

Online Live - Video Course for

"GATE TARGET 2021- Mechanical"

Course Starts Date - :15-08-2020



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 YouTube

[Sparks Academy Chennai](#)



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Registration 

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Why “GATE” at Sparks Academy ??...

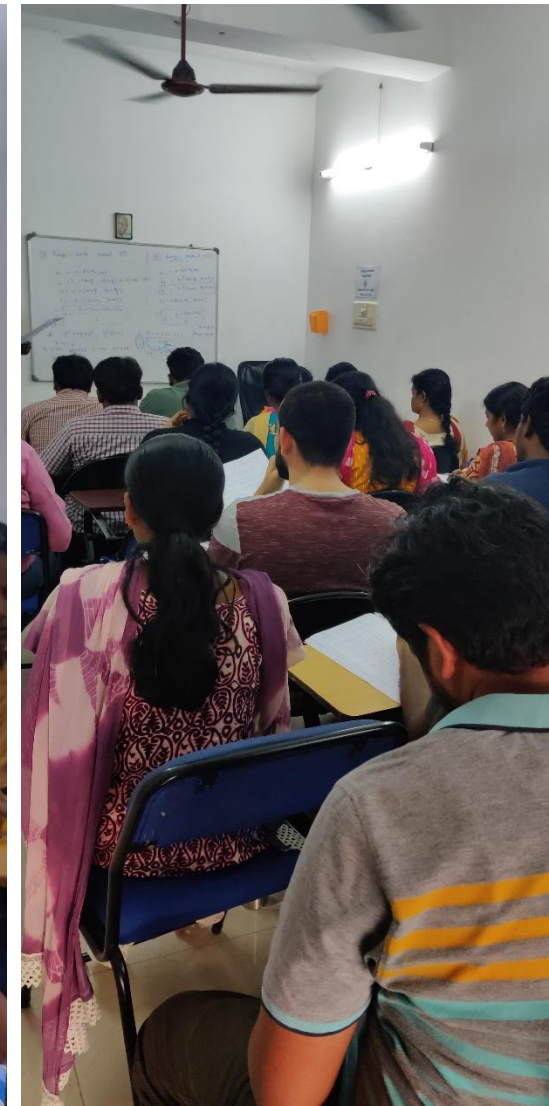
- **Highly Interactive Sessions** allow the GATE Aspirants to clear their doubts instantaneously.
- **A Personal Mentorship** leads the GATE Aspirants to get attached with the preparation consistently.
- **A Comprehensive Syllabus Coverage** helps the GATE Aspirants to attain higher level of confidence.
- **Genuine Guidance and Tips** make the GATE Aspirants to move towards a good score and rank.
- **Experienced Faculties** encourage the GATE Aspirants to get self motivated

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TARGET GATE 2021 – Highlights....

- **Pre Recorded Videos for Technical Subjects** - are available for 24X7 with unlimited streaming
- **A Pre-Defined Schedule** – is strictly followed to engage the students systematically
- **Consolidated Study Material** - is provided to all students as reference material
- **Online Test Series** – are regularly conducted (Subject-wise / Full test)
- **Engineering Mathematics** – will be completely covered with equi – importance
- **General Aptitude** – will be handled separately by GA experts

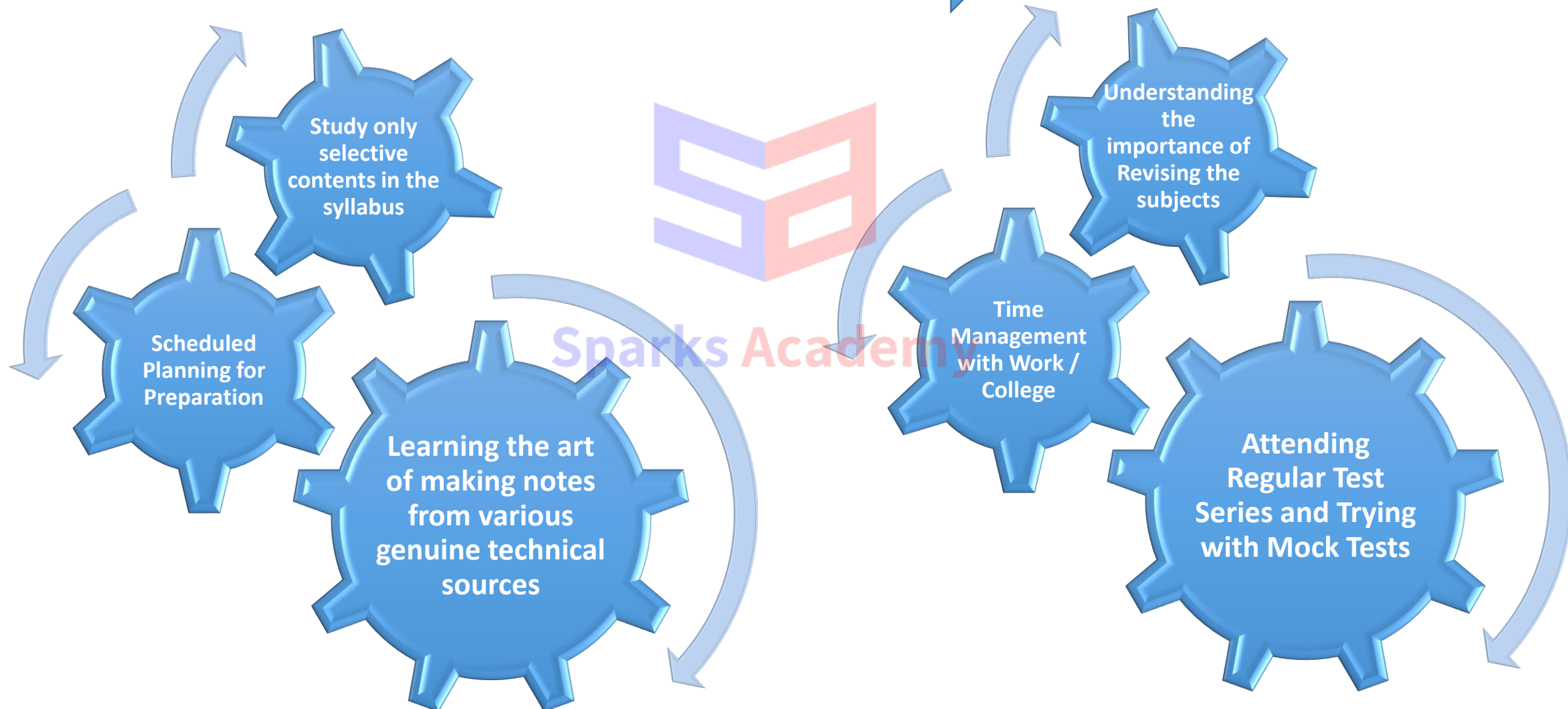
Class-room Coaching at Sparks Academy



About the course..

- The online live video course for GATE 2021 is given as subject-wise pre recorded videos as per the GATE Syllabus Contents and the live session will allow the students to interact with the concerned faculty member to clear their doubts and to discuss more GATE questions on particular contents.
- The pre recorded videos and course contents can be viewed through our official website and the videos are available 24X7 to make ease of accessibility to the students at any time.
- Students are requested to attend the live sessions conducted for both technical and mathematics (marked as red in schedule - table) without fail as the sessions will not be repeated. But the live session recordings will be made available for next 48 hours so that it could be accessible by the candidates those were unable to attend.
- The subject-wise test is mandatory for the students once they complete the particular subject. But the students can opt the timing as per their convenience within the stipulated period. Also there will be full tests and mock tests during the month of Jan-2021.
- The students attending the live sessions and technical discussions should go through the related topics using pre recorded video course materials.
- A separate technical group will be formed for the registered candidates and individual login credentials will be provided so that the accessibility for the course can be individually activated.

One - to - One Solution for GATE Preparation....



Day	Date	Session	Syllabus to be Covered / Discussed	Objective of the Course
Day 1	15/08/2020	Session 1	Online Course Inauguration - Explaining Procedure for accessing online and recorded video course and how to proceed with interactive sessions	To acquire the fundamental concepts of mechanics and its applications in Engineering. To solve previous year GATE questions and hence to achieve an ability to analyze the given problems on Applied Mechanics. To arrive instantaneous solution for conceptual problems for better time management.
Day 2	16/08/2020	Session 2	Free Body Diagram and Equilibrium of Forces - Trusses and Frames -Concepts	
		Session 3	Friction - Free Body Diagram for planar and ladder Friction - Concepts	
Day 3	17/08/2020	Session 4	Problem Discussion on Free Body Diagram - Trusses and Frames- Solving Previous Year GATE Questions	
Day 4	18/08/2020	Session 5	Kinematics of Particles - Rectilinear and Curvilinear- Concepts	
		Session 6	Kinematics - Projectile Motion - Concepts	
Day 5	19/08/2020	Session 7	Discussion on Concepts and Problems of Rectilinear, Curvilinear and Projectile Motion - Previous GATE Questions Discussion	
Day 6	20/08/2020	Session 8	Kinetics - D'Alembert's Principle and Work Energy Principle - Concepts	
		Session 9	Impulse Momentum Principle and Collision of bodies - Concepts	
Day 7	21/08/2020	Session 10	Discussion on Kinetics of Particles - Impulse Momentum - Collision - Work Energy - D'Alemberts - Problems Solving for GATE	
Day 8	22/08/2020	Session 11	Engineering Mathematics -Discussion on Linear Algebra	
Day 9	23/08/2020	Session 12		
Day 10	24/08/2020	Session 13	Dynamics of Rigid Bodies - Rotation ,Translation and General Plane Motion	
Day 11	25/08/2020	Session 14	Problem Discussion on Dynamics of Rigid Bodies - Solving Previous Year Gate Questions	

NOTE:

- **Recorded Online Video Course
- **Live Discussion Technical Classes
- **Live Mathematics / GA / Test Series

Day 12	26/08/2020	Session 15	Stress-Strain Relationship - Composite Bars - Problems	To implement the fundamental concepts of stress strain relationships for various loading conditions and hence to solve the previous year GATE Questions To apply the concept of engineering mechanics effectively to investigate the strength of materials To practically understand the testing and measurements of stress & strain using UTM and Strain Gauges-Rosettes
		Session 16	Elastic Constants - Relations & Poisson's Ratio - Problems	
Day 13	27/08/2020	Session 17	Discussion on Simple Stresses - Strains- Composite Bars - Elastic Constants - Relation - Solving all GATE Questions	
Day 14	28/08/2020	Session 18	Mohr's Circle - Plane Stress and Plane Strain Condition - Questions Discussion	
		Session 19	Thermal Stresses and Thin Cylinders - Questions and Discussion	
Day 16	29/08/2020	Session 20	Engineering Mathematics -Differential Calculus & Integral Calculus	
Day 17	30/08/2020	Session 21		
Day 18	31/08/2020	Session 22	Discussion on Mohr's Circle - Thermal Stresses - Thin Cylinders - Solving GATE Questions	
Day 19	1/9/2020	Session 23	Shear Force and Bending Moment Diagrams - Problems and Concepts	
		Session 24	Deflection of Beams - Concept of Double Integration Method - Mecaulay's Method	
Day 20	2/9/2020	Session 25	Discussion on SFD - BMD - Deflection - Formulae - Concepts Approach for Solving all GATE Questions	
Day 21	3/9/2020	Session 26	Bending and Shear Stresses in Beams - : Problems and Concepts	
		Session 27	Energy Methods and Discussion on its Applications	
Day 22	4/9/2020	Session 28	Discussion on Stresses in Beams - Bending -Shear -Stress Calculations - Solving Previous Year GATE Questions	
Day 23	5/9/2020	Session 29	Engineering Mathematics - Continuation of Differential Calculus Integral Calculus	
Day 24	6/9/2020	Session 30		
Day 25	7/9/2020	Session 31	Euler's Theory of Columns - Problems and Concepts	
		Session 32	Torsion of Circular Shafts - Series- Parallel - Concepts	
Day 26	8/9/2020	Session 33	Discussion on Columns- Shafts - Conceptual Approach for solving all GATE Questions	
Day 27	9/9/2020	Session 34	UTM and Impact Strength - Only the fundamental concepts of testing	
Day 28	10/9/2020	Session 35	A Quick Revision on Strength of Materials by solving varieties of Problems	

Day 29	11/9/2020	Session 36	Engineering Mathematics - Differential Equations
Day 30	12/9/2020	Session 37	
Day 31	13/9/2020	Session 38	
Day 32	14/09/2020	Session 39	Engineering Materials - Structure and Properties - constitution -Phase Diagram
		Session 40	Phase Diagram and its various regions - Concepts and discussions
Day 33	15/09/2020	Session 41	Discussion on Engineering Materials - Phase Diagram- GATE Questions and Analysis
Day 34	16/09/2021	Session 42	Various Heat Treatment Processes - Concepts and Discussions
		Session 43	Stress - Strain Diagram for Engineering Materials
Day 35	17/09/2020	Session 44	Discussion on Heat Treatment Processes and Stress Strain Diagram for Engg. Materials - Possibilities of Questions for GATE
Day 36	18/09/2022	Session 45	Metal Casting - Types - Design of Patterns - Moulds & Cores - Solidification and Cooling - Riser and Gating Design Concepts
		Session 46	Concept of Plastic Deformation and Yielding - Hot and Cold Working Fundamentals
Day 37	19/09/2020	Session 47	Engineering Mathematics - Vector Calculus
Day 38	20/09/2020	Session 48	
Day 39	21/09/2020	Session 49	Discussion on Metal Casting- Solidification and Cooling - Riser & Gating - Hot and Cold Working - Quick Revision for GATE
Day 40	22/09/2020	Session 50	Load Estimation for Bulk Metal Forming - Forging - Rolling - Extrusion - Drawing
		Session 51	Load Estimation for Sheet Metal Forming - Shearing - Deep Drawing- Bending
Day 41	23/09/2020	Session 52	Discussion on Bulk Metal forming and Sheet Metal Forming Process- Previous Year GATE Questions Discussion
Day 42	24/09/2020	Session 53	Introduction to Powder Metallurgy - Principle - Welding -Soldering - Brazing - Adhesive Bonding
		Session 54	Concept of Metal Joining Processes
Day 43	25/09/2020	Session 55	Discussion on Powder Metallurgy and Metal Joining Processes in Details for GATE Point of View and Solving previous Questions
Day 44	26/09/2020	Session 56	Engineering Mathematics - Complex Functions and Variables
Day 45	27/09/2020	Session 57	

To learn the process of metal casting, metal forming and metal joining processes and their principle operations in order to understand and answer the GATE questions with a procedural way.

Day 46	28/09/2020	Session 58	Introduction to Limits, Fits and Tolerances - Types - Linear and Angular Measurements - Comparators - Gauges - Interferometry	To learn and understand limits, fits and tolerances and some basic measurements and inspections
Day 47	29/09/2020	Session 59	Form and Finish Measurements - Methods for Testing - Alignment -Tolerance Analysis - Concepts and Discussions	
Day 48	30/09/2020	Session 60	A conceptual approach to CAD/CAM and their integration tools.	
Day 49	1/10/2020	Session 61	Thermodynamic System - Properties - Zeroth - First - Laws - Closed System - Open System	To focus on thermodynamic closed system and open system and hence to apply SFEE on vaious TD systems - To understand the concept of entropy with its significance - To solve all GATE questions on thermal engineering and its applications.
		Session 62	Various Thermodynamic Processes - Calculation of work and heat supplied	
Day 50	2/10/2020	Session 63	Discussion on First Law - SFEE- Applications - Solving Previous Year GATE questions and Concepts Revision	
Day 51	3/10/2020	Session 64	Engineering Mathematics - Probability and Statistics	
Day 52	4/10/2020	Session 65		
Day 53	5/10/2020	Session 66	Second Law of Thermodynamics - Applications - Concepts and Problems Discussions	
		Session 67	Concept of Availability and Irreverisbility	
Day 54	6/10/2020	Session 68	Discussion on Second Law- Entropy Concepts- Availability - Analysing the Previous Year GATE Questions	
Day 55	7/10/2020	Session 69	Properties of Pure Substances - Vairous TD charts and Relations	
		Session 70	Air Compressors - Work Done - multi stage - concepts	
Day 56	8/10/2020	Session 71	Discussion on Pure Substances- TD Relations and Air Compressor Problems along with Previous GATE Questions	
Day 57	9/10/2020	Session 72	Vapour Power Cycles and calculations - Concept and Problem Discussions	
		Session 73	Gas Power Cycles - Comparison of various cycles- Otto Diesel Dual Cycles	
		Session 74	Concept of Reheat and Regeneration in Gas Power and Vapour Power cycles	
Day 58	10/10/2020	Session 75	Engineering Mathematics - Numerical Methods	
Day 59	11/10/2020	Session 76		
Day 60	12/10/2020	Session 77	Detailed Discussion on GAS POWER and VAPOUR POWER cycles - Sovling GATE questions - Logical and Short Approach	
Day 61	13/10/2020	Session 78	Refrigeration - Cycles - Vapour Compression - Gas Refriegeation - Concepts and Applications	
Day 62	14/10/2020	Session 79	Properties of Moist Air - Psychrometry Chart- Processes - Air Conditioning Processes	
Day 63	15/10/2020	Session 80	Detailed Discussion on R&AC with conceptual approach to solve previous year GATE questions	
Day 64	16/10/2020	Session 81	A Quick Revision on Thermodynamics & Thermal Engineering by solving typical problems with related concepts	
Day 65	17/10/2020	Session 82	A Quick Revision and Discussion on Linear Algebra and Complex Functions	
Day 66	18/10/2020	Session 83		

Day 67	19/10/2020	Session 84	Planar Mechanisms - Fundamentals- Inversions - Concept Discussion	To understand the real time applications of simple mechanisms and to proceed with dynamic analysis of various linkages like CAMS, Gears, Clutches, Brakes, Springs etc.. To apply the concepts of machine theory and to solve GATE questions numerically and conceptually
		Session 85	DOF - Velocity and Acceleration - Questions and Discussion	
Day 68	20/10/2020	Session 86	Discussion on Simple Mechanisms- Inversions- Velocity and Accelerations - GATE Questions - Conceptual Approach	
Day 69	21/10/2021	Session 87	Dynamic Analysis of CAMS - Concept Discussion	
		Session 88	Dynamic Analysis of Gears and Gear Trains - Problems and Concepts	
Day 70	22/10/2021	Session 89	Discussions on CAMS and Gear Trains - Solving all Previous GATE Questions and Analysis	
Day 71	23/10/2021	Session 90	Analysis of Flywheels and Governors - Problems and Concepts	
Day 72	24/10/2020	Session 91	A Quick Revision on Differential and Integral Calculus	
Day 73	25/10/2020	Session 92		
Day 74	26/10/2020	Session 93	Discussion on Governors and Flywheel	
Day 75	27/10/2020	Session 94	Rotating and Reciprocating Masses - Balancing Concepts and Problems	
Day 76	28/10/2020	Session 95	Discussion on Rotating and Reciprocating Masses - Balancing - Problem Solving and Conceptual Approach	
Day 77	29/10/2020	Session 96	Gyroscope - Concept & Springs (Depends on Syllabus)	
		Session 97	Clutches and Brakes (Depends on Syllabus)	
Day 78	30/10/2020	Session 98	Discussion on the concept of Gyroscope and Mechanics of Clutches and Brakes - Solving the GATE Questions	
Day 79	31/10/2020	Session 99	A Quick Revision on Vector Calculus and Numerical Methods	
Day 80	1/11/2020	Session 100		

Day 81	2/11/2020	Session 101	Introduction to Forecasting models - Aggregate production planning	To conceptually approach the Production Planning , Scheduling and Inventory control while solving the GATE questions.
		Session 102	Scheduling - Concepts and Applications - Problems	
Day 82	3/11/2020	Session 103	Discussion on Forecasting and Scheduling - GATE Questions Solution and Analysis	
Day 83	4/11/2020	Session 104	MRP - Material Requirements Planning and a Quick Revision on PPC	
Day 84	5/11/2020	Session 105	Inventory Control - Deterministic and Probabilistic Deterministic models - safety stock inventory control systems	
Day 85	6/11/2020	Session 106	Revision and Discussing the GATE questions on Inventory Control	
Day 86	7/11/2020	Session 107	Online Test Series 1 + General Aptitude	
Day 87	8/11/2020	Session 108		
Day 88	9/11/2020	Session 109	Linear Programming - Concepts and Approach	To analyse various models used in operations and research and hence to attaing the capability to solve logical GATE Questions on "OR"
Day 89	10/11/2020	Session 110	Simplex and Doublex Methods - Concepts and Approach	
Day 90	11/11/2020	Session 111	Discussion and Revision on LP and Cocepts of Simplex and Doublex Methods - Previous Year GATE Questions Discussion	
Day 91	12/11/2020	Session 112	Transportation - Assignment - Problems and Discussions	
		Session 113	Simple Queing Models - PERT and CPM - Concepts - Approach and Discussions	
Day 92	13/11/2020	Session 114	Discussion on Queuing - Transportation- Assignment Problems - Analysis of Previous Year GATE questions and solutions	
Day 93	14/11/2020	Session 115	Online Test Series 2	
Day 94	15/11/2020	Session 116		

Day 95	16/11/2020	Session 117	Free Vibrations- types - Fundamentals -Single Degree of Freedom	To understand the concept of Vibrations with SOF and to implement it for solving GATE questions
		Session 118	Free Damped Vibrations - Concepts and discussion with sample problems	
Day 96	17/11/2020	Session 119	Discussion on Free - Damped Vibrations and Problem Solving on typical cases - GATE Questions and Discussions	
Day 97	18/11/2020	Session 120	Forced Vibrations - Concepts	
Day 98	19/11/2020	Session 121	Discussion - A Quick Revision on Vibrations - Sovling All Previous Year GATE Questions	
Day 99	20/11/2020	Session 122	Fluid Properties - Fluid Statics	To understand the fundamentals of Fluid Mechanics - Application of Bernoulli's and Euler's Equations to various fluid systems - Solving GATE questions - Analysing the governing equations of fluid dynamics. Applications of basic equations and head loss calculations for turbo machinery problems.
Day 100	21/11/2020	Session 123	Online Test Series 3 + General Aptitude	
Day 101	22/11/2020	Session 124		
Day 102	23/11/2020	Session 125	Manometry and Pressure Measurements	
Day 103	24/11/2020	Session 126	Buoyancy Forces- Submerged-Floating Bodies - Concepts and Discussions	
Day 104	25/11/2020	Session 127	Discussion on Fluid Statics and related problems with GATE approach - Solving previous year questions	
Day 105	26/11/2020	Session 128	Mass- Momentum - Energy Conservations - Basic Governing Equations	
		Session 129	Kinematics of Fluid - Accelerations	
		Session 130	Bernoulli's Equations	
Day 106	27/11/2020	Session 131	Discussion on Kinematics of Flow- Applications of Bernoulli's Equations - Solving Related GATE Questions	
Day 107	28/11/2020	Session 132	Online Test Series 4 + General Aptitude	
Day 108	29/11/2020	Session 133		
Day 109	30/11/2020	Session 134	Dimensional Analysis - Non-Dimensional Numbers and Significance - Concepts	
		Session 135	Viscous Flow- Boundary Layer Theroy - Concepts and Problems	
Day 110	1/12/2020	Session 136	Discussion on Model and Prototype- Comparison - Non Dimensional Numbers - BL-Theory - Analysis of GATE questions	
Day 111	2/12/2020	Session 137	Flow Through Pipes - Head Losses in Pipes - Bends and Fittings - Concepts and Problems	
		Session 138	Turbomachinery - Impulse and Reaction Turbines - Formulae - Velocity Triangles	
Day 112	3/12/2020	Session 139	Discussion on Losses in Pipes - Turbomachinery Problems - GATE Approach & Formulae Discussion	

Day 113	4/12/2020	Session 140	Modes of Heat Transfer - Basic Governing Equations- 1D heat conduction - Thermal Resistance	To conceptually approach the application of heat transfer with various modes and their combinations for different engineering problems. To analyse the heat transfer with steady and unsteady approach using previous year questions.
		Session 141	Composite Wall - Composite Cylinders - 1D Heat Transfer	
Day 114	5/12/2020	Session 142	Discussion on Composite Wall - Cylinder -Spheres- Heat Generation - Critical Thickness - GATE questions and Solutions	
Day 115	6/12/2020	Session 143	Online Test Series 5 + General Aptitude	
Day 116	7/12/2020	Session 144	Fins and Boundary Conditions- Problems and Concept Discussion	
		Session 145	Unsteady Heat Conduction - Lumped Parametric Analysis - Heisler's Charts	
Day 117	8/12/2020	Session 146	Discussion on Transient Heat Conduction and Fins Extended Surfaces - Problem Solving and Concepts for GATE	
Day 118	9/12/2020	Session 147	Thermal and Hydrodynamic Boundary Layer comparison	
		Session 148	Non Dimensional Numbers for Free and Forced Convection	
Day 119	10/12/2020	Session 149	Discussion on Hydrodynamic and Thermal BL - Non Dimensional Numbers - GATE Questions and Problem discussion	
Day 120	11/12/2020	Session 150	Flow over flat plate and flow through pipes - Laminar & Turbulent Correlation for heat transfer	
		Session 151	Heat Exchanger Performance using LMTD and NTU method - Anaysis and Discusssions	
Day 121	12/12/2020	Session 152	Online Test Series 6 + General Aptitude	
Day 122	13/12/2020	Session 153		
Day 123	14/12/2020	Session 154	Discussion on Convection Correlation and Heat Exchangers - Problems and Concepts - Related GATE Questions and Solutions	
Day 124	15/12/2020	Session 155	Radiation- Basic Laws- Stephen Boltzman Law - Kirchoff's Law - Wien's Displacement Law	
		Session 156	Concept of Black Body- Gray body Radiation - View Factor- Configuration Factor - Concepts	
Day 125	16/12/2020	Session 157	Discussion on Radiation Fundamentals - View Factor	
Day 126	17/12/2020	Session 158	Shape Factor Algebra and Problems - Discusssions	
		Session 159	Radiation - Network Analysis - Radiation Shields - Problems and Concepts Discussions	
Day 127	18/12/2020	Session 160	Discussion on Radiation Shields - Electrical Analogy - Formulae Based Questions and GATE Question Analysis	

Day 128	19/12/2020	Session 161	Failure Types- Design against Static Loading-A conceptual Approach	To learn the elementary design of all joints and transmission elements. To analysis the design procedure and apply them to solve GATE questions with fundamental concepts from SOM, TOM and E-Mech.
Day 129	20/12/2020	Session 162	Design Against Dynamic Loading - Various Criteria of Failures - Fatigue Failure	
Day 130	21/12/2020	Session 163	Discussion on Dynamic and Static Loading of Components - Solving GATE Questions -	
Day 130	22/12/2020	Session 164	Theories of Failures - Concepts and Questions Discussions	
		Session 165	Bolted and Rivetted Joints - Design under Static Loading - Problems	
		Session 166	Welded Joints - Design and Analysis	
		Session 167	Discussion on Joints - Under various Loading Conditions - GATE Questions Analysis and Solutions	
Day 131	22/12/2020	Session 168	Design of Brakes - Catches - Concepts of Uniform Wear and Pressure	
		Session 169	Design of Springs - Fundamental Design Concepts	
Day 132	23/12/2020	Session 170	Discussion on Formulae and Concepts of Clutches , Brakes and Springs - Solving Previous Year GATE Questions	
Day 133	24/12/2020	Session 171	Quick Revision of Machine Design Concepts and Problem Solving for GATE	

Previous GATE Question Paper Set A Complete Analysis

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Subject Wise Analysis and Weightage

Year Wise Marks Distribution Analysis

Year Wise Organising Institutes of GATE Exam

Sl. No	Institutes	Organised Year
1	IIT Madras	1985, 1991, 1997, 2003, 2011, 2019
2	IIT Delhi	1986, 1992, 1998, 2004, 2012, 2020
3	IIT Bombay	1987, 1993, 1999, 2005, 2013, 2021
4	IIT Kharagpur	1988, 1994, 2000, 2006, 2014, 2022
5	IIT Kanpur	1989, 1995, 2001, 2007, 2015
6	IISc Bangalore	1984, 1990, 1996, 2002, 2008, 2016
7	IIT Roorkee	2009, 2017
8	IIT Guwahati	2010, 2018

IIT Bombay - Year Wise Important Topic Analysis based on Questions Asked					
Sl. No	Subjects				
		2013	2005	1999	1993
1	Engineering Mechanics	Dynamics	FBD, Friction and Impulse Momentum	Kinematics	
2	Strength of Materials	Simple Stresses and Strains, SFD & BMD, Strain Energy Method	Mohr's Circle, Thermal Stresses, Bending Stress, BMD,Beam Deflection, Shafts in Series,	Bending Moment & Pressure Vessels	Mohr's Circle Radius, Strain Energy due to Bending
3	Theory of Machines	Simple Mechanisms, Gear Trains, Flywheels, Vibrations	4 Bar Mechanisms, Balancing, CAMs, DOF, Damped vibrations	Planar Mechanisms, Acceleration in Mechanisms, Gear Train, Natural Vibration Frequency	DOF, Planar Mechanisms, CAMs, Instantaneous Centre, Natural Frequency Calculations
4	Machine Desing	Static Loading, Dynamic Loading, Rivetted Joints	Band Brakes, Springs & Bearings	Bolted Joints, Theroies of Failures, Belts, Static and Dynamic Loading	Shafts and Soderberg equations
5	Fluid Mechanics	Hydrostatic Forces, Fluid Statics and Dynamics, Flow through pipes	Free Vortex Flow, Velocity Triangle and Manometers	Velocity Potential, Vorticity, Surface Tension, Viscosity, Acceleration of Fluid Particles, Fluid Dynamics, Comparison of Model and Prototype in Pumps	Cavitaion and Specific Speed
6	Heat Transfer	Conduction with Heat Generation, Unsteady heat transfer, Convection (Bulk Mean Temp), Radiation	Composite Slabs, Radiation Laws, View Factors and LMTD	Critical Radius, Forced Convection, Heat Exchanger	Critical Thickness and Radiation
7	Thermo & Applications	Fist Law-Open system, Available Energy, Psychrometry Fundamentals, Brayton Cycle	TD Processes, Non Flow Work, Air Compressors, Psychrometric processes, Both Refrigeration Cycles, Air Std Cycles, Pure Substances	Isolated System, Air compressors - Vol efficiency, Vapour Compression, Air Std Cycles, Carnot and Brayton Cycles, Psychrometric Process, Mach Number, Brake Thermal Efficiency, Gas Turbine Calculations	Reheating in Gas Turbine, Knocking in SI engine, Refrigerant Properties, Evaporation
8	Manufacturing	Casting, Metal Joining, Metal Forming, Metrology & Inspection, Machine tool operations	Welding (Spot), Machining, Casting, Tool Signature, Fits & Tolerances, Non-Conventional Machining, NC codes	Casting, Drawing, EDM, Fixtures, Welding, Tool life, Othogonal Cutting- Shear & Friction Angle	Welding, Fits , Ultrasonic Machining, Milling Cutter Speed, Casting, NC coding
9	Industrial Engineering	Operations and Research, Queueing, Forecasting	LPP, Transportation, PERT, Reorder Level, Queing Theory, Forecasting	LPP, Inventory, Queuing,	Time Study
10	General Aptitude	Verbal Ability & Numerical Ability	No Questions from GA		
11	Engineering Maths	All Chapters Except Transforms	Stokes Theorem, Conditional Probability, Limits, Calculus, Matrix, NM, Line Integral, Diffn, NR method, PDE	Matrix, Laplace, NM, Integral, PDE, NM	

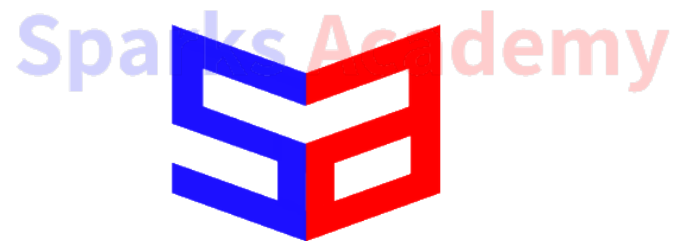
An Overall Analysis of All Question Papers - 2014 to 2020

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IIT Bombay - Last Two Sets Average % Distribution

Subject	2005	2013
Engineering Mechanics	7	3
Strength of Materials	9	5
Theory of Machines	9	8
Machine Desing	3	7
Fluid Mechanics	7	6
Heat Transfer	7	10
Thermo & Applications	16	10
Manufacturing	17	15
Industrial Engineering	8	6
General Aptitude	0	15
Engineering Maths	17	15

“Thank You!”



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