FEDERAL PUBLIC SERVICE COMMISSION (Curriculum & Research Wing)

Schemes and Syllabi for Screening/Professional Tests as well as Descriptive Examination Relating to Posts Advertised under Consolidated Advertisement No. 05/2022

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
1.	73/2022	Assistant Scientific officer (BS-17), Armed Forces Institute of Pathology, (GHQ Medical Directorate), Ministry of Defence	Biochemistry/Microbiology or equivalent qualification from a University recognized by the Higher Education Commission. ii. Two (2) years post qualification experience of Research/	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test =80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II Nature, Properties and States of Matter, Gases, Liquids & Solids, Organic Chemistry In-Organic Chemistry General Immunology Cell Biology Clinical Bacteriology General Virology Research Methodology
2.	75/2022	Network System Engineer (BS-17), Bureau of Emigration and Overseas Employment, M/O Overseas Pakistanis & Human Resource Development.	Second Class or Grade 'C' Master's Degree in Computer Science/ BCS (4 years)/ IT/ Electronics or equivalent from a University recognized by the HEC. OR B.Sc. in Computer Engineering (Software) 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 Data Communication and Networking Server, Router, Firewalls and Switches Management LAN/WAN/MAN Transport layer protocols TCP/IP Multiplexing, Routing, Bridging Web Application, Network & Security issues Operating Systems (Windows, Linux, Unix) Database Management System(MySql/MariaDB/MonoDB, Backups) System and Application Software (Client/Server)

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
3.	77/2022	Network Administrator (BS-17), Cabinet Secretariat (Aviation Division).	Second Class or Grade 'C' Master's/ Bachelor's (4 year duration) degree in Computer Science/ Information Technology/ Software Engineering or equivalent qualification form a University recognized by the HEC. OR Second Class or Grade 'C' Bachelor's degree in Computer Engineering/ Computer System Engineering or equivalent qualification from a University recognized by the 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 Data Communication and Networking Server, Router, Firewalls and Switches Management LAN/WAN/MAN Transport layer protocols TCP/IP Multiplexing, Routing, Bridging Web Application, Network & Security issues Operating Systems (Windows, Linux, Unix) Database Management System(MySql/MariaDB/MonoDB, Backups) System and Application Software (Client/Server)
4.	78/2022	Research Officer (BS-17), Education Section, Ministry of Planning, Development and Special Initiatives.	Second Class or Grade 'C' Master's degree or equivalent qualifications in Education OR Second Class or Grade 'C' Master's degree or equivalent qualifications in any discipline with Bachelor's degree or equivalent qualifications in Education.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 Marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II Perspectives of Education in Pakistan School Administration & Supervision Planning & Management in Education Educational Psychology Curriculum Development & Assessment Teaching Methodology Classroom Management Educational Measurement & Evaluation Research Techniques in Education Educational System in Pakistan Educational Guidance & Counselling

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
5.	79/2022	Research Officer (BS-17), Water Resources Section,	Second Class or Grade 'C' Bachelor's Degree or equivalent	Objective Type Test (MCQ)	Part-I
		Ministry of Planning, Development and Reform.	qualifications in Civil Engineering or Agricultural Engineering.	Part-I	Vocabulary, Grammar Usage, Sentence Structuring
		Development and iteroim.	or Agricultural Engineering.	English = 20 marks	Part-II (For Civil Engineer)
				Part-II	Soil Mechanics & Foundation Engineering
				Professional Test=80 Marks	Hydraulic & HydrologyConstruction Management
					Building Material & Building Construction
					Structural Design ApplicationsEngineering Materials
					Concrete Technology & R.C.C Structure Design
					Reinforced Concrete
					Sewage Treatment
					Water Resources and Water Supply Design
					Research and Analysis
					Report Writing
					Public Procurement Rules, 2004
					Part-II (For Agricultural Engineer)
					Soil Science
					Basic Agriculture
					Farm Structures & Materials
					Soil & Water Conservation Engineering
					Irrigation Engineering
					Environmental Engineering
					Farm Machinery & Earth Moving Equipment
					GIS & Remote Sensing
					Agricultural Processing Engineering
					Research and Analysis
					Report Writing
					Public Procurement Rules, 2004

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
S. No 6.	Case No. F.4- 80/2022	Particulars of Post(s) Research Officer (BS-17), Transport & Communication Section, Ministry of Planning, Development and Special Initiatives.	Qualifications/Experience for the Posts i. Bachelor's degree or equivalent qualifications in Civil Engineering or Electrical Engineering. ii. PEC registration.	Objective Type Test (MCQ)	Part-I Vocabulary, Grammar usage, Sentence Structuring Part-II (For Civil Engineers) Soil Mechanics & Foundation Engineering Hydraulic & Hydrology Surveying & Levelling Construction Management Building Material & Building Construction Structural Design Applications Engineering Materials Concrete Technology & R.C.C Structure Design Reinforced Concrete Sewage Treatment Water Resources and Water Supply Design Steel Structure, Design and Analysis Environmental Engineering Principles of Planning
					 Research and Analysis Report Writing Presentation Skills Public Procurement (PPRA) Rules, 2004 Part-II (For Electrical Engineers) Power & Digital Electronics, Electronic Devices and Structure, Calibration of Test Measuring Diagnostic Equipment, Electric Circuits, Semiconductor Devices, Electronic/ Electrical Instrumentation, Oscillators & Circuit Theory, Rules and Instructions of Repairs of the Multilayer Printed Circuit Boards, Use of Specialized Diagnostic Test Equipment, Handling of Programmable ICs, PCBs Designing Software, Principles of Planning' Research and Analysis Report Writing Presentation Skills Public Procurement (PPRA) Rules, 2004

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
7.	81/2022	Research Officer (BS-17), Industries & Commerce Section, Ministry of Planning, Development and Reform.	Second Class or Grade 'C' Master's Degree or equivalent qualifications in any of the following subjects: Economics (with Industrial Economics), Agricultural Economics, Physics, Chemistry, Mathematics, Mineral Science, Geology, Business Administration, Commerce and Accounting. OR Second Class or Grade 'C' Bachelor's Degree or equivalent qualifications in Production/ Mechanical/ Chemical/ Textile/ Electrical/ Mining Engineering.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring, Part-II Project Management and Evaluation tools Project Evaluation, Research Methodologies, Economic Development of Pakistan with special focus on Industrial and Agricultural Sectors. Organization of Economic Research, Collection and Compilation of Data, Methods of Data Analysis,
8.	83/2022	Deputy Assistant Director (Hort) (BS-16), PAK PWD, Ministry of Housing and Works.	Bachelor's degree in Agriculture.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 Marks	Part-I Grammar Usage, Sentence Structuring Part-II Modern concept of Horticultural industry, Plant propagation, Major management and breeding problems in fruits and vegetables, Principles of Fruit Production & Vegetable Production, Ornamental Horticulture, Medicinal and Aromatic Plant Production of Fruits & Vegetables, Landscape Plants, Vegetable and Flower Seed Production , Propagation and Nursery Management , Flower Production, Harvest and Handling of Horticultural Crops

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
9.	84/2022	Assistant Director (BS-17) Federal Government Organization	Second Class or Grade 'C' Master's Degree or equivalent.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II General Intelligence Test = 80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II General Knowledge, Everyday Science Basic Arithmetic Algebra Ratios Percentages Arithmetic Means Current Affairs. Developments at National and International Levels in the last 2 years Pakistan Affairs & Islamic Studies Basic Level knowledge Note: (Equal weightage for each topic at Part-II)
10.	85/2022	Instructor (English) (BS-16) Staff Welfare Organization, Establishment Division.	 i. Bachelor's degree from a recognized University. ii. Speed of 80 w.pm. in Shorthand (English) and 40 w.p.m in typing at 90% accuracy of actual test. iii. Two (2) years post qualification practical experience as English Stenographer. 	i Microsoft Word (Typi ii Microsoft Excel (Typ	um Speed of 80 W.P.M 35 Marks
11.	86/2022	Lecturer (Female) (BS-17) A. Mathematics B. Persian Islamabad Model Colleges, Federal Directorate of Education, Ministry of Federal Education & 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: In Language Subject (i.e Persian), English part for 20 marks will not be included. There will be 70% subject Test and 30% Professional Test.	A. For Mathematics Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II (Master's Level) Calculus/Differentiation, Integration, Discrete Structures/Discrete Mathematics, Communication Skills for Mathematicians, Computing Tools for Mathematicians, Mathematical Statistics, Real Analysis, Mathematical Spaces (Sets, Vector Spaces, Metric Spaces, Topological Spaces, Tensors) Differential Equations. Part-III Teaching Techniques and Methodology Classroom Management and Discipline Testing and Evaluation

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					B. For Persian
					Part-I (Master's Level) (70 Marks)
					 Classical Persian Prose and Poetry
					 Modern Persian Literature,
					 History of Persian Language and Literature,
					 Study of Iranian History and Culture,
					 Iqbal's Persian Poetry and Thoughts.
					Part-II (30 Marks)
					 Teaching Techniques and Methodology,
					 Classroom Management and Discipline,
					 Testing and Evaluation,

Schemes and Syllabi for Written Examination (Descriptive) for All Posts in BS-18 & BS-19 included in Consolidated Advertisement No. 05/2022

PAPER-I: ENGLISH

Max Marks: 100 Time Allowed: 3 Hours

(i) <u>English Essay-50 Marks:</u> Candidates will be required to write an Essay in English comprising 1500 words from a set of six given topics. Candidates are expected to reflect comprehensive and research based knowledge on a selected topic. Candidate's articulation, expression and technical approach to the style of English Essay writing will be examined.

(ii) English (Composition and Précis)-50 Marks:

The examination will test the candidate's abilities to handle Précis Writing, Reading Comprehension, Sentence Structuring, Translation, Grammar and Vocabulary, etc.

Précis Writing (10 marks): A selected passage with an orientation of generic understanding and enough flexibility for compression shall be given for précising and suggesting an appropriate title.

Reading Comprehension (10 marks): A selected passage that is rich in substance but not very technical or discipline-specific shall be given, followed by five questions, each carrying 2 marks.

Grammar and Vocabulary (10 marks): Correct usage of Tense, Articles, Prepositions, Conjunctions, Punctuation, Phrasal Verbs, Synonyms and Antonyms etc. **Sentence Correction (5 marks):** Ten sentences shall be given each having a clear structural flaw in terms of grammar or punctuation. The candidates shall be asked to rewrite them with really needed correction only, without marking unnecessary alterations. No two or more sentences should have exactly the same problem, and 2-3 sentences shall be based on correction of punctuation marks.

Grouping of Words (5 marks): A random list of ten words of moderate standard (neither very easy nor utterly unfamiliar) shall be given, to be grouped by the candidates in pairs of those having similar or opposite meaning, as may be clearly directed in the question.

Pairs of Words (5 marks): Five pairs shall be given of seemingly similar words with different meanings, generally confused in communication, for bringing out the difference in meaning of any five of them by first explaining them in parenthesis and then using them in sentences.

Translation (5 marks): Ten short Urdu sentences involving structural composition, significant terms and figurative/idiomatic expressions shall be given, to be accurately translated in English.

Sr. No.	Title	Author
1.	English Grammar in Use	Raymond Murphy (Cambridge University Press)
2.	Practical English Usage	M. Swan (Oxford University Press)
3.	The Little, Brown Handbook	H. Ramsey Flower & Jane Aaron (The Little,
		Brown & Co; Harper Collins)
4.	A University English Grammar	R. Quirk & S. Greenbaum (ELBS; Longmans)
5.	Write Better, Speak Better	Readers Digest Association
6.	Modern English in Action	Henry Christ (D.C. Heath & Co.)
7.	Exploring the World of English	Syed Saadat Ali Shah

Max Marks: 100 Time Allowed: 3 Hours

Case No.	F.4-72/2022-R		
Particulars of	Social Mobilizer (BS-18), Office of Chief Engineering Adviser/ Chairman		
post	Federal Flood Commission, Ministry of Water Resources.		
Minimum	i. Second Class or Grade 'C' Master's degree in Sociology /Social Work		
Qualification &	from a recognized University.		
Experience:	ii. Five (5) years post qualification experience in the field of community		
	mobilization in the rural areas.		

Part-I: 25 Marks (MCQ) 25 MCQ Questions on Part-II.

Part-II: (Qualification Based) (Descriptive) 75 Marks

- I. Society: Meaning and characteristics. Community; meaning and characteristics. Individual and society. Relationship between individual and society. Two main theories regarding the relationship of man and society (i) the social contact theory and (ii) the organismic theory. Social and cultural evolution of society.
- II. 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.
- **III. Community:** The rural community, Traditional Characteristics of rural life, The urban community, Rural Urban convergence, Urbanism, Future of cities in Pakistan.
- **IV. Social Institutions:** The nature and genesis of institutions, The process of institutionalization, Functions of Social Institutions: Family, Religion, Education, Economy and Politics.
- V. Sociological Theory: Three sociological perspectives: Structural Functionalism, Symbolic interactions and Conflict. Theorists: Ibn-i-Khaldun, Spencer, August Comte, Emile Dukheim, Max Weber, Karl Marx, Parson.
- VI. Methods of Sociological Research: Scientific Method, Steps in research, Types of Questionnaire Research Design, Surveys, Observation and Case Studies.
- VII. Social Problems in Pakistan and their nexus of various forms of social empowerment with economics empowerment/uplift: 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. Successful efforts of social mobilization in Pakistan and around the world and currently prevalent best practices, with emphasis on disaster management
- **IX.** Human Growth and Personality Development: Meaning and significance of human growth, Basic assumptions of human behaviour, Approaches to the study of human development, Principles of human development, Factors influence human growth/development, Phases of human development Levels of functioning of human

- mind and behaviour perspectives, Components of human personality, Theories of personality development, Concepts of abnormal behaviour, Role of Nature & Nurture in Personality Development
- X. Use of Information Technology for social mobilization, particularly for disaster management

S.No.	Title	Author
1.	Sociology : A down to earth approach	James M. Henslin
2.	Methods of Social Research	Baily
3.	Master of Sociological Thought	Lewis A.Coser
4.	Feudal System in Pakistan	Nawab Haider Naqvi
5.	The Sociology of Rural Life	Lynn Smith, T.
6.	Sociology-Social Structure and Social Conflict	Kerbo, Harold R. (1989).
7.	An Introduction to the History of Sociology	Barnes, H.E. (Ed.) (1966)
8.	Pakistani Society	Akbar Ahmad, S.

Max Marks: 100 Time Allowed: 3 Hours

Case No.	F.4-74/2022 -R
Particulars of post	Resettlement Officer (BS-18), AFIRM, Ministry of Defence.
Minimum	i. Master in Social Work from a University recognized by HEC.
Qualification &	ii. Five (5) years post qualification experience in the field of
Experience:	Resettlement or Vocational Trainings in any Government
	Organization.

Part-I: 25 Marks (MCQ)

25 MCQ Questions on Part-II.

Part-II: (Qualification Based) (Descriptive) 75 Marks

- **I. Society**: Meaning and characteristics. Community; meaning and characteristics. Individual and society. Relationship between individual and society. Two main theories regarding the relationship of man and society (i) the social contact theory and (ii) the organismic theory. Social and cultural evolution of society.
- II. 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.
- **III. Community:** The rural community, Traditional Characteristics of rural life, The urban community, Rural Urban convergence, Urbanism, Future of cities in Pakistan.
- **IV. Social Institutions:** The nature and genesis of institutions, The process of institutionalization, Functions of Social Institutions: Family, Religion, Education, Economy and Politics.
- V. Sociological Theory: Three sociological perspectives: Structural Functionalism, Symbolic interactions and Conflict. Theorists: Ibn-i-Khaldun, Spencer, August Comte, Emile Dukheim, Max Weber, Karl Marx, Parson.
- VI. Methods of Sociological Research: Scientific Method, Steps in research, Types of Questionnaire Research Design, Surveys, Observation and Case Studies.
- 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 drop out, 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. Human Growth and Personality Development: Meaning and significance of human growth, Basic assumptions of human behaviour, Approaches to the study of human development, Principles of human development, Factors influence human growth/development, Phases of human development Levels of functioning of human mind and behaviour perspectives, Components of human personality, Theories of personality development, Concepts of abnormal behaviour, Role of Nature & Nurture in Personality Development

S.No.	Title	Author
1.	Sociology : A down to earth approach	James M. Henslin
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5.	The Sociology of Rural Life	Lynn Smith, T.
6.	Sociology-Social Structure and Social Conflict	Kerbo, Harold R. (1989).
7.	An Introduction to the History of Sociology	Barnes, H.E. (Ed.) (1966)
8.	Pakistani Society	Akbar Ahmad, S.

Max Marks: 100 Time Allowed: 3 Hours

Case No.	F.4-76/2022-R	
Particulars of post	Editor (BS-18), GHQ, Ministry of Defence	
Minimum Qualification & Experience:	 i) Second Class or Grade 'C' Master's Degree in Journalism/ Urdu/ Mass Communication/ Public Relations ii) Five years post qualification experience in a News Agency or Newspaper of repute. iii) Ability to write and contribute articles in English and Urdu. 	

A: <u>Translation</u> (40 Marks)

- Urdu to English Translation of 2 paragraphs out of 3 literary scripts (20 marks)
- English to Urdu Translation of 2 paragraphs out of 3 literary scripts (20 marks)

B: <u>Editing of Literature</u> (40 Marks)

• Editing of any two Scripts out of three in English (20 marks each)

C: <u>Computer Literacy</u> (20 Marks)

- Microsoft Word (Typing and Formatting) (10 marks)
- Microsoft PowerPoint (Typing, Formatting and Inserting Objects) (10 marks)

Max Marks: 100 Time Allowed: 3 Hours

Case No.	F.4-82/2022-R		
Particulars of post	Assistant Chief (BS-18), Social Welfare Section, Ministry of Planning, Development and Reform.		
Minimum Qualification & Experience:	i. Second Class or Grade 'C' Master's Degree or equivalent qualification in any of the following subjects:- Social Welfare, Social Work, Sociology		
	ii. Three (3) years post qualification experience of work and/or research relating to social welfare or in planning or development in the field of social welfare.		

Part-I: 25 Marks (MCQ)

25 MCQ Questions on Part-II & III.

Part-II: (Research and Planning) (Descriptive) 25 Marks

i. Communication Skills, Technical Writing and Presentation Skills

Paragraph writing, Essay writing, CV and job application, Translation skills, Study skills, Academic skills, Essay writing, Academic writing, Technical Report writing, Progress report writing, Presentation skills

ii. Planning and Management

a) Project Management

Project Management, Processes Integration Management, Project Plan Development, Project Plan Execution and Overall Change Control, PERT, Gantt Chart, CPM

b) Scope Management

Initiation, Scope Planning, Scope Definition, Scope Verification and Scope Change Control.

c) Communications Management

Communications Planning, Information Distribution, Performance Reporting and Administrative Closure.

d) Risk Management

Risk Identification, Risk Quantification, Risk Response Development and Risk Response Control.

e) Statistical Techniques

All statistical techniques related to Planning & Research

Part-II: (Social Welfare) Descriptive 50 Marks

I. General Sociology

Individual, Culture, Society, Social Interaction, Social Control, Social and Cultural Change and Social Policy, Public Opinion, Community, Social Institutions, Social Problems in Pakistan:

II. Sociological Theory:

Three sociological perspectives: Structural Functionalism, Symbolic interactions and Conflict. Theorists: Ibn-i-Khaldun, Spencer, August Comte, Emile Dukheim, Max Weber, Karl Marx, Parson.

III. Methods of Sociological Research:

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

S. No.	Title	Author
1.	Practical English Grammar	A.J. Thomson and A.V. Martinet.
2.	Writing. Intermediate	Marie-Chrisitine Boutin, Suzanne
		Brinand and Francoise Grellet.
3.	Writing. Upper-Intermediate	Rob Nolasco.
4.	Reading. Advanced	Brian Tomlinson and Rod Ellis.
5.	Study Skills	Riachard Yorky
6.	Writing. Advanced	Ron White.
7.	College Writing Skills	John Langan.
8.	Patterns of College Writing	Laurie G. Kirszner and Stephen R.
		Mandell.
9.	The Mercury Reader. A	Janice Neulib; Kathleen Shine Cain;
	Custom Publication.	Stephen Ruffus and Maurice Scharton.
10.	Project Management Body of	Project Management Institute (PMI)
	Knowledge,	standards committee
11.	Software Project Management	S.A. Kelkar, A Concise Study, Prentice
		Hall of India.
12.	Methods of Social Research	Baily
13.	The Sociology of Rural Life	Lynn Smith, T.
14.	Pakistani Society	Akbar Ahmad, S.
15.	Contemporary Sociological Theories	Pitrim Sorokin
16.	Sociological Theory	Ritzer, Georg, (1988).