TIT LATERAL ENTRANCE EXAMINATION **(TITLEE)2026**

Tripura Institute of Technology

Narsingarh

PO: Agartala Aerodrome, Narsingarh, Tripura (West)-799009

DEPARTMENT OF HIGHER EDUCATION
GOVERNMENT OF TRIPURA

INFORMATION BROCHURE

Vision of the Institution:

The vision of the Institute is to emerge as one of the best Technical Institutes of the Country in creating quality engineers and leaders through excellence in technical education for industries and for the society.

Mission of the Institution:

The mission of the institute is to:

1. Impart quality technical education to develop innovative, entrepreneurial and ethical technocrats,
2. Develop collaborative partnership with industries and academia,
3. Provide sustainable technical solutions for the societal needs,
4. Provide participative learning in a cross-cultural environment that encourages learning beyond the class room.

"RAGGING IS TOTALLY BANNED AND ANYONE FOUND GUILTY OF RAGGING AND /OR ABETTING RAGGING IS LIABLE TO BE PUNISHED."

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DEPARTMENT OF HIGHER EDUCATION
GOVERNMENT OF TRIPURA
NARSINGAR, TRIPURA WEST, PIN-799009

INFORMATION BROCHURE

1. Introduction:

The TIT Lateral Entrance Examination (TITLEE) is conducted for admission to the Degree Programs against 25% seats kept reserved for the Diploma pass out candidates including in service candidates for lateral entry into Second Year (3rd Semester) of the Degree Program in Tripura Institute of Technology, Narsingarh who would apply through proper channel and would fulfil all the eligibility criteria as set forth for such admission. The allocation of seats against the reservation would be on the basis of the prevailing reservation policies of the Government of Tripura. Eligibility criteria and other terms & conditions as envisaged below:

2. Examination Scheme for Lateral Entry into Degree Program:

The Lateral Entrance Examination (**TITLEE-2026**) would consist of one paper of **100 marks and of 02 (Two) hours** duration. All the questions will be **MCQ** type carrying one mark. For each incorrect response (answer) **¼ mark will be deducted**. The medium of examination, i.e. setting of question papers etc will be only in English. Mode of Selection would be strictly on merit based as reflected in the written examination.

3. No. of Seats available:

	Branch of Degree Engineering	Seats	Remarks
1	Civil Engineering	15	In addition six(06) number of supernumerary seats in each branch and all unfilled previous year vacancies (if any) in the 1st Year B.Tech in each branch will be allowed for admission through TITLEE 2026
2	Computer Science & Engineering	15	
3	Electrical Engineering	15	
4	Electronics & Communication Engineering	15	
5	Mechanical Engineering	15	

4. Eligibility Criteria:

a) General Criteria

- There is no age limit for the candidates. In service candidates have to apply either through proper channel submitting an advance copy **or** a "No Objection Certificate" from the employer with the application. However, such candidates have to submit Release Order from their parent Department at the time of admission.
- Candidates must be a permanent resident of Tripura (attested copy of PRC / PRTC should be submitted).
- Candidates must be a Diploma pass out (Full Time Course) from **AICTE** approved Institute in ANY branch of engineering.

OR

- Candidates appearing Diploma final examination in the year 2026 in ANY branch of engineering need to produce their Diploma Pass Certificate/Mark-sheet positively at the time of counseling, failing which their candidature for such admission will be summarily rejected.

b) Technical Criteria:

Branch of Degree Engineering	Eligibility Criteria
1. Mechanical Engineering.	Passed Minimum THREE years / TWO years (Lateral Entry) Diploma examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) in **ANY** branch of Engineering and Technology.
2. Civil Engineering.	
3. Electronics & Communication Engineering.	
4. Computer Science & Engineering.	
5. Electrical Engineering.	

5. Submission of Application Form:

Eligible candidates may submit the application through the online application form using the link available in the institute website **www.titagartala.ac.in** from **17th April 2026 to 7th May 2026** after the payment of **Rs. 700/-** (Rupees Seven hundred) only through **online payment gateway**, towards processing & examination fee.

6. Downloading of Admit Card:

Admit card will be downloaded by the candidates himself/herself from **19th June 2026(Online)** onwards using candidates' login credential**.**

7. Tentative Date of Examination of TITLEE-2026:

Date	Time
24th June 2026 (Wednesday)	**12:00 Noon – 2:00 PM**

8. Tentative Venue of Examination: Tripura Institute of Technology, Narsingarh, Tripura West.

9. Tentative Date of Publication of Merit List: 14th July, 2026 (Wednesday) at about 4:00 PM.

10. Date of Counselling: Exact date, time and venue of counselling for allotment of seat will be notified in due course of time through the Local Newspaper as well as **Tripura institute of Technology**, Narsingarh website **www.titagartala.ac.in**

11. Address of communication:

Office of the Principal, TIT, Narsingarh.
TIT Lateral Entrance Examination-2026
Tripura Institute of Technology, Narsingarh.
E-mail Id: chairmantitlee@gmail.com

12. *Important Instructions for Candidates:*

a. **Other than Non-Programmable Calculator**, no electronic gadgets and watches are allowed inside the Examination Rooms / Halls.

b. During examination, candidates are instructed to fill up the **OMR Sheet carefully** by using **BLACK/BLUE Ball Pen Only**. Answer script will not be considered if answered by using different ink or by pencil.

c. Without Admit card, no candidates will be allowed inside the Examination Centre.

d. Candidates must report at the venue of Examination Centre by **11: 00 AM**

e. Candidates would not be allowed to leave the room till the completion of the examination **(02:00 PM).**

f. Candidates would not be allowed to enter the examination room after the commencement of the examination **(12.00 Noon).**

g. **Candidates are instructed to visit the Tripura Institute of Technology website www.titagartala.ac.in regularly for updates if any.**

13. Important Dates to Remember:

Sl No	Date	Day	Program
1	17.04.2026-07.05. 026	Friday - Thursday	Form fill up, Verification etc
2	10.06.2026	Wednesday	Publication of Provisional list of candidate
3	19.06.2026	Friday	Download of Admit card online(onwards)
4	24.06.2026	Wednesday	Tentative Date of TITLEE Examination-2026 and Uploading of answer key (After completion of Examination)
6	14.07.2026	Tuesday	Tentative Date of Merit List Publication

14. Syllabus of Tripura Institute of Technology Lateral Entrance Examination (TITLEE-2026)

1) Mathematics (Total Marks-20)

Matrix & Vector Matrix: Definition – Order of a matrix – Leading element – Principal diagonal. Types of matrices – Null matrix – Square matrix – Identity matrix – Upper and lower triangular matrix – Symmetric matrix. – Determinant of a square matrix – Minors and cofactors – Procedures for evaluation – Properties of determinants (no deduction) – Evaluation of determinant by Chio's method (4th order) – Problems. –Concept of vector – Addition and subtraction of vectors – Multiplication of a vector by a scalar – Position vector of a point – Ratio formula – Rectangular resolution of a vector – Dot and cross product – Geometrical interpretation – Distributive law – Applications.

Calculus: Differential Coefficient- Differentiation of some standard functions from first principles- (x^n,sinx, cosx, tanx, e^x and $\log_a x$). - Differentiation of sum, product and quotient of function. - Differentiation of trigonometric and inverse trigonometric functions, Logarithmic functions, Exponential functions – simple problems. - Derivative of function of a function, implicit functions, parametric function. Logarithmic differentiation – simple problems. - Successive differentiation upto 2nd order – simple problems. -Physical meaning of derivative – Velocity and Acceleration – Maxima & Minima.

Concept of Integration: Integration as inverse operation of differentiation. - Fundamental Theorem of Integral calculus -Simple integration by substitution. - Integration by parts -Integration by partial fractions (for linear factors only). - Use of formulas $\int_0^{\pi} \sin nx\, dx$, $\int_0^{\pi} \cos nx\, dx$ and $\int_0^{\pi} \sin mx \cos nx\, dx$ for solving problems where m and n are positive integers. -Properties of definite Integral. - Applications of integration for - i). Simple problem on evaluation of area bounded by a curve and axes. ii). Calculation of Volume of a solid formed by revolution of an area about axes - Simple problems.

Differential Equations: Definition – Order and degree of a differential equation – Differential equations of 1st order and 1st degree – separation of variables – Problems. – Homogeneous differential equations – Equations reducible to the homogeneous form – Problems. – Exact differential equations – equations reducible to the exact form – problems. – Linear equations – Bernoulli's equations. – Differential equations of 2 nd order with constant coefficients – Complementary function and particular integral – Problems.

Partial Differentiation: Function of two or more variables – Definition and meaning of partial derivatives (1st order). – Homogeneous functions – Euler's theorem on homogeneous functions (no deduction) – Problems.

Probability and Statistics: Introduction – Random experiment – Sample space – Events. – Classical and axiomatic definition of probability. – Addition and multiplication theorem – Related problems. – Statistics – Frequency distribution. – Measure of central tendency – Mean – Median – Mode – Standard deviation – Simple problems.

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2) Physics (Total Marks-20)

Force & Motion: Force, Resolution of force, Free body diagram, Conservation of linear momentum and its application, Impulse and its application, Angular displacement; angular velocity; angular acceleration and their relation with linear displacement; linear velocity and linear acceleration, Frequency and time period of revolution & rotation, Centripetal and centrifugal forces, their examples and applications, Banking of roads, Torque and its application, Conservation of angular momentum and its application, Concept of centre of mass and Centre of gravity, Moment of Inertia, rotational kinetic energy

Properties of Matter: Elasticity and its significance, Stress & Strain, Stress-Strain Curve, its significance and application, Hooke's Law, Moduli of elasticity, Poisson's ratio, Viscosity and its significance, Coefficient of viscosity: Terminal velocity, Stokes' law, Effect of temperature on viscosity, Application in hydraulic systems. Fluid motion, Streamline and Turbulent flow, Reynolds' number, Equation of continuity, Bernoulli's Theorem, and its applications.

Electrostatics & Magneto statics: Gauss law: Application of Gauss law to find the electric field intensity of a straight charged conductor, a plane charged sheet, and a charged sphere. Capacitor and its working, Types of capacitors, Capacitance and its units. Capacitance of a parallel plate capacitor, Series and parallel combination of capacitors, Magnetic field, Magnetic intensity, Magnetic flux, Magnetization. Galvanometer, Ammeter, Voltmeter, Conversion of a galvanometer into an ammeter and voltmeter, and conversion of an ammeter and voltmeter into a larger scale.

Current Electricity: Direct and alternating current, Resistance and its units, Specific resistance, Conductance, Specific conductance, Series and parallel combination of resistances. Factors affecting resistance of a wire, Ohm's law and its verification, Kirchhoff's laws, Wheatstone bridge and its applications (slide wire bridge only), Concept of terminal potential difference and Electro motive force (EMF), Heating effect of current, Electric power, Electric energy and its units, Maximum power transfer theorem.

Semiconductor Physics: Energy bands in solids, Types of materials (insulator, semiconductor, conductor) and their Band diagrams, Intrinsic and extrinsic semiconductors, p-n junction, junction diode and V-I characteristics, different types of junction diodes and their applications. Diode as rectifier – half wave and full wave rectifier (Centre taped), n-p-n & p-n-p Transistor; Transistor as an amplifier (C-E mode), Photocells, Solar cells; working principle and engineering applications

Modern Physics: Lasers: Energy levels, Ionization and excitation potentials; Spontaneous and stimulated emission; Population inversion, Pumping methods, Optical feedback, Ruby, He-Ne, and semiconductor laser (characteristics only), Engineering and medical applications of lasers. Optical fiber, Refractive index, Total internal reflection, Critical angle, light propagation, acceptance angle, and numerical aperture (Expression only), Types of optical fiber, Applications of optical fiber in telecommunication, medical, and sensors, Nanoparticles and nanomaterials, properties at the Nano scale, Nanotechnology-based devices and applications.

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3) Electrical and Electronics Engineering (Total Marks-20)

Electrical Engineering

Introduction to Passive and Active Components: Resistances, Capacitors, Inductors, Voltage Source, Current Source, A.C & D.C Signal, periodic/non-periodic signals, Kirchhoff's voltage and current laws, Star-delta transformations – Simple problems on all topics.

AC Fundamentals: Cycle, Frequency, Periodic time, Amplitude, Angular velocity, RMS value, Average value, Form Factor, Peak Factor, impedance, phase angle, and power factor; Mathematical and phasor representation of alternating emf and current, A.C in resistors, inductors and capacitors; A.C in R-L series, R-C series, R-L-C series and parallel circuits; Power in A.C. Circuits, power triangle, simple numerical on all relevant topics.

Electromagnetics Circuits and Its Application: EMF, Current, Potential Difference, Power and Energy; M.M.F, magnetic force, permeability, hysteresis loop, reluctance, leakage factor and BH curve; Electromagnetic induction, Faraday's laws of electromagnetic induction, Lenz's law; Dynamically induced emf; Statically induced emf; Equations of self and mutual inductance; Analogy between electric and magnetic circuits. Basic working principle of transformer, DC motor and generator– Simple problems on all topics.

Electronics Engineering

Basic Electronics: Semiconductor, type, biasing of PN diode, VI characteristics of PN diode, Rectifier-type and operation. Bipolar Junction Transistor-types, operation, configurations, applications, JFET and MOSFET-type, operation, VI characteristics, idea of drain resistance, transconductance, amplification factor, Operational amplifiers- ideal Op-amp, practical Op-amp, open loop and closed loop configurations, design of adder, subtractor, comparator, differentiator and integrator circuits, simple numerical on all relevant topics.

Digital Electronics: Difference between analog and digital operations, Logic levels, Logic gates, Boolean algebra, idea of combinational and sequential circuits such as half adder, full adder, multiplexer, demultiplexer, encoder, decoder etc. and simple numerical on all relevant topics.

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4) Computer Applications (Total Marks-20)

Introduction to Computer: Brief history of Evolution of computer — Various components of Computer (brief knowledge) -Hardware – CPU, Input Output System, Primary Memory, Secondary Memory.

Information Representation Number System: Binary, Octal & Hexadecimal and conversion of number systems, Signed and unsigned representation. Binary arithmetic and compliments. Character Codes: ASCII, BCD and Gray Codes.

Basic of Software: Classification of Software Systems - System Software and application software. Basic concepts of compilers, interpreters, assemblers and device drives. Operating System – Single user, multi user, graphical user interface and characters user interfaces. Case studies: MS – DOS, Windows.

Introduction to programming: Algorithm and flowchart. Different types of programming languages – Machine level, assembly level and high level languages (basic concepts only). Brief introduction to different high level languages including C. Basic of C-language. Branching and loping statements. Array and user defined functions. Searching, Basic Sorting Algorithms (Bubble, Insertion and Selection), Finding roots of equations, notion of order of complexity through

example programs. Functions, Parameter passing in functions, call by value, passing arrays to functions: idea of call by reference, Recursion Example programs, such as Finding Factorial, Fibonacci series, Ackerman function etc. Structure Structures, Defining structures and Array of Structures, Pointers, Idea of pointers, Defining pointers, Use of Pointers in self-referential structures.

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5) Engineering Mechanics (Total Marks-20)

Basics of mechanics and force system: Significance and relevance of Mechanics, Applied mechanics, Statics, Dynamics. Space, time, mass, particle, flexible body and rigid body. Scalar and vector quantity, Units of measurement (SI units) - Fundamental units and derived units.

Force – unit, representation as a vector and by Bow's notation, characteristics and effects of a force, Principle of transmissibility of force, Force system and its classification.

Resolution of a force - Orthogonal components of a force, moment of a force, Varignon's Theorem. Composition of forces – Resultant, analytical method for determination of resultant for concurrent, non-concurrent and parallel co-planar force systems – Law of triangle, parallelogram and polygon of forces.

Equilibrium: Equilibrium and Equilibrant, Free body and Free body diagram, Analytical and graphical methods of analysing equilibrium

Lami's Theorem – statement and explanation, Application for various engineering problems. Types of beam, supports (simple, hinged, roller and fixed) and loads acting on beam (vertical and inclined point load, uniformly distributed load, couple),

Beam reaction for cantilever, simply supported beam with or without overhang – subjected to combination of Point load and uniformly distributed load.

Beam reaction graphically for simply supported beam subjected to vertical point loads only.

Friction: Friction and its relevance in engineering, types and laws of friction, limiting equilibrium, limiting friction, co-efficient of friction, angle of friction, angle of repose, relation between co-efficient of friction and angle of friction.

Equilibrium of bodies on level surface subjected to force parallel and inclined to plane. Equilibrium of bodies on inclined plane subjected to force parallel
to the plane only.

Centroid and centre of gravity: Centroid of geometrical plane figures (square, rectangle, triangle, circle, semi-circle, quarter circle) Centroid of composite figures composed of not more than three geometrical figures Centre of Gravity of simple solids (Cube, cuboid, cone, cylinder, sphere, hemisphere) Centre of Gravity of composite solids composed of not more than two simple solids.

Trusses: Assumptions for Analysis of Trusses, Arrangement of Members of Plane Trusses— Internal Stability, Equations of Condition for Plane Trusses, Static Determinacy, Indeterminacy, and Instability of Plane Trusses

Analysis of Plane Trusses by the Method of Joints, Analysis of Plane Trusses by the Method of Sections

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