

GATE Syllabus 2026

IIT Madras (2027 edition) / IISc & IITs on rotation — Graduate Aptitude Test in Engineering

Vacancies	Not post-specific — GATE is a qualifying exam for M.Tech admissions, direct PSU recruitment and PhD/JRF opportunities, not a direct-vacancy exam
Age Limit	No age limit
Qualification	3rd year or higher of an approved undergraduate degree (Engineering/Technology/Architecture/Science/Commerce/Arts), or a completed Bachelor's/Master's degree in a relevant discipline
Application Fee	■1,000 per paper (Female/SC/ST/PwD candidates); ■2,000 per paper (all other candidates). Late fee adds ■500.
Official Website	gate2027.iitm.ac.in
Last Reviewed	16 Jul 2026

Overview

GATE is India's national-level engineering aptitude test, jointly administered by IISc Bengaluru and the IITs on a rotating basis — IIT Madras is organising the 2027 edition. It serves three major purposes: gateway to M.Tech/ME/direct PhD admissions at IITs, NITs, IIITs and other institutes; direct recruitment into many Maharatna and Navratna PSUs (NTPC, BHEL, ONGC, IOCL, Power Grid, and others) which shortlist candidates purely on GATE score, often without a separate written test; and eligibility for Junior/Senior Research Fellowships at ISRO, DRDO, BARC, CSIR and similar research bodies. The exam spans 30 subject papers, each a single 3-hour computer-based test combining General Aptitude (common to all papers) with subject-specific content.

What's New in the 2026 Cycle

- GATE 2027 will be conducted by IIT Madras; candidates may attempt one or up to two papers from approved combinations.
- Score is normalised on a 0–1000 scale (not raw marks) and remains valid for 3 years, though most PSUs accept only the current year's score for recruitment.
- Question types include MCQ, Multiple Select Questions (MSQ) and Numerical Answer Type (NAT) — NAT questions carry no negative marking.
- A GATE score above roughly 700–750 is typically considered competitive for top PSU recruitment, well above the mere qualifying cut-off.

Exam Pattern

GATE Paper (single session, subject of choice)

Mode: Online, computer-based (MCQ + MSQ + NAT) | Duration: 3 hours

Section	Questions	Marks
General Aptitude (common to all papers)	—	15

Engineering Mathematics (most papers)	—	13
Subject-Specific Core Topics	—	72

Negative marking: 1/3rd mark deducted per wrong answer for MCQs only; MSQ and NAT questions carry no negative marking | **Nature:** Score is normalised (0–1000 scale) and used directly for M.Tech admissions and PSU shortlisting.

GATE — Detailed Subject-Wise Syllabus

General Aptitude (common to all 30 papers)

Consistently scoring with minimal preparation time — 15 easy marks that many candidates under-invest in.

- Verbal ability — English grammar, vocabulary, comprehension
- Quantitative aptitude — arithmetic, algebra, geometry, data interpretation
- Analytical & logical reasoning

Engineering Mathematics (most engineering papers)

A high-leverage section since the same core topics recur across most papers — master this once, benefit across your whole preparation.

- Linear Algebra — matrices, rank, eigenvalues & eigenvectors
- Calculus
- Differential equations
- Probability & statistics
- Numerical methods
- Complex variables (discipline-dependent)

Core Subject Topics (discipline-specific, examples)

The bulk of your score comes from here — prioritise high-weightage topics identified from the last 10 years of papers.

- Mechanical (ME): thermodynamics, fluid mechanics, machine design, manufacturing, theory of machines
- Civil (CE): structural engineering, geotechnical engineering, water resources, transportation, environmental engineering
- Electrical (EE): circuit theory, control systems, power systems, electrical machines, power electronics
- Electronics & Communication (EC): analog/digital circuits, signals & systems, communications, electromagnetics
- Computer Science (CS): data structures & algorithms, operating systems, DBMS, computer networks, theory of computation

Selection Process

- 1 Single computer-based GATE paper in the candidate's chosen subject(s).
- 2 Normalised score (0–1000 scale) is used directly for M.Tech admissions counselling (via COAP/CCMT) or shared with PSUs for shortlisting.
- 3 For PSU recruitment: either direct interview/GD based on GATE score, or a further PSU-conducted exam followed by interview, depending on the specific organisation's policy.

Salary & Job Profile

GATE itself carries no salary since it's a qualifying exam. M.Tech admission via GATE typically comes with an MHRD scholarship of approximately ₹12,400 per month; PSU roles secured via GATE score (Executive/Engineer Trainee) typically start with a CTC in the ₹8–14 lakh per annum range depending on the specific PSU and grade.

Best Books for Preparation

- Standard discipline-specific textbooks (e.g. Fluid Mechanics — R.K. Bansal for ME; Structural Analysis — standard CE texts)
- GATE Previous Year Solved Papers — discipline-wise (Made Easy / GATE Academy publications)
- Engineering Mathematics for GATE — standard reference texts
- GATE General Aptitude — quantitative and verbal ability guides

Previous Cut-off Trends (Approximate)

GATE qualifying cut-offs (for M.Tech eligibility) are typically far lower than the scores needed for competitive PSU recruitment — a good GATE score for PSU shortlisting is generally considered to be 700+ (out of the normalised 1000-point scale), though this varies significantly by discipline, category and the specific PSU's requirement each year. Always check discipline-wise PSU cut-off trends rather than assuming a single national figure.

Preparation Tips

- Split your core subject into high-weightage and low-weightage topics using the last 10 years of papers, and master the high-weightage ones first.
- Don't skip General Aptitude — 15 marks are scoring and achievable with just 30 minutes of daily practice.
- Since NAT questions carry no negative marking, prioritise accuracy in MCQs while attempting NAT questions confidently even without full certainty.
- If targeting PSU recruitment specifically, treat the qualifying cut-off as irrelevant — track the actual competitive score range for your target PSU and discipline.

Exam Day Guidelines

- Carry the Admit Card printout and a valid original photo ID matching your application exactly.
- GATE provides an on-screen virtual calculator — practise using it beforehand, since physical calculators aren't allowed.
- No electronic devices other than the provided on-screen tools are permitted inside the exam hall.
- The exam centre allotted on your admit card cannot be changed after allotment, so plan travel logistics early.

Frequently Asked Questions

How many papers can I attempt in GATE?

Candidates can appear in one paper, or up to two papers from the approved two-paper combinations listed in the official brochure.

Is GATE score the same as GATE marks?

No — GATE marks are your raw score out of 100, while the GATE score is a normalised value on a 0–1000 scale that accounts for paper difficulty, and this normalised score is what's used for admissions and PSU shortlisting.

How long is a GATE score valid?

Three years from the date of result announcement, though most PSUs specifically require the current year's score for recruitment.

Is there negative marking in GATE?

Yes, 1/3rd of the marks allotted is deducted for wrong MCQ answers; Multiple Select Questions (MSQ) and Numerical Answer Type (NAT) questions carry no negative marking.

Which PSUs recruit through GATE?

Prominent examples include NTPC, BHEL, ONGC, IOCL, Power Grid Corporation, SAIL, and several others — each PSU sets its own GATE score cut-off and subsequent selection process (direct interview or an additional PSU-specific exam).