

FEDERAL PUBLIC SERVICE COMMISSION
(Curriculum & Research Wing)

Scheme and Syllabi for Screening/Professional Tests as well as Descriptive Examination
Relating to Posts Advertised Vide Consolidated Advertisement No. 07/2015

| S. No | Case No. F.4- | Particulars of Post(s) | Qualifications for Posts | Test Specification | Main Topics for MCQ Test |
|-------|---------------|---|---|--|---|
| 1. | 82/2015 | Appraising/Valuation Officer (BS-16), Federal Board of Revenue, Revenue Division. | <p>i. Second Class or Grade 'C' Bachelor's degree from a recognized University with Economics, Commerce, Statistics, Accounting, Computer Science, Law, Pharmacy, Chemistry or Physics as one of the subjects or B.Sc. Engineering in any speciality.</p> <p>ii. Computer literacy up to the level of MS Word, MS Power Point and MS Excel.</p> | <p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II General Intelligence Test = 80 marks</p> | <p>Part-I Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> • Basic Arithmetic. • Current Affairs. • Pakistan Affairs & Islamic Studies • Everyday/General Science <p>Note : (Equal weightage for each topic at Part-II)</p> |
| 2. | 94/2015 | Assistant Private Secretary (BS-16), Military Finance Wing, Finance Division | <p>i. Second class or Grade "C": Bachelor's degree from a University recognized by HEC</p> <p>ii. A minimum speed of 100/50 w.p.m in shorthand/typing respectively</p> <p>iii. Must be computer literate.</p> | <ul style="list-style-type: none"> • Typing Test with minimum Speed of 50 W.P.M • Shorthand Test with minimum Speed of 100 W.P.M • Computer Literacy Test: <ul style="list-style-type: none"> i Microsoft Word (Typing, Formatting) ii Microsoft Excel (Typing, Graph, Calculations) | <p>40 Marks</p> <p>40 Marks</p> <p>10 Marks</p> <p>10 Marks</p> |

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|-------|---------------|--|--|---|--|
| 3. | 95/2015 | Drilling Engineer (BS-17), Geological Survey of Pakistan, Ministry of Petroleum and Natural Resources. | Second Class or Grade 'C' B.E/ B.Sc. degree in Mechanical Engineering or equivalent 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 <ul style="list-style-type: none"> • Drilling and its Scope • Purpose and uses of Drilling • Classification of Drilling • Type of Drilling • Methods used for Purification of Drilling Fluid • Causes of Circulation Fluid losses and its Prevention • Function of Equipments and Accessories used for Drilling • Types of Mud used for Drilling • Types of Drilling Bits and their functions • Drilling Circulation Fluid: Type, Purpose and Properties. |
| 4. | 99/2015 | Junior Civilian Security Officer (BS-16), OS Directorate, GHQ, Ministry of Defence. | Retd. JCO or equivalent of the Armed Forces. OR i) Second Class or Grade 'C' Bachelor's Degree or equivalent qualification from a University recognized by the HEC ii) Two (2) years post qualification experience as Security Supervisor. | 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. • Current Affairs. • Pakistan Affairs & Islamic Studies • Everyday/General Science • Security Measures to maintain law & order Note : (Equal weightage for each topic at Part-II) |

Syllabi for Written Examination (Descriptive) for all posts in BS-18 & BS-19

PAPER-I: ENGLISH (100 MARKS)

- (i) **English Essay-50 Marks:** 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 sentence 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.

SUGGESTED READINGS

| 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 |

PAPER-II: PROFESSIONAL (100 MARKS)
Senior Mining Geologist (BS-18),
Geological Survey of Pakistan, M/O Petroleum and Natural Resources.
 (Case No. 91/2015)

MINIMUM QUALIFICATION: Second Class or Grade 'C' M.Sc. Degree in Geology with specialization in Mining Geology/Economic Geology or equivalent from a University recognized by the HEC .

EXPERIENCE: (i) Five (5) years post qualification research experience in the field of Geology.
 (ii) Must have published three (3) research papers in the fields of Geology.

Geology: 100 Marks

I. Mineral and Energy Resources

Introduction of geological exploration/prospecting. Brief description of hydrocarbons, coal, gemstones, copper, lead, zinc, iron, gold, chromite, manganese, salt, gypsum, bauxite, sulphur, barite, fluorite, clays, phosphorite, building and dimension stones, industrial rocks and minerals, radioactive minerals and rocks with special reference to economic mineral deposits in Pakistan.

Origin, occurrence, and depositional environments of coal; coal Constitution and kinds of coals.Coal rank, grade and calorific value. Coal deposits of Pakistan with reference to Thar Coal. Geothermal energy resources of Pakistan.

II. Mining Geology and Mineral Economics

Terms and definitions of mine workings. Openings through adits, shafts, inclines, vertical cross cuts. Choices of mining methods and modes of extraction. Structural controls in mining: bedding, faults, joints folds, fractures and intrusion. Correlation of data Spatial relationship of seams. Surface and underground, mapping methods. Calculation of grade ad tonnage of ore. Gases in mines, spontaneous combustion. Rock pressure and support, collapse of working faces, pillars, longwall timbering, benches, safety measures. Waste disposal management, impact of mining on land. Water, air and biological resources. Remedies, long term planning and rehabilitation. Estimation of ore reserves/ore resources: Factors affecting mine size grade and distribution of ore body, or reserves, prediction and estimation of cost. Expenditure: Capital cost, equipment cost, infrastructure cost and mine excavation cost, operation cost, power and fuel charges, labour charges, maintenance of plant and equipment, drilling and blasting charges, haulage, ore, grade control, high grade mining priority, Development decisions based on economic evaluation

III. Engineering and Environmental Geology

Rock and soil mechanics and its application in civil engineering; Rock mass characteristics; Geotechnical studies of rocks and soils; Geological factors and strength of rocks; Study of geological factors in relation to the construction of buildings and foundations, roads, highways, tunnels, dams and bridges; Application of geophysical methods for site investigation; Construction materials; Mass movement, their causes and prevention.

IV. Economic and Applied Geology

Metallic and Non-metallic mineral resources of Pakistan. Mineral-based industries. Overview of Recodec Copper. Radioactive minerals and their occurrences in Pakistan. Gemstones of Pakistan

Geology of Reservoirs, Dams .Highways and Tunnels. Major natural hazards and their Impact on the environment with special reference to Pakistan.

SUGGESTED READINGS

| S. No. | Title | Author |
|--------|---|---|
| 1. | Geology of Pakistan | Bender, F.K. & Raza, H.A., |
| 2. | Techniques in Mineral Exploration | Reedman, J.H. |
| 3. | Exploration and Mining Geology | Peters, W.E., |
| 4. | Mining Geology | Mckinstry, H.B., |
| 5. | Environmental Geology | Montgomery, C.W., |
| 6. | Economic Geology: Principles and Practice | Walter L. Pohl |
| 7. | Energy Resources | Brown and Skipsy |
| 8. | Pakistan Energy Yearbook 2012 | Ministry of Petroleum and Natural Resources Hydrocarbon Development Institute of Pakistan. Islamabad |