



EXERGIC

India's leading institute for
online GATE prep

**GATE 2023
Test Series**

Tests Overview

Topicwise Tests

27 Tests | 15 questions per test | 45 minutes

Subject Tests

24 Tests | 23 questions per test | 75 minutes

Full Length Tests

15 Tests | 65 questions per test | 180 minutes

**“Either you bear
the pain of
discipline or you
bear the pain of
consequences”**





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GATE 2023 Test Series

Tests Topics

Topicwise Tests

Strength of Materials

SOM 1

Stress and strain, elastic constants, Mohr's circle for plane stress and plane strain, thin pressure vessels, shear force and bending moment diagrams, bending and shear stresses

SOM 2

Shear stresses in beams, concept of shear centre, deflection of beams, torsion of circular shafts, Euler's theory of columns, energy methods, testing of materials with the universal testing machine, testing of hardness and impact strength

Thermodynamics

ET 1

Heat and work, I law for closed and open system, Second law, Properties of Pure Substances

ET 2

Entropy and Availability, Thermodynamic relations, behavior of ideal and real gases

Fluid mechanics

FM 1

Fluid properties, fluid statics, forces on submerged bodies, stability of floating bodies, momentum analysis, Bernoulli's equation

FM 2

Dimensional analysis, viscous flow of incompressible fluids, boundary layer, elementary turbulent flow, flow through pipes, head losses in pipes, bends and fittings, basics of compressible fluid flow, Impact of jets, Turbines and pumps



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Theory of machines

TOM 1

Mobility, displacement analysis, velocity analysis, acceleration analysis, Dynamic analysis of Slider - crank mechanism, Cam, Gyroscope

TOM 2

Gears and gear trains, flywheels and governors, balancing of reciprocating and rotating masses, Vibrations

Heat Transfer

HT 1

Heat conduction, resistance concept and electrical analogy, heat transfer through fins, unsteady heat conduction, lumped parameter system, Heisler's charts

HT 2

Convective heat transfer, radiative heat transfer and Heat exchangers

Applied Thermo

ETA 1

Gas compressors, power cycles, I.C.engines, Turbomachinery

ETA 2

Vapour and gas refrigeration, properties of moist air, psychrometric chart, basic psychrometric processes

Machine Design

MD 1

Design for Static & Fluctuating loads, failure theories, Sliding contact and Rolling contact bearings

MD 2

Welded, riveted and threaded joints, Friction clutches, Brakes, springs

Engg Mechanics

EM 1

Vector basics, FBD and Equilibrium of forces, Centroid, COG, COM and MOI, Truss Analysis, Friction

EM 2

kinematics and dynamics of rigid bodies in plane motion, impulse and momentum (linear and angular) and energy formulations, Lagrange's equation



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Manufacturing & Production

MP 1

Metal Casting, Metal Forming, powder, metallurgy. Principles of welding, brazing, soldering and adhesive bonding.

MP 2

Metal cutting, Non Traditional Machining, Computer Integrated Manufacturing

MP 3

Metrology and Material science

Industrial Engg and OR

IEOR 1

Linear Programming, Transportation and Assignment, CPM, PERT, Queuing theory, MRP

IEOR 2

Sequencing and scheduling, aggregate production planning, Inventory Control, Forecasting, lean manufacturing

General Aptitude

GA 1

Verbal Ability

GA 2

Quantitative Aptitude

GA 3

Reasoning

Engg Mathematics

MA 1

Linear Algebra, Probability, Transform theory

MA 2

Calculus, Differential equations

MA 3

Vector calculus, Complex Analysis, Numerical methods



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Full Subject Tests

Strength of Materials	Engg Thermodynamics	Fluid Mechanics	Theory of Machines
SOM F1	ET F1	FM F1	TOM F1
SOM F2	ET F2	FM F2	TOM F2
Heat Transfer	Applied Thermodynamics	Machine Design	Engg Mechanics
HT F1	ETA F1	MD F1	EM F1
HT F2	ETA F2	MD F2	EM F2
Manufacturing & Production	Industrial Engg & Op. Reseach	Engg Mathematics	General Aptitude
MP F1	IEOR F1	MA F1	GA F1
MP F2	IEOR F2	MA F2	GA F2

Full Length Tests

FLT -1 to FLT -15



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GATE 2023 Test Series Tests Timeline

*April
2022*

EM 1
EM 2
ET 1
ET 2
ETA 1
ETA 2

Jun

MP 1
MP 2
IEOR 1
IEOR 2
GA 1
GA 2
GA 3
MA 1
MA 2

Aug

HT F1
HT F2
ETA F1
ETA F2
MD F1
MD F2
EM F1
EM F2

May

SOM 1
SOM 2
TOM 1
TOM 2
FM 1
FM 2
HT 1
HT 2
MD 1
MD 2

Jul

SOM F1
SOM F2
ET F1
ET F2
FM F1
FM F2
TOM F1
TOM F2

Sep

MP F1
MP F2
IEOR F1
IEOR F2
MA F1
MA F2
GA F1
GA F2



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GATE 2023 Test Series Tests Timeline

Oct

FLT 1
FLT 2
FLT 3

Dec

FLT 8
FLT 9
FLT 10
FLT 11
FLT 12

Nov

FLT 4
FLT 5
FLT 6
FLT 7

*Jan
2023*

FLT 13
FLT 14
FLT 15