

# Reference Books for Gate Aerospace



# Reference Books for GATE Aerospace Engineering

### **Engineering Mathematics:**

Advanced Engineering Mathematics - Erwin kregyszig
Advanced Engineering Mathematics - HK Dass
Higher engineering mathematics by Grewal B. S.

# Flight Mechanics:

Introduction to Flight by John Anderson
flight stability and automatic control (Robert Nelson)
Airplane Performance, Stability and Control (Courtland D.
Perkins)
Aerodynamics by LJ Clancy

### **Aerodynamics:**

Fundamentals of Aerodynamics by John Anderson
Aerodynamics by LJ Clancy
Aerodynamics for Engineering Students by E. L. Houghton, N. B.
Carruthers
Fluid Mechanics by Frank M. White
Gas Dynamics by Rathakrishnan E.

### Structures:

Aircraft Structures for Engineering Students by T.H.G. Megson Mechanics of Aircraft Structures by C. T. Sun Mechanics of Materials by M. G. James and S. P. Timoshenko Mechanical Vibrations by Singiresu S. Rao Mechanical Vibrations by vp Singh

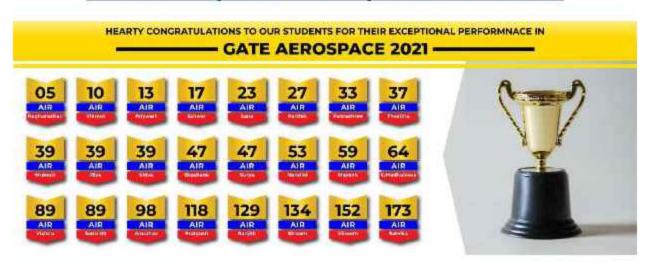
### **Propulsion:**

Gas Turbine Theory by H. Cohen, G.F.C. Rogers
Mechanics and Thermodynamics of Propulsion by Philip Hill,
Carl Peterson
Aircraft Propulsion and Gas Turbine Engines by Ahmed F. ElSayed
Heat Transfer by J.P.Holman

# **Space Dynamics:**

Orbital Mechanics for Engineering Students by Howard D. Curtis

### **GATE Aerospace Academy Previous Results**









Hearty congratulations to our Classroom Program students from Rajasthan Technical University Kota for their extraordinary performance in Gate Aerospace 2021



**AIR-10** 

VIKRANT VASHISTHA



**AIR-39** 

MUKESH



**AIR-59** 

MAYANK



**AIR-98** 

JOSHI

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Hearty congratulations to our Classroom Program student from
Karunya Institute of Technology and Sciences for his
extraordinary performance in
Gate Aerospace 2021



AIR-13

PRIYWART KHATRI

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Hearty congratulations to our Classroom Program students from Institute of Aeronautical Engineering college for their extraordinary performance in Gate Aerospace 2021



AIR-39
M.SHIVA TEJA
REDDY



AIR-64



P.VINEETH

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Hearty congratulations to our Classroom Program students for their extraordinary performance in

Gate Aerospace 2021



M.SURYA REVA UNIVERSITY BANGALORE



RIVA PATEL
APOLLO INSTITUTE OF
ENGINEERING



AIR-47
SHASHANK KUMAR
AMITY UNIVERSITY
NOIDA

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### Hearty congratulations to our Classroom Program students for their extraordinary performance in

**Gate Aerospace 2021** 



AIR-53

NANDINI JAIN SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI



AIK-03

M.VISHNU TEJA MANIPAL INSTITUTE OF TECHNOLOGY, MANIPAL



AIR-89

SAMRIDH PATIAL
UNIVERSITY OF
PETROLEUM AND ENERGY
STUDIES, DEHRADUN

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HEARTY
CONGRATULATIONS TO
OUR STUDENT
K SWARNASHEE FOR
SELECTING AS A JUNIOR
RESEARCH FELLOWSHIP
AT DRDO



**K.Swarnashree** 

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# **Our Gallery**





# **GATE AEROSPACE 2022**

- TOPIC-WISE TESTS 87
- SUBJECT WISE TESTS 19
- MULTIPLE SUBJECT TESTS -10
- GRAND TESTS 15





# **GATE AEROSPACE PYQ'S**

- TOPIC-WISE TESTS -45
- SUBJECT WISE TESTS 33
- GRAND TESTS 15



**TOTAL TESTS 224** 





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# **GATE AEROSPACE 2022**

- TOPIC-WISE TESTS 87
- SUBJECT WISE TESTS 19
- MULTIPLE SUBJECT TESTS -10
- GRAND TESTS 15





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- TOPIC-WISE TESTS -45
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**TOTAL TESTS 224** 

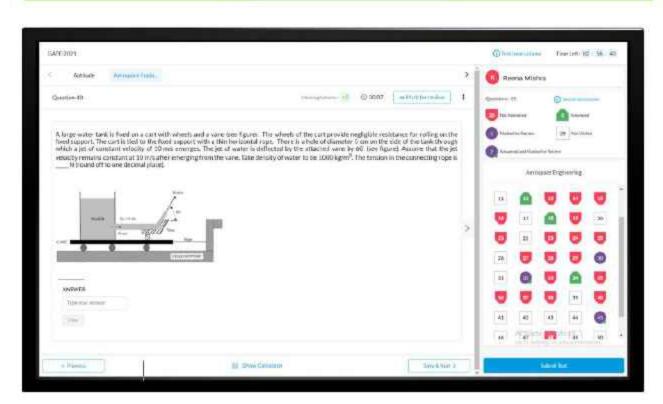
### **GATE Aerospace Academy Test series package**

- Topic-wise Test
- Subject-wise Test
- > Full syllabus Test
- GATE previous Year Test
- > Total 224 Test

### Content:

- (1) Interface of Test window
- (2) App download & laptop access
- (3) Features of Test interface/results
- (4) List of all Tests
- (5) Achievements
- (6) Class room Program

### (1) Interface of Test window

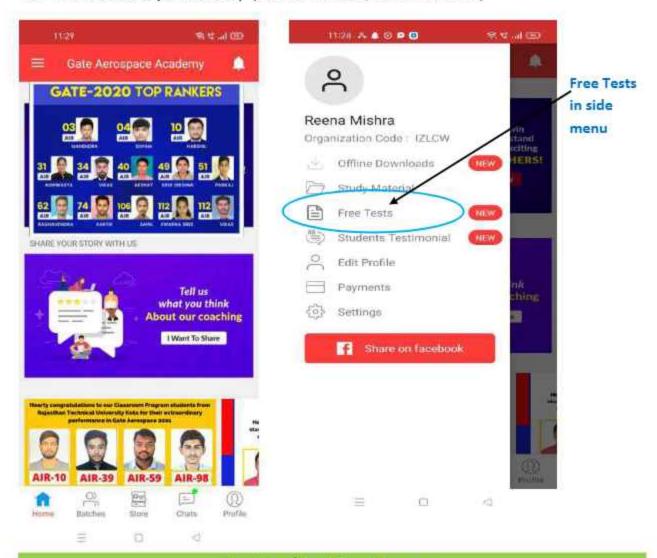


### (2) App Download

For Android, type **Gate Aerospace Academy** in google play store and get it.

https://play.google.com/store/apps/details?id=co.lynde.izlcw

For iOS contact personally (9000373757,7503511159)



### Laptop/desktop Access:

Go to <a href="https://www.gateaerospaceacademy.com/">https://www.gateaerospaceacademy.com/</a> and click on online classes on top and login

# (3) Features of Test interface/results

Multiple choice question (MCQ)	Multiple (1	select question  VISQ)	Numerical type question (NAT)
⊕ Time spent on particular question		☐ Results by Mail and SMS to students	
Grade and Percentile of students			
⊕ Batch Rank and Institute Rank of students		Showing different level to questions (easy, medium, hard)	
		Section-wise marks and Total marks in form of bar/chart	
⊕ Absolutely lag free and smooth working		☐ Highest marks and grade	
		⊕ Average marks and average grade of complete batch	

# (4) List of all Tests

Subject	Test Name	
	Aerodynamics	
	Introduction basic Test level-1	
	Introduction basic Test level-2	
	Thermodynamics-basic	
Topic-wise Test	1 D flow	
	Normal shock	
	Oblique shock and Expansion fan	
	Rayleigh and Fanno Flow	
	Complete Gas dynamics	
	Properties of Fluid	

	Flow Kinematics
	Potential Flow
	Viscous Flow
	Boundary layer
	Non-dimensional Analysis
	Airfoil Nomenclature
	Core Aerodynamics
	Complete Aerodynamics test-1
	Complete Aerodynamics test-2
Subject-wise Test	Complete Aerodynamics test-3
	Gas dynamics & Fluid Mechanics-1
Multiple subject Test	Gas dynamics & Fluid Mechanics-2
	<u>.</u>
	Ctrusturos
	Structures
	Stress-strain Test-1
	Stress-strain Test-1 Stress-strain Test-2
	Stress-strain Test-1 Stress-strain Test-2
	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram
Tonic wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid
Topic-wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection
Topic-wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection Column
Topic-wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection Column Torsion
Topic-wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection Column Torsion Failure Theory
Topic-wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection Column Torsion Failure Theory Vibrations test-1
Topic-wise Test  Subject-wise Test	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection Column Torsion Failure Theory Vibrations test-1 Vibrations test-2
	Stress-strain Test-1 Stress-strain Test-2 Shear Force & Bending Moment diagram Moment of inertia and Centroid Deflection Column Torsion Failure Theory Vibrations test-1 Vibrations test-2 Structures -1

	Strength of material & Vibrations-2
	Mathematics
	Linear Algebra Test-1
	Linear Algebra Test-2
	Linear Algebra Test-3
	Linear Algebra Test-4
	Linear Algebra Test-5
	Differential Equations Test-1
	Differential Equations Test-2
	Differential Equations Test-3
	Laplace Transform Test-1
	Laplace Transform Test-2
Topic-wise Test	Numerical Methods Test-1
	Numerical Methods Test-2
	Calculus Test-1
	Calculus Test-2
	Calculus Test-3
	Probability Test-1
	Probability Test-2
	Complex numbers
	Mathematics Test-1
Subject-wise Test	Mathematics Test-2
	Mathematics Test-3
Multiple subject Test	Mathematics & Aptitude Test-1
	Mathematics & Aptitude Test-2

(	General Aptitude	
	Percentage Test-1	
	Percentage Test-2	
	Averages Test-1	
	Averages Test-2	
	SI @ CI Test-1	
	SI @ CI Test-2	
	Time and work Test-1	
	Time and work Test-2	
	Partnership Test-1	
	Partnership Test-2	
	Time and Distance Test-1	
	Time and Distance Test-2	
<b>Topic-wise Test</b>	Mensuration Test-1	
	Mensuration Test-2	
	Ratio and Proportion Test-1	
	Ratio and Proportion Test-2	
	Profit and Loss Test-1	
	Profit and Loss Test-2	
	Number systems Test-1	
	Number systems Test-2	
	Data Interpretation Test-1	
	Data Interpretation Test-2	
	Veen Diagrams Test-1	
	Veen Diagrams Test-2	
	Allegations and mixtures Test-1	
	Allegations and mixtures Test-2	
	General Aptitude Test-1	
Subject-wise Test	General Aptitude Test-2	

	General Aptitude Test-3
	Propulsion
	Thermodynamics-1
	Thermodynamics-2
	Compressor -1
<b>Topic-wise Test</b>	Compressor -2
	Turbine
	Combustion
	Jet engine
Subject-wise Test	Propulsion-1
	Propulsion-2
Multiple subject Test	Thermodynamics & Gas dynamics-1
	Thermodynamics & Gas dynamics-1
Fl	light Mechanics
	Basics of Flight mechanics Test-1
	Basics of Flight mechanics Test-2
	Aircraft Performance Test-1
<b>Topic-wise Test</b>	
ropic-wise rest	Aircraft Performance Test-2
ropic-wise rest	Stability and control Test-1
ropic-wise rest	
Topic-wise Test	Stability and control Test-1
Subject-wise Test	Stability and control Test-1 Stability and control Test-2
֥	Stability and control Test-1 Stability and control Test-2 Flight mechanics Test-1
֥	Stability and control Test-1 Stability and control Test-2 Flight mechanics Test-1 Flight mechanics Test-2

S	pace Mechanics
Topic-wise Test	Basics of Space mechanics Test-1
	Basics of Space mechanics Test-2
	Core space mechanics Test-1
	Core space mechanics Test-2
	Space mechanics Test-1
ubject-wise Test	Space mechanics Test-2
Full	syllabus Grand Test
	Aerospace Engineering -1
	Aerospace Engineering -2
	Aerospace Engineering -3
	Aerospace Engineering -4
	Aerospace Engineering -5
	Aerospace Engineering -6
	Aerospace Engineering -7
	Aerospace Engineering -8
Full syllabus	Aerospace Engineering -9
or processors and the second	Aerospace Engineering -10
Grand Test	Aerospace Engineering -11
	Aerospace Engineering -12
	Aerospace Engineering -13
	Aerospace Engineering -14
	Aerospace Engineering -15

# **GATE Previous Year Papers**

Subject	Test Name	
	Propulsion	
	Axial Flow compressor	
	Centrifugal Compressor	
	Combustion	
	Turbine	
	Jet Propulsion Test-1	
Dropulsion	Jet Propulsion Test-2	
Propulsion	Rocket Propulsion Test-1	
	Rocket Propulsion Test-2	
	Complete Propulsion Test-1	
	Complete Propulsion Test-2	
	Complete Propulsion Test-3	
	Complete Propulsion Test-4	
	Complete Propulsion Test-5	
	Aerodynamics	
	Gas dynamics and Thermodynamics Test-1	
	Gas dynamics and Thermodynamics Test-2	
	Fluid mechanics Test-1	
	Fluid mechanics test-2	
	Linearized Theory	
	Thin Airfoil/Finite wing Theory Test-1	

Aerodynamics	Thin Airfoil/Finite wing Theory Test-2
	Airfoil Nomenclature & High Lift Devices
	Complete Aerodynamics Test-1
	Complete Aerodynamics Test-2
	Complete Aerodynamics Test-3
	Complete Aerodynamics Test-4
	Complete Aerodynamics Test-5
	Complete Aerodynamics Test-6
	Structures
	Stress-strain (SOM)
	Buckling
	Torsion
	Failure Theory
	SFD-BMD & Deflection
	Vibrations Test-1
	Vibrations Test-2
	Aircraft structures-stress strain Test-1
	Aircraft structures-stress strain Test-2
C	Shear flow& shear center & boom
Structures	Complete structures Test-1
	Complete structures Test-2
	Complete structures Test-3
	Complete structures Test-4
	Complete structures Test-5
	Complete structures Test-6
	Complete structures Test-7
	General Aptitude
	General Aptitude Test-1

	Company Analysis To 1.2
General Aptitude	General Aptitude Test-2
	General Aptitude Test-3
1	General Aptitude Test-4
	Mathematics
	Linear Algebra
	Differential Equations
	Calculus-1
	Calculus-2
Mathematics	Laplace Transforms
mamomatics	Numerical Methods
	Complete Mathematics-1
	Complete Mathematics-2
	Complete Mathematics-3
	Complete Mathematics-4
	Complete Mathematics-5
	Flight Mechanics
	Basic Flight Mechanics and Performance-1
	Basic Flight Mechanics and Performance-2
	Basic Flight Mechanics and Performance-3
	Basic Flight Mechanics and Performance-4
	Basic Flight Mechanics and Performance-5
Flight Mechanics	Basic Flight Mechanics and Performance-6
	Aircraft Stability-1
	Aircraft Stability-2
	Aircraft Stability-3
ingile wiechanics	Aircraft Stability-4
	Aircraft Stability-5
	Aircraft Stability-6
	Complete Flight Mechanics-1