

***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. El-
Sayed

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 STUDENTS FOR THEIR EXCEPTIONAL PERFORMANCE IN
GATE AEROSPACE 2021

05 AIR Reshanathan	10 AIR Vikrant	13 AIR Priyanshi	17 AIR Kishwar	23 AIR Sana	27 AIR Karthik	33 AIR Ratnasree	37 AIR Thositha
39 AIR Mukesh	39 AIR Riya	39 AIR Shiva	47 AIR Shashank	47 AIR Surya	53 AIR Nandini	59 AIR Mayank	64 AIR K.Madhulesa
89 AIR Vishnu	89 AIR Samridh	98 AIR Anubhav	118 AIR Pratyush	129 AIR Ranjith	134 AIR Shivam	152 AIR Vineeth	173 AIR Savika



GATE AEROSPACE ACADEMY
DEDICATED TO EXCELLENCE

HEARTY CONGRATULATIONS TO OUR STUDENTS FOR THEIR EXCEPTIONAL PERFORMANCE IN
GATE AEROSPACE 2020

03 AIR MAHENDRA OEHLOT Gate Aerospace Academy	04 AIR SHYAM KUMAR Gate Aerospace Academy	10 AIR HARSHIL GOHEL Gate Aerospace Academy	31 AIR AISHWARYA Gate Aerospace Academy
34 AIR VIKAS Gate Aerospace Academy	40 AIR AKSHAY Gate Aerospace Academy	49 AIR SREE LEKSHMI Gate Aerospace Academy	51 AIR PANKAJ Gate Aerospace Academy
62 AIR RAGHVENDRA Gate Aerospace Academy	74 AIR KARTIK Gate Aerospace Academy	and many more...	

02 AIR	31 AIR	36 AIR	51 AIR	75 AIR	81 AIR
95 AIR	100 AIR	128 AIR	138 AIR	151 AIR	155 AIR
168 AIR	175 AIR	198 AIR	230 AIR	242 AIR	
	245 AIR	247 AIR	260 AIR		



Gate AeroSpace 2019 Results



GATE AEROSPACE ACADEMY
Dedicated to Excellence



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
GOKLANI**



AIR-59

**MAYANK
AGARWAL**



AIR-98

**ANUBHAV
JOSHI**

www.gateaerospaceacademy.com



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

www.gateaerospaceacademy.com



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

K.MADHULAALASA



AIR-152

P.VINEETH

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AIR-47

**M.SURYA
REVA UNIVERSITY
BANGALORE**



AIR-39

**RIYA PATEL
APOLLO INSTITUTE OF
ENGINEERING**





AIR-47

**SHASHANK KUMAR
AMITY UNIVERSITY
NOIDA**

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for their extraordinary performance in
Gate Aerospace 2021**

		
AIR-53	AIR-89	AIR-89
NANDINI JAIN SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI	M.VISHNU TEJA MANIPAL INSTITUTE OF TECHNOLOGY, MANIPAL	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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GATE-2020 TOP RANKERS



MAHENDRA



SHYAM



HARSHIL



AISHWARYA



VIKAS



AKSHAY



SREE LEKSHMI



PANKAJ



RAGHAVENDRA



KARTIK



SAHIL



SWARNA SREE



VIKAS

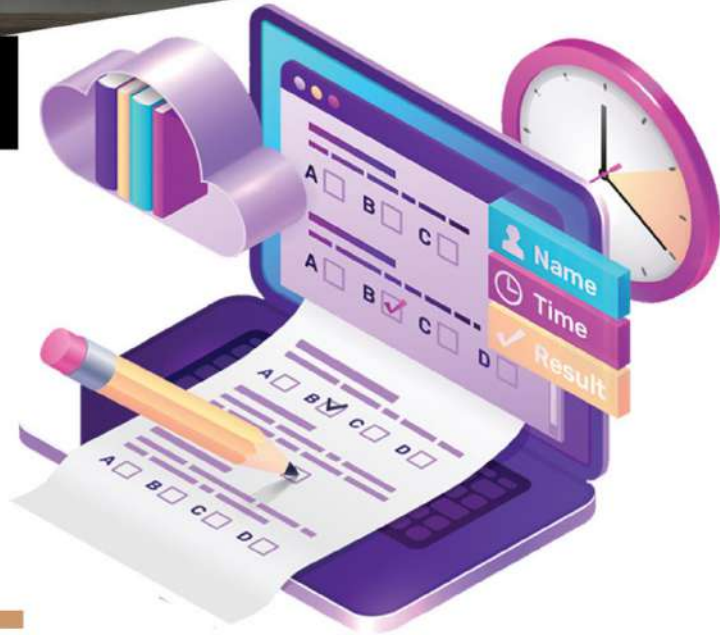
Our Gallery



GATE AEROSPACE 2022 TEST SERIES

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





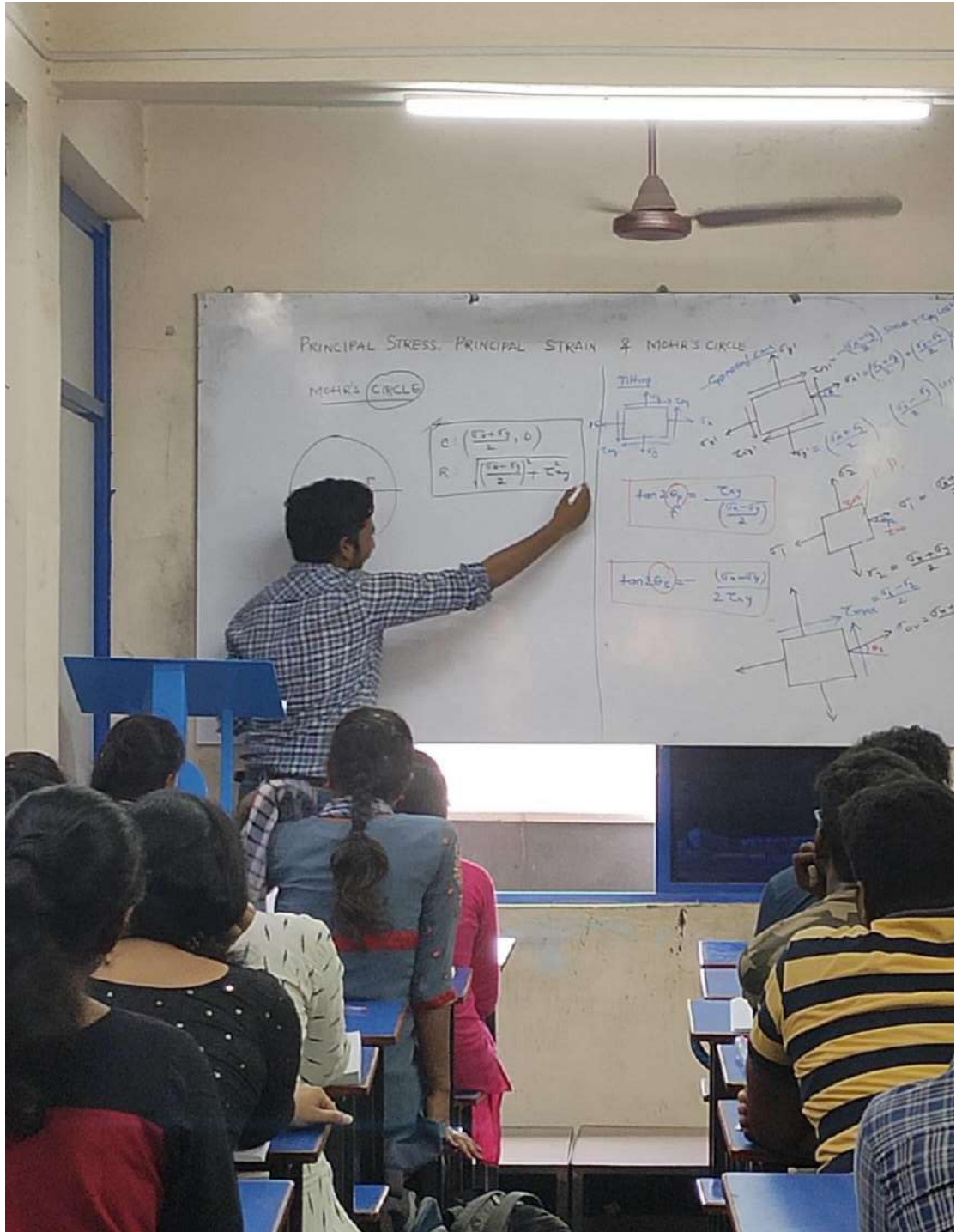
















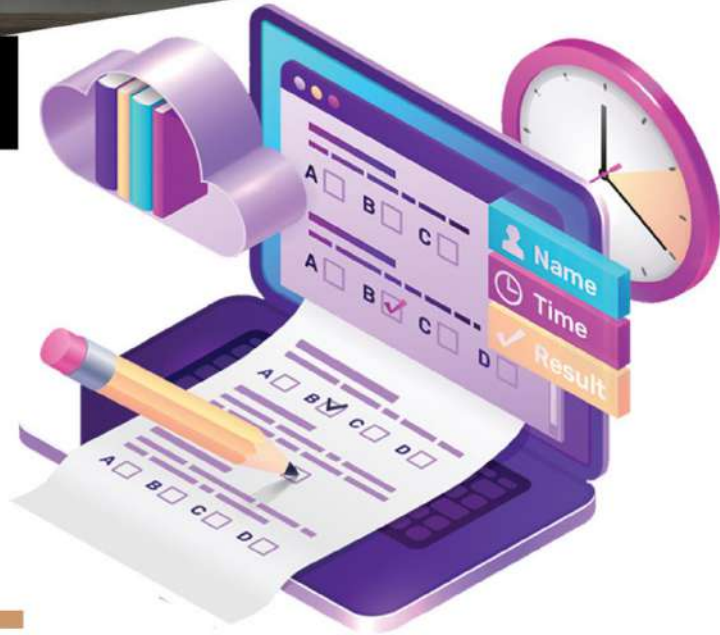




GATE AEROSPACE 2022 TEST SERIES

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- **TOPIC-WISE TESTS - 87**
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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

The screenshot displays the GATE 2021 test interface. The main content area shows a physics problem (Question-40) involving a water tank on a cart with a vane. The problem text is as follows:

A large water tank is fixed on a cart with wheels and a vane (see figure). The wheels of the cart provide negligible resistance for rolling on the fixed support. The cart is tied to the fixed support with a thin horizontal rope. There is a hole of diameter 5 cm on the side of the tank through which a jet of constant velocity of 10 m/s emerges. The jet of water is deflected by the attached vane by 60° (see figure). Assume that the jet velocity remains constant at 10 m/s after emerging from the vane. Take density of water to be 1000 kg/m^3 . The tension in the connecting rope is ___ N (round off to one decimal place).

The diagram shows a water tank on a cart with wheels, connected to a fixed support by a rope. A jet of water emerges from a hole in the tank, is deflected by a vane at an angle of 60° , and then falls into a basin. The cart is on a fixed support.

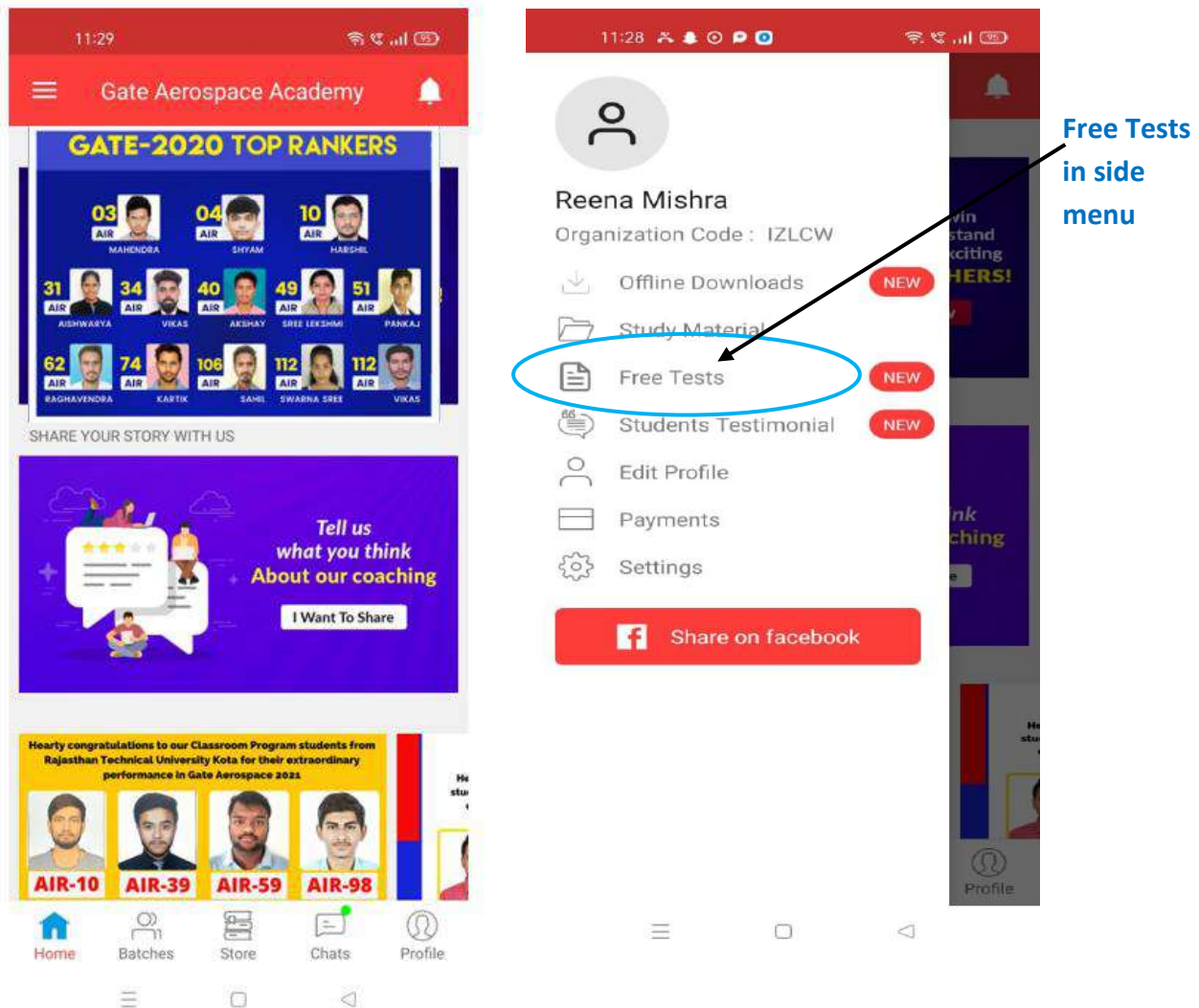
The interface also shows a sidebar with the user's name (Reena Mishra), question progress (20 Not Answered, 3 Answered), and a grid of question numbers (11 to 50) with status indicators (green for answered, red for not answered).

(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 <https://www.gateaerospaceacademy.com/> and click on online classes on top and login

(3) Features of Test interface/results

☛ Laptop and App access for Online Test	☛ Average marks and average grade of complete batch
☛ Absolutely lag free and smooth working	☛ Highest marks and grade
☛ Open or pre-scheduled Test	☛ Section-wise marks and Total marks in form of bar/chart
☛ Batch Rank and Institute Rank of students	☛ Showing different level to questions (easy, medium, hard)
☛ Solution of questions after Test	☛ Accuracy and percentage in different-different level of questions
☛ Grade and Percentile of students	☛ Declaration of Results on particular date and time
☛ Time spent on particular question	☛ Results by Mail and SMS to students
☛ Comparison with topper and average marks	☛ Information to parents (Optional)
<u>Multiple choice question</u> (MCQ)	<u>Multiple select question</u> (MSQ)
	<u>Numerical type question</u> (NAT)

(4) List of all Tests

Subject	Test Name
Aerodynamics	
Topic-wise Test	Introduction basic Test level-1
	Introduction basic Test level-2
	Thermodynamics-basic
	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
Subject-wise Test	Complete Aerodynamics test-1
	Complete Aerodynamics test-2
	Complete Aerodynamics test-3
Multiple subject Test	Gas dynamics & Fluid Mechanics-1
	Gas dynamics & Fluid Mechanics-2
Structures	
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
	Vibrations test-2
Subject-wise Test	Structures -1
	Structures -2
	Structures -3
Multiple subject Test	Strength of material & Vibrations-1

	Strength of material & Vibrations-2
Mathematics	
Topic-wise Test	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
	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	
Topic-wise Test	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
	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
	Venn Diagrams Test-1
	Venn Diagrams Test-2
Allegations and mixtures Test-1	
Allegations and mixtures Test-2	
Subject-wise Test	General Aptitude Test-1
	General Aptitude Test-2

	General Aptitude Test-3
Propulsion	
Topic-wise Test	Thermodynamics-1
	Thermodynamics-2
	Compressor -1
	Compressor -2
	Turbine
	Combustion
	Jet engine
Subject-wise Test	Propulsion-1
	Propulsion-2
Multiple subject Test	Thermodynamics & Gas dynamics-1
	Thermodynamics & Gas dynamics-1
Flight Mechanics	
Topic-wise Test	Basics of Flight mechanics Test-1
	Basics of Flight mechanics Test-2
	Aircraft Performance Test-1
	Aircraft Performance Test-2
	Stability and control Test-1
	Stability and control Test-2
Subject-wise Test	Flight mechanics Test-1
	Flight mechanics Test-2
	Flight mechanics Test-3
Multiple subject Test	Flight mechanics & Space Mechanics Test-1
	Flight mechanics & Space Mechanics Test-2

Space 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
Subject-wise Test	Space mechanics Test-1
	Space mechanics Test-2
Full syllabus Grand Test	
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
	Aerospace Engineering -9
	Aerospace Engineering -10
	Aerospace Engineering -11
	Aerospace Engineering -12
	Aerospace Engineering -13
	Aerospace Engineering -14
	Aerospace Engineering -15

GATE Previous Year Papers

Subject	Test Name
Propulsion	
Propulsion	Axial Flow compressor
	Centrifugal Compressor
	Combustion
	Turbine
	Jet Propulsion Test-1
	Jet Propulsion Test-2
	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	
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
	Shear flow& shear center & boom
	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

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