

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

OFFICE OF THE REGISTRAR

No:- NITS/Estt/Advt/Non-Teaching/01/26

Date: 16/10/2026

SCHEME AND SYLLABUS OF WRITTEN TEST FOR EXECUTIVE ENGINEER

Name of the Post	Executive Engineer
Tentative scheme of Written Test	1. Objective-type test (MCQ) consisting of 60 questions. 2. Total Marks: 120 (each question carries 02 marks). 3. Syllabus: • General Aptitude : 20 questions • Domain Knowledge: 40 questions 4. Negative Marking: 0.5 marks will be deducted for each incorrect answer. Unanswered questions will not attract negative marks. 5. Duration of Written Test: 90 Minutes. 6. Date of Written Test & Personal Interview: 06.11.2026 (Friday) 7. Venue: NIT Silchar.

Based on the marks obtained in the written test, the top 10 candidates, may vary based on merit, will qualify to appear in the Personal Interview. Selection of the candidates will be done solely based on the performance in the Personal Interview and recommendation of the Selection Committee.

The online link for downloading the admit card will be made available soon in the institute website. Candidates can download and take a print of the admit card. He/she must carry a hard copy of the admit card to the venue along with a valid photo ID proof. No candidate will be allowed to appear for the tests without the admit card and valid photo identification proof. All candidates are asked to go through the instructions mentioned in the admit card. For any queries, candidates can send an email to **staff_recruitment@nits.ac.in**.

BROAD SYLLABUS OF GENERAL APTITUDE FOR THE POST OF EXECUTIVE ENGINEER:

General Awareness: Includes questions relating to the Indian constitution, geography, economics, general policy, science & scientific research, national/international organisations/ institutions, current events, environment etc., questions related to the NIT structure and statutes etc.

Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgement, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetic reasoning, verbal & figure classification, arithmetical number series etc.

Quantitative Aptitude: Includes questions relating to simplification, decimals, fractions, LCM, HCF, ratio & proportion, percentage, average, profit & loss, discount, simple & compound interest, mensuration, time & work, time & distance, tables & graphs, solving algebraic equations.

BROAD SYLLABUS OF DOMAIN KNOWLEDGE FOR THE POST OF EXECUTIVE ENGINEER

Analysis rates, Estimating of quantities of materials, Specifications (DSR, CSR etc.), Specifications for roads and bridges, Measurement of work methods, Project estimate and public works accounts, Contracts and measurement book, Knowledge of e-tendering for construction and maintenance activities, Arbitration and valuation, Quality assurance/quality control, Health and safety measures, Capacity building, PERT and CPM, Construction equipment and machinery, Knowledge of latest surveying and levelling equipment and techniques, Building bye laws. Estimation of water demand, Drinking water Standards, Water Treatment Plants, Water distribution networks. Planning and design of domestic waste water, sewage collection and disposal, Plumbing System. Components and layout of sewerage system, Planning & design of Domestic Waste-water disposal system, Sludge management including treatment, disposal and re-use of treated effluents, Industrial waste waters and Effluent Treatment Plants including institutional and industrial sewage management. Reinforced concrete and steel design, Vetting of structural design, Knowledge of relevant Indian Standard Codes of Practice, Testing of concrete for fresh and hardened properties, Basics of concrete mix design, Non-destructive testing of concrete, Knowledge of special concretes, Maintenance of buildings and roads. Basic concepts of bending moment and shear force, Simple stress and strain, Simple bending theory, Flexural and shear stresses, Shear center, buckling of columns, combined and direct bending stresses. Origin of soils, Soil classification, Three-phase system, Fundamental definitions, Relationship and interrelationships, Permeability & seepage, Effective stress principle, Consolidation, Compaction, Shear strength. Sub-surface investigations- penetration tests, plate load tests, Foundation types design requirements, Shallow foundations-bearing capacity, effect of water table and other factors, stress distribution, settlement analysis in sands and clays. Introduction to brick masonry, Stone masonry, Walls, Damp proofing, Arches and lintels, Doors and windows, Stairs and staircases, Plastering and pointing, White washing, Distempering and painting, Scaffolding.

Note: The syllabus provides an indicative framework and covers only the broad topics. Candidates are expected to possess comprehensive and in-depth knowledge of the subject as a whole.