



सीएसआईआर – राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान
CSIR-National Institute for Interdisciplinary Science and Technology
तिरुवनंतपुरम/ Thiruvananthapuram



No.2-Adm(03)/2025-E.I

तारीख/ Date: 19.08.2026

अधिसूचना/NOTIFICATION

RECRUITMENT TO THE POST OF TECHNICIAN (1) (TE2501) VIDE ADVT. NO.
01/2025

SYLLABUS FOR PAPER-III

Name of the post	: Technician (1)
Post Code	: TE2501
Area	: Draughtsman (Civil)
Category	: EWS

विज्ञापन संख्या 01/2025 के तहत विज्ञापित टेक्नीशियन (1) (पोस्ट कोड: TE2501) के पद के लिए पाठ्यक्रम, उम्मीदवारों की जानकारी और मार्गदर्शन के लिए इसके साथ संलग्न है।
उम्मीदवारों को सलाह दी जाती है कि परीक्षा की तैयारी करते समय वे पाठ्यक्रम को ध्यान से देख लें।

The syllabus for the post of Technician (1) (Post Code:TE2501) advertised vide **Advertisement No. 01/2025** is attached herewith for the information and guidance of the candidates.

Candidates are advised to go through the syllabus carefully while preparing for the examination.

[Signature]
19/8/26

प्रशासन नियंत्रक/ Controller of Administration



CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY, Thiruvananthapuram-19.

Annexure-I



Syllabus for the Post of Draughtsman (Civil) – PAPER - II

Part A – Engineering Drawing and Drafting

Drawing instruments, drawing sheets, layouts and title blocks, Types of lines, lettering, dimensioning and symbols, Geometrical constructions, Engineering scales (plain, diagonal, comparative and vernier), Orthographic projections, Isometric and perspective drawings, Sectional views, Standard conventions (BIS/IS codes) for civil engineering drawings, Reading and interpretation of engineering drawings

Part B – Building Planning and Architectural Drawing

Building components and construction sequence, Building bye-laws (basic concepts), Residential building planning, Plans, elevations and sections, Doors, windows and ventilators, Staircases, ramps, lifts and escalators, Foundations (shallow and deep), Damp proof course (DPC), Arches and lintels, Roofs and roof trusses, Brick masonry and stone masonry, Timber joints and carpentry details, RCC building details, Structural steel framing details.

Part C – Surveying

Chain and tape survey, Compass survey, Plane table survey, Levelling and contour mapping, Theodolite survey, Area calculation, Traversing, Topographical mapping, Introduction to Total Station, GPS applications in surveying

Part D – Computer Aided Drafting (AutoCAD)

AutoCAD interface, Drawing setup, Coordinate systems, Drawing and Modify commands, Layers, Text and Dimension styles, Hatch, Blocks and attributes, External references, Plotting and printing, 2D drafting, Basic 3D concepts, Architectural drafting using CAD, RCC detailing using CAD Structural steel detailing using CAD

Part E – Civil Construction Drawings

Residential and public building drawings, RCC detailing, Bar Bending Schedule (BBS), Structural steel drawings, Plumbing and sanitary drawings, Water supply layouts, Septic tank and manhole details, WTP and STP layouts, Roads, culverts, bridges, Railway track sections, Dams, barrages, weirs and hydroelectric project layouts

Part F – Estimation and Costing

Quantity estimation, Approximate and detailed estimates, Rate analysis, BOQ preparation, Basic cost analysis

Part G – Basic Civil Engineering

Engineering materials (cement, concrete, steel, bricks, timber), Concrete technology (basic concepts), Building construction practices, Basic knowledge of RCC and steel structures, Construction safety and PPE, Units, measurements and standard terminology