

MGNREGA MALERKOTLA

SYLLABUS

POSTS:

1. ACCOUNT MANAGER
2. ADDITIONAL PROGRAM OFFICER
3. COMPUTER ASSISTANT

SYLLABUS		
MENTAL ABILITY	20 questions	20 Marks
GENERAL STUDIES	15 questions	15 Marks
MGNREGA BASICS	10 questions	10 Marks
COMPUTER PROFICIENCY	20 questions	20 Marks
ENGLISH PROFICIENCY	10 questions	10 Marks
Total	75 questions	75 Marks

1. MENTAL ABILITY (20 Q):

Analogy / Analogous Problems, Classification, Word formation, Series, Ranking / Arrangement, Coding & Decoding, Distance and Direction, Symbol & Notation, Scheduled Day or Date, Data Analysis, Simplification, Numbers, HCF & LCM, Percentage, Average, Ratio & Proportion, Profit & Loss, Time and Work, Time and Distance.

2. GENERAL STUDIES (15 Q)

Indian Economy, Science and Technology, Current Events (National & International), Political Awareness/Polity, Persons in News, Important Awards & Honours, Sports (National & International), General information about the State of Punjab.

3. MGNREGA BASICS (10 Q)

NREGA Operational Guidelines 4th Edition 2013, NREGA Act 2005 and Amendments, Annual Master Circular 2021-22, FAQ (Frequently Asked Questions) 2014.

4. COMPUTER PROFICIENCY (20 Q):

Basic Fundamentals of Computer, PC and System Software, Memory, Classification of Computer, Computer Networks, Computer Devices, Operating System: Windows, MS Word, MS PowerPoint, MS Excel, Internet, Internet Programming Language (HTML/DHTML), Basics of C-Programming Language, OOPS, Computer Virus, Security Aspects for PC.

5. ENGLISH (10 Q):

Comprehension, Common Errors, Sentence Improvement, Fill in the blanks, Antonyms and Synonyms, Idioms and Phrases, Use of Propositions, Nouns, Adverbs, and Adjectives.

POST:**1. TECHNICAL ASSISTANT**

SYLLABUS		
MENTAL ABILITY	20 questions	20 Marks
GENERAL STUDIES	15 questions	15 Marks
MGNREGA BASICS	10 questions	10 Marks
COMPUTER PROFICIENCY	10 questions	10 Marks
CIVIL ENGINEERING-RELATED	20 questions	20 Marks
Total	75 questions	75 Marks

1. MENTAL ABILITY (20 Q):

Analogy / Analogous Problems, Classification, Word formation, Series, Ranking / Arrangement, Coding & Decoding, Distance and Direction, Symbol & Notation, Scheduled Day or Date, Data Analysis, Simplification, Numbers, HCF & LCM, Percentage, Average, Ratio & Proportion, Profit & Loss, Time and Work, Time and Distance.

2. GENERAL STUDIES (15 Q)

Indian Economy, Science and Technology, Current Events (National & International), Political Awareness/Polity, Persons in News, Important Awards & Honours, Sports (National & International), General information about the State of Punjab.

3. MGNREGA BASICS (10 Q)

NREGA Operational Guidelines 4th Edition 2013, NREGA Act 2005 and Amendments, Annual Master Circular 2021-22, FAQ (Frequently Asked Questions) 2014.

4. COMPUTER PROFICIENCY (10 Q):

Basic Fundamentals of Computer, PC and System Software, Memory, Classification of Computer, Computer Networks, Computer Devices, Operating System: Windows, MS Word, MS PowerPoint, MS Excel, Internet, Internet Programming Language (HTML/DHTML), Basics of C-Programming Language, OOPS, Computer Virus, Security Aspects for PC.

1. CIVIL ENGINEERING RELATED(20 Q)

- I. **FLUID MECHANICS:** Properties of Fluids, Hydrostatic Pressure, Measurement of Pressure, Fundamentals of Fluid Flow, Flow Measurements, Flow through Pipes (Definition of pipe flow; Reynolds number, laminar and turbulent flow, Critical velocity and velocity distributions in a pipe for laminar flow, Head loss in pipe lines, Hydraulic gradient line and total energy line, Pipes in series and parallel, Water hammer phenomenon etc.).
- II. **SURVEYING:** Basic principles of surveying, Concept and purpose, Instruments used for taking these measurements etc., Chain surveying, Compass surveying,

Levelling, Plane Table Surveying, Total Station Method, Auto Level, Contouring, Theodolite Surveying.

- III. **CONSTRUCTION MATERIALS & BUILDING CONSTRUCTION:** General characteristics of stones, Bricks and Tiles, Cement (Various types of Cements, Properties of cement etc.), Lime, Timber and Wood Based Products, Paints and Varnishes, Introduction to Building Construction, Foundation, Walls, Masonry, Arches and Lintels, Doors, Windows and Ventilators, Damp Proofing and Water Proofing, Floors, Roofs, Stairs, Anti Termite Measures, Building Planning etc. Concrete, uses of concrete in comparison to other building materials, Ingredients of Concrete, Properties of Concrete, proportioning for Normal Concrete, Concreting Operations.
- IV. **STRUCTURAL ENGINEERING:** Simple stresses and strains, Elasticity, Hooke's Law, Moduli of Elasticity and Rigidity. Stresses and strains of homogeneous materials. Types of beams and supports and loads, Concept of bending moment and shear force. Bending moment and shear force diagrams for simple cases. Deflection in beams. Moment area theorem, Bending and shear stresses in circular, rectangular, T and L sections, Introduction to IS:456 (latest edition), Design of singly and doubly Reinforced beams, Design of Columns-Types of Columns: Short and long column, load carrying capacity, effective length of column, lateral and helical ties. Design of slabs types of slabs, one-way slab, and two-way slab, Design of foundations.
- V. **WATER SUPPLY AND WASTE WATER ENGINEERING:** Water requirement, Rate of demand and supply, Per capita consumption, Population Forecasting etc., Physical, Chemical and bacteriological properties, Standard of potable water as per Indian Standard etc.), Water Treatment including Sedimentation, Coagulation, flocculation, Filtration, disinfection of water, chlorination, Water treatment plants, Types of sewage, Sewerage, Laying and Construction of Sewers, Sewage characteristics (Properties of sewage as per IS standards), Importance of Environmental Engineering, Water Pollution, Air Pollution, Noise Pollution.
- VI. **SOIL AND FOUNDATION ENGINEERING:** Physical Properties of Soils, Classification and Identification of Soils, Permeability and its importance, Effective Stress, Strength Characteristics of Soils, Compaction, Bearing Capacity of soil, Concept of shallow and deep foundation; types of shallow foundations and their suitability.
- VII. **TRANSPORTATION ENGINEERING:** Traffic Engineering, Road materials, Geometric design, flexible and rigid pavements, Road maintenance, Railway Engineering Rails, Sleepers, ballast, points and crossing.
- VIII. **QUANTITY SURVEYING AND VALUATION:** Introduction to quantity surveying and its importance, duties of quantity surveyor, types of estimates, measurement, preparation of detailed and abstract, estimates from drawings, calculation of quantities of materials, analysis of rates, Construction Planning, CPM, PERT.

POST:**1. GRAM ROZGAR SEWAK**

SYLLABUS		
MENTAL ABILITY	25 questions	25 Marks
GENERAL STUDIES	25 questions	25 Marks
MGNREGA BASICS & RURAL GOVERNANCE	25 questions	25 Marks
Total	75 questions	75 Marks

1. MENTAL ABILITY (25 Q):

Analogy / Analogous Problems, Classification, Word formation, Series, Ranking / Arrangement, Coding & Decoding, Distance and Direction, Symbol & Notation, Scheduled Day or Date, Data Analysis, Simplification, Numbers, HCF & LCM, Percentage, Average, Ratio & Proportion, Profit & Loss, Time and Work, Time and Distance.

2. GENERAL STUDIES (25 Q)

Indian Economy, Science and Technology, Current Events (National & International), Political Awareness/Polity, Persons in News, Important Awards & Honours, Sports (National & International), General information about the State of Punjab.

3. MGNREGA BASICS & RURAL GOVERNANCE (25 Q)

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