination: Endocrine System; Vertebrate endocrine glands and types of hormones, Mechanism of hormones action,
- Animal Behavior: Learning, Habituation, Insight learning, latent learning, classical learning: Control of Behavior; social behavior

Case No.	F.4-165/2025-R
Particulars of post	System Analyst / Designer (BS-18) , GHQ, Ministry of Defence.
Minimum Qualification & Experience:	<p>i. Second Class or Grade "C" Master's degree in Computer Science/ Information Technology or equivalent from a University recognized by HEC.</p> <p style="text-align: center;">OR</p> <p>Second Class or Grade 'C' Bachelor's degree in Computer Science/ BIT (4 years duration) or equivalent from a University recognized by HEC.</p> <p>ii. Training in System Analysis.</p> <p>iii. Five (5) years post qualification experience of Programming/ Systems Analysis / Software Development / Web Based Software.</p>

Max Marks: 200Qualifying Standard: 40%

(Note: Negative marking of 0.25 per wrong answer)

Paper-I: 100 Marks (MCQ)

I. English (50 Marks)

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring
- Sentence Correction
- Grouping of Words
- Pairs of Words
- Idiomatic Phrases
- Synonyms/ Antonyms
- Translation

II. General Intelligence/Ability (50 Marks)

- Basic Arithmetic/Quantitative Ability
 - Algebra
 - Ratios
 - Percentages
 - Arithmetic Means
- Logical Reasoning and Analytical Ability
- Current Affairs.
 - Developments at National and International Levels in last 2 years
- Pakistan Affairs
 - Basic Level knowledge
- Basic IT (Hardware and Software)

Paper-II (Professional): 100 Marks (MCQ)

I. Computer Architecture

Microprocessor Bus Structure (Address/Data/Control), Registers and Flags, Storage Hierarchy (Main/Virtual/ Cache/ Secondary memory), Peripheral communication, CPU, ALU, Principles of Instruction Set Design, Multiprocessors & Thread Level Parallelism.

II. Object Oriented Design/Programming

Introduction to object oriented design, history and advantages of object oriented design, introduction to object oriented programming concepts, classes, objects, data

encapsulation, constructors, destructors, access modifiers, const vs non-const functions, static data members & functions, function overloading, operator overloading, identification of classes and their relationships, composition, aggregation, inheritance, multiple inheritance, polymorphism, abstract classes and interfaces, generic programming concepts, function & class templates, standard template library, object streams, data and object serialization using object streams, exception handling.

III. Software Engineering

Nature of Software, Overview of Software Engineering, Professional software development, Software engineering practice, Software process structure, Software process models, Agile software Development, Agile process models, Agile development techniques, Requirements engineering process, Functional and non-functional requirements, Context models, Interaction models, Structural models, behavioral models, model driven engineering, Architectural design, Design and implementation, UML diagrams, Design patterns, Software testing and quality assurance, Software evolution, Project management and project planning, configuration management, Software Process improvement

IV. Data Structure and Algorithms

Stack and Queue, Sequential Search, Binary Search, Bubble sort, Merge sort, Quick sort, Insertion sort, Selection Sort, Linked Lists

V. Database Management Systems

Database design, functional dependencies and normal forms, concurrency control and recovery techniques, Database security and authorization

VI. Computer Communications and Networks

Asynchronous and Synchronous transmission, LAN/WAN/MAN, Network layers, Transport layer protocols TCP/IP, UDP,

VII. Operating Systems

Process and CPU management, Multithreading, Deadlocks, Memory management and virtual memory, External Fragmentation, Paging and Demand Paging, File management systems, Scheduling and dispatch.

Case No.	F.4-168/2025-R
Particulars of post	Vice Principal (Female) (BS-18) , Islamabad Model Schools (Ex-F.G Schools), Federal Directorate of Education, Ministry of Federal Education and Professional Training.
Minimum Qualification & Experience:	<ul style="list-style-type: none"> i. Second Class or Grade 'C' Master's degree / Bachelor's degree (4 years duration) with Second Class or Grade 'C' M.Ed / B.Ed. (Hons) or equivalent qualification from a University recognized by HEC. Requirement of M.Ed / B.Ed. (Hons) is exempted for those having Master's / M. Phil / Ph. D degree in education. ii. Five (5) years post qualification experience in Teaching and Administration in a recognized Educational Institution.

Max Marks: 200Qualifying Standard: 50%

(Note: Negative marking of 0.25 per wrong answer)

Paper-I: 100 Marks (MCQ)**I. English (50 Marks)**

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring
- Sentence Correction
- Grouping of Words
- Pairs of Words
- Idiomatic Phrases
- Synonyms/ Antonyms
- Translation

II. Teaching Methodology (50 Marks)

- Teaching Methodology
- Elements of Curriculum.
- Curriculum Development Process:
- Classroom Communication
- Classroom Assessment and Evaluation
- Types of Test and characteristics of a Good Test
- Research Instruments

Paper-II (Professional): 100 Marks (MCQ)**I. Foundation of Education**

- Educational Process
- Role of education in Nation Building, National cohesion and integration, Character building, Human resource development, World peace and prosperity
- Philosophical Foundations of Education
- Psychological Foundation of Education
- Sociological Foundations of Education
- Islamic Concept Education
- Process of Development of Test books and National Textbook Policy

II. Process of Teaching and Teaching Strategies

- Process of Classroom Communication
- Factors affecting Classroom Communication
- Barriers to Classroom Communications
- Use of Instructional Materials and Media
- Information and Communication Technologies (ICTs)

III. Education Assessment and Evaluation

- Concept of Classroom Assessment and Evaluation
- Distinction between Assessment, Evaluation and Measurement
- Approaches to Evaluation: Formative Evaluation; Summative Evaluation
- Types of Test: Essay Type; Objective Type: Multiple Choice, True-False Items, Matching Type; Principles of Construction of these Test
- Achievement Test
- Standardized Tests
- Characteristics of a Good Test: Validity, Reliability, Objectivity, Usability

IV. Education Administration and Supervision

- The Concept of Administration
- Educational Planning and Organization in Pakistan
- Approaches to Educational Administration: Democratic; Authoritarian; Laissez-faire
- Function of Administration
- Educational Supervision
- Agencies and Organizations promoting Education in Pakistan

V. Human Resource and Financial Management

Definition, Significance and Scope of Human Resource Management; Organization—Types of Organization, Theory of Organization, Principles of Organization, Organization of the Federal and Provincial Governments, Public Sector Enterprises; Approaches to Human Resource Management. Personnel Administration—Tools of Personnel Management: Selection, Training, Promotion, Compensation, Discipline; Communication, Communication Channels and Principles of Public Relations; Human Behaviour and Organizations Administration.—Elements of Financial Administration,

VI. Information Technology and MS Office

Fundamentals of Computer: CPU, Memory Devices, Types of Computers, Characteristics of Computer and related material; Application Software: Microsoft Word, Microsoft Power Point, Microsoft Excel; Search Engines, Web Design, Email, Internet Surfing, Social Networking (Facebook, Twitter, etc); General Introduction to Virus and Antivirus utilities; Programming Languages.

Case No.	F.4-169/2025-R
Particulars of post	Director General (BS-21) , Federal Directorate of Education, Ministry of Federal Education and Professional Training.
Minimum Qualification & Experience:	<ul style="list-style-type: none"> i. Ph.D. or M. Phil. / MS (18 years Education) or Second Class or Grade 'C' Master's / Bachelor's (16-years Education) degree or equivalent qualification from a University recognized by HEC. ii. Eighteen (18) years' post qualification experience in case of Ph.D. OR twenty (20) years' post qualification experience in case of MS / M.Phil or twenty two (22) years post qualification experience in case of aforesaid Bachelor's (BS) / Master's in BS-17 and / or above or equivalent from a Public or Private Sector Organization. iii. Out of total experience mentioned in above in (ii) minimum five (5) years must be in BS-19 or minimum three (3) years in BS-20 or equivalent as a head of Public or Private Sector Organization.

Max Marks: 200Qualifying Standard: 50%

(Note: Negative marking of 0.25/ wrong answer)

Paper-I: 100 Marks (MCQ)**I. English (20 Marks)**

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring

II. General Intelligence/Ability (40 Marks)

- Quantitative Ability
- Logical Reasoning & Analytical Ability
- Developments at National and International Levels in last 2 years
- Basic IT (Hardware and Software)

III. Laws of Pakistan (40 Marks)

- Rules of Business, 1973
- Civil Servants Act & Rules made thereunder,
- Public Finance Rules
- PPRA Rules, 2004

Paper-II: 100 Marks (MCQ) Professional**I. Management (50 Marks)**

- Principles of Management
 - Functions of Management and Roles of Manager
 - Types of Plans and Planning Process
 - Types of organizations
 - Leadership Styles and Theories
 - Types of Control and Control Process
 - Basic Concepts of Quality Management (Total Quality management, ISO 9001 Standard)

- Human Resource Management
 - Definition, Significance and Scope of Human Resource Management;
 - Recruitment and Selection
 - Training and Development
 - Theories of Motivation
 - Performance Management
- Financial Management
 - Principles of Budgeting, Auditing and Accounting.

II. Teaching Methodology (50 Marks)

- Teaching Methodology
- Elements of Curriculum.
- Curriculum Development Process:
- Classroom Communication
- Classroom Assessment and Evaluation
- Types of Test and characteristics of a Good Test
- Research Instruments

Case No.	F.4-171/2025-R
Particulars of post	Deputy Armament Supply Officer (BS-18) , Pakistan Navy, Ministry of Defence.
Minimum Qualification & Experience:	i. Second Class or Grade 'C' Master's degree in Chemistry / Physics. ii. Five (5) years post qualification experience in Explosives / Dangerous Cargoes/ Petroleum / Oils / Lubricants.

Max Marks: 200Qualifying Standard: 40%

(Note: Negative marking of 0.25 per wrong answer)

Paper-I: 100 Marks (MCQ)**I. English (50 Marks)**

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring
- Sentence Correction
- Grouping of Words
- Pairs of Words
- Idiomatic Phrases
- Synonyms/ Antonyms
- Translation

II. General Intelligence/Ability 50%

- Basic Arithmetic/Quantitative Ability
 - Algebra
 - Ratios
 - Percentages
 - Arithmetic Means
- Logical Reasoning and Analytical Ability
- Current Affairs.
 - Developments at National and International Levels in last 2 years
- Pakistan Affairs
 - Basic Level knowledge
- Basic IT (Hardware and Software)

Paper-II: 100 Marks (MCQ) Professional**Part-I: (Chemistry) 50 Marks**

- I. Atomic structure.—Quantum theory, Schrodinger equation, Particle in box, hydrogen atom. Hydrogen moleculeion, hydrogen molecule. Theories of hydrogen and metallic bonding.
- II. Electrochemistry.—Ionic equilibria, theory of strong electrolytes; ebye-Huckel theory of activity coefficients, galvanic cells, membrane equilibria and fuel cells. Theories of Acids and Bases, glass electrode, measurement of pH. Electrolysis, overvoltage and corrosion.
- III. Thermodynamics.—First law of thermodynamics, internal energy, enthalpy functions. Thermochemistry, Entropy and second law of Thermodynamics, Free energy and chemical equilibrium.

- IV. Chemistry of Following Elements.—Oxygen, Carbon, Chlorine, Silicon, Nitrogen, Phosphorus.
- V. Inorganic Chemical Industries.—Sulphuric Acid, Fixation of Nitrogen, Chemical Fertilizers, Semi-conductivity devices. Cement, Glass and Ceramics.
- VI. Industrial Organic Chemistry.—Organic Polymers. Fermentation processes including preparation of Anti-Biotics. Petro-Chemical Industry.

Part-II: (Physics) 50 Marks

I. Mechanics

- Vectors—Dots, Cross and triple products, Gradient, divergence and applications.
- Newtonian laws of motion; calculus based approach to kinematics, forces and dynamics, conservation law of energy; conservation of linear and angular momentum; Dynamics of rigid body; spin and precession; gyroscope; Gravitation; planetary motion and satellites; Kepler's laws; centripetal forces
- Special theory of relativity. Michelson—Morley experiment and Einstein's postulates; Lorentz transformation; time dilation and length contraction; equivalence of mass and energy.

II. Fluid Mechanics

- Surface tension; Viscosity; Elasticity; fluid motion and Bernoulli's theorem.

III. Heat and Thermodynamics

- Perfect gas and Vander Waals equation; Three Laws of Thermodynamics, internal energy, temperature, entropy. Thermal properties of Simple system production and measurement of low temperatures; kinetic theory of gases; Maxwellian distribution of molecular velocities; Brownian motion; Transport phenomena. Classical Maxwell-Boltzmann Statistics and its application; Quantum Bose—Einstein and Fermi—Dirac Statistics.

IV. Electricity and Magnetism

- Electric field due to point charges, Gauss' law Electric potential and Poisson and Laplace's equation Dielectric medium and Polarization; Capacitance; Moving charges and resulting magnetic field; Ampere's law; Vector potential; Magnetic properties of matter; Transient current; Faraday's law of electromagnetic induction; Alternating current and LRO circuit. Maxwell's equations; Poynting theorem and Poynting Vector. Maxwell's equations in integral and differential form.

V. Solid State Physics

- Crystal lattice and structure, Bravais lattice, free electron model, Band theory and electron in a periodic potential, Fermi energy and density of states, n and p type semiconductors, physics of the transistor and MOSFET, dielectric properties, magnetic properties and origin of magnetism.

VI. Nuclear Physics

- Structure of Nuclei; Radioactivity. Methods of detection, Mass Spectrometer. Accelerators. Phenomenon of fission; reactor and nuclear power, nuclear fusion and its application, Elementary particles and their properties.

Case No.	F.4-180/2025-R
Particulars of post	Deputy Director (Bio-Chemistry) (BS-18) , Marine Fisheries Department, Ministry of Maritime Affairs.
Minimum Qualification & Experience:	<ul style="list-style-type: none"> i. Second Class or Grade 'C' Master's or Bachelor's (4 years duration) in Bio-Chemistry or equivalent qualification from a University recognized by the HEC. ii. Five (5) years post qualification experience in the field of Fisheries from a Govt. / Semi-Govt. / Autonomous / Private Sector Organization of repute.

Max Marks: 200Qualifying Standard: 40%

(Note: Negative marking of 0.25 per wrong answer)

Paper-I: 100 Marks (MCQ)**I. English (50 Marks)**

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring
- Sentence Correction
- Grouping of Words
- Pairs of Words
- Idiomatic Phrases
- Synonyms/ Antonyms
- Translation

II. General Intelligence/Ability (50 Marks)

- Basic Arithmetic/Quantitative Ability
 - Algebra
 - Ratios
 - Percentages
 - Arithmetic Means
- Logical Reasoning and Analytical Ability
- Current Affairs.
 - Developments at National and International Levels in last 2 years
- Pakistan Affairs
 - Basic Level knowledge
- Basic IT (Hardware and Software)

Paper-II: 100 Marks (MCQ) Professional**I. Introductory Biochemistry**

Importance and the scope of biochemistry, Prebiotic molecular evolution and rise of living systems; Structure, physical properties and importance of water; pH and buffer, Unique properties of carbon and other elements found in biological molecules; Biologically important organic compounds, Composition, properties and functions of proteins, carbohydrates, lipids and nucleic acids

II. Biochemical Techniques

Introduction and principles of centrifugation and ultracentrifugation methods and their applications, Ultrafiltration, dialysis and lyophilization, Chromatography; principles, methods and applications of paper and thin layer chromatography, Gas chromatography (GC), GC-MS/LC-MS, Affinity chromatography, Introduction to spectroscopy and spectrophotometry, Amino acids analyzer.

III. Clinical Biochemistry

Diagnostically important Plasma Enzymes & Proteins, Immunoglobulin deficiencies, Disorders of carbohydrate metabolisms and Clinical correlations: Diabetes mellitus, Fructose intolerance, Lactic acidosis, Hypoglycemia, Galactosaemia, Metabolic Bone Diseases, Liver Disease, Hemoglobinopathies, Cancer diagnosis, tumor markers, ectopic hormone production, consequences of cancer treatment.

IV. Nutritional Biochemistry

Nutrients structure& functional characteristics, Role of nutrients in metabolism, Healthy diet: types and constituents, Recommended dietary allowance (RDA), adequate intake (AI), tolerable upper intake level, Estimation of dietary intake (FFQ, 24 hour dietary recall, questionnaires etc), Nutritional status biomarkers, Basic metabolic rate (BMR), body mass index calculations (BMI), Respiratory quotient calculations, Nutritional disorders.

V. Industrial Biochemistry

Introduction to industrial biochemistry, Introduction to fermentation and its applications, Selection of industrially important organism for food, pharmaceutical, fertilizer, textile, tanneries, paper and other related industries, Brief introduction to microbial metabolites, Production of enzymes, antibiotics, acetic acid and ethanol by microbial fermentation, Plant extraction and purification of extracted components, Manufacturing of glucose from rice, corn, potato and wheat for their industrial applications, Quality assurance and value addition

Case No.	F.4-181/2025-R
Particulars of post	Deputy Director (Microbiology) (BS-18) , Marine Fisheries Department, Ministry of Maritime Affairs.
Minimum Qualification & Experience:	<ul style="list-style-type: none"> i. Second Class or Grade 'C' Master's or Bachelor's (4 years duration) in Microbiology or equivalent qualification from a University recognized by the HEC. ii. Five (5) years post qualification experience in the field of Fisheries from a Govt. / Semi-Govt. / Autonomous / Private Sector Organization of repute.

Max Marks: 200Qualifying Standard: 40%

(Note: Negative marking of 0.25 per wrong answer)

Paper-I: 100 Marks (MCQ)**I. English (50 Marks)**

- Comprehension
- Grammar Usage
- Vocabulary
- Sentence Structuring
- Sentence Correction
- Grouping of Words
- Pairs of Words
- Idiomatic Phrases
- Synonyms/ Antonyms
- Translation

II. General Intelligence/Ability (50 Marks)

- Basic Arithmetic/Quantitative Ability
 - Algebra
 - Ratios
 - Percentages
 - Arithmetic Means
- Logical Reasoning and Analytical Ability
- Current Affairs.
 - Developments at National and International Levels in last 2 years
- Pakistan Affairs
 - Basic Level knowledge
- Basic IT (Hardware and Software)

Paper-II: 100 Marks (MCQ) Professional**I. Microbial Anatomy and Physiology**

Detailed organization of microbial cells, Chemical composition and biosynthesis of macromolecules in microbial cells. Genomic organization of prokaryotes, Regulation of gene expression (operon, catabolite repression), Uptake and secretion of molecules, Aerobic and anaerobic respiration and fermentation, Cell metabolism: protein, nucleic acid and fat, Microbial enzymes and metabolites. Classifications, chemistry, mechanism of action and inhibition.

II. Fresh-Water Microbiology

Introduction to fresh-water environment and its microbiology, Stratifications in lakes and ponds, Laws of ecology with particular reference to fresh-water ecosystem: environmental factors (biotic and abiotic) and their influence on the distribution of microorganisms, Enumeration of bacteria: sampling and samplers, processing and actual enumeration procedures, Fresh-water microorganisms: some important groups of fresh-water microorganisms, Study of biogeochemical cycling of C, N, S & P, Advantages and disadvantages of fresh-water microorganisms, Aqua-culture and some common microbiological problems, Some common diseases of fresh-water fauna.

III. Soil Microbiology

Elements of soil formation and conservation, Soil microbial population and methods of study with their advantages and disadvantages, Role of microorganisms in mineral transformations, Biotechnological potentials of soil microorganisms, Importance of the subject in the agricultural development of Pakistan, Problems of salinity and water logging and the methods of land reclamations, Pesticides and their biodegradation, Mycorrhiza.

IV. Immuno-biology

The immune system: organs constituting the immune system, their location in the human body and basic architecture, Immuno-competent cells: their origin, surface markers, population and sub-populations. Immunological characterization and functions, Antibody induction and production: antigen and antibody metabolism. Cells involved in cellular sequence of events. Kinetics of antibody synthesis, Role of T-cells and immunoglobulins in the immune response, Immunologic memory: positive and negative. Phenomenon of natural tolerance, Cellular immune response and its characterization