

# RANKERS STUDY MATERIAL

THE IDEAL CORRESPONDENCE COURSE

## Two Year Program for JEE Advanced, 2022

(For Students of Class XI)

(Rankers Study Material = Comprehensive Study Material + Computer Based All India Integrated Test Series

+ Concept Strengthening Classroom Program (CSCP) of about 66 hours + Phase Tests & Problems Package + myPAT - Online Test Series)

- Comprehensive study material divided into Six Phases
- Deep extensive coverage of theory to clear concepts to further build a solid foundation.
- Extensive coverage of objective as well as subjective problems to ensure pattern proof preparation for JEE Papers.
- Every Phase develops concepts through illustrations and exercises.
- Solved examples are provided to develop problem-solving skills.
- Graded levels of assignments as per the level of difficulty and pattern of JEE.
- Phase Tests (similar to JEE pattern).
- Additional Set of Problems so as to develop problem-solving skills with respect to multi-concept problems.
- Regular feedback to Students in form of performance evaluation.
- Computer Based All India Integrated Test Series - The Iconic Test Series from FIITJEE which besides developing sound examination temperament, also gives an ideal platform to analyze relative performance among serious aspirants across the nation.
- Dispatch is scheduled so as to give sufficient time to the Students to put his / her efforts to study.
- RSM is now fortified with myPAT - an Online Test Series that helps Students to become proficient in their concepts and helps them with effective test analysis.

### FIITJEE Students from Rankers Study Material Program & All India Test Series Program excelled in JEE Advanced, 2019 !

Rankers Study Material				All India Test Series				
S.No.	Name	AIR	S.No.	Name	AIR	S.No.	Name	AIR
1	Adithya Bhaskar	18	5	Arpit Chauhan	87	1	Harshit Gupta	26
2	Gudipaty Aniket	29	6	Pranjal Aggarwal	143	2	Jash Shah	34
3	Rajdeep Singh Dhingra	38	7	Niranjan J Nair	182	3	Aman Yadav	46
4	Chirag Jain	41				4	Shivam Raj	101
						5	Pranav Sanjay Maral	117
						6	Aryan Mundada	121

  

JEE Advanced, 2019 (AIR)	Top 200	Top 500	Top 1000	Top 2000	Top 5000	Top 10000
Number of FIITJEE Students from RSM, AITS & GMP	14	37	72	126	255	395

All our Results are from General Category only



myPAT is an Online Platform for Learning through Assessment, Analysis and Identification of Improvement Areas. Powered by Edfora, myPAT enables you to track your progress, giving an in depth analysis and allows you to assess yourself both in Test Mode and Learning Mode. Besides your absolute performance analysis at varying level like subject chapter and concept, you would be able to check your performance in various types of questions as well as level of difficulty of questions.



#### 1. LEARN

**Learn** important concepts from experts & solved previous year test papers according to your personalised schedule



#### 2. PRACTICE

**Practice** and master every concept as you graduate from Level 01 to Level 10



#### 3. TEST

**Test** your preparation by attempting concept, part and full tests of your target exams

#### 4. REVISE

**Revise** weaker concepts and chapters with instant test results



#### 5. COMMUNITY

**Ask** questions and connect with other students to gain and share knowledge



#### 6. PROFILE

**Follow** your favorite people and challenge them on concept, part & full tests to compete together

Testing pattern of JEE (Main & Advanced) keeps on changing but the key aspect of the test is to judge the student's analytical ability alongwith his / her core knowledge of the subjects.

In the quest for a seat with a good rank in JEE (Advanced) where about 11,000 of the entire science students of the country can be accommodated, only the deserving ones can make to the IITs irrespective of the testing pattern. In order to select the best, the level of difficulty would remain unchanged. Students having sound fundamental knowledge of subject will always outperform the students who are only confining their preparation to pattern rather than understanding the concepts. Since inception, FIITJEE has laid emphasis on making the students imbibe the fundamental concepts of Physics Chemistry & Mathematics and on sharpening their analytical skills and parallel thinking process. At FIITJEE you will find a very powerful system that can help you unfold your full potential systematically. What is required is total dedication and hard work.

TEST CENTRES* for Computer Based All India Integrated Test Series				
Delhi (South)	Bathinda	Guwahati	Kolkata	Roorkee
Delhi (North West)	Bhagalpur	Gwalior	Kota	Rourkela
Delhi (East)	Bhilai	Haldwani	Lucknow	Shaktinagar (NTPC)
Delhi (Dwarka)	Bhopal	Hisar	Ludhiana	Siliguri
Delhi NCR (Faridabad)	Bhubaneswar	Hyderabad	Meerut	Sonipat
Delhi NCR (Ghaziabad)	Bokaro	Indore	Mumbai	Thrissur
Delhi NCR (Gurgaon)	Chandigarh	Jabalpur	Navi Mumbai	Vadodara
Delhi NCR (Noida)	Chennai	Jaipur	Thane	Varanasi
Agartala	Coimbatore	Jammu	Muzaffarpur	Vijayawada
Agra	Cuttack	Jamshedpur	Nagpur	Visakhapatnam
Ahmedabad	Darbhanga	Jhansi	Nashik	Wardha
Allahabad	Dehradun	Jodhpur	Patna	
Amritsar	Dhanbad	Kanpur	Pune	
Aurangabad	Durgapur	Karnal	Raipur	
Bangalore	Gaya	Kharagpur	Ranchi	
Bareilly	Gorakhpur	Kochi	Rohtak	

\* These are the test centres for JEE (Main & Advanced) Test Series only. Concept Strengthening Classroom Program will be held at FIITJEE Centres only.

Note: FIITJEE reserves the right to change / cancel any Test / CSCP Centre without any prior notice.

## Eligibility Criterion

Candidate must have secured minimum 75% in Class X (Science + Maths) from CBSE, ICSE, Andhra Pradesh, Anglo Indian, Haryana, Kerala, Maharashtra, Telangana, Tamilnadu & West Bengal boards. Minimum 70% in X (Science + Maths) from other boards. Candidate must have appeared in X Board in the year 2020.

**Direct Admission** to Students having qualified any stage of NTSE, KVPY, Olympiad, Jr. Science Olympiad or JSTSE / SSTSE / MTSE / similar Talent Search Exam conducted by State Govt.

**Note:** In case of only Grade System in Boards, equivalent Grade Corresponding to eligibility criteria will be considered.

\* Those Students who are not eligible on the basis of marks, but are qualified in any of our Admission Tests / Scholarship Tests are eligible to apply.

## Course Fee of Rankers Study Material 2020-22 (Two Year Program for JEE Advanced 2022) :

Program Code	Books Fee	Computer Based All India Integrated Test Series (AITS) Fee	myPAT Online Test Series* Fee	Total Amount
1191	Rs. 13800	Rs. 11328 (Rs. 9600 + 18% GST)	Rs. 4719 (Rs. 3999 + 18% GST)	<b>Rs. 29847</b>
1195	Rs. 13800	Rs. 11328 (Rs. 9600 + 18% GST)	--	<b>Rs. 25128</b>

\***myPAT Package:** Total 17 Tests (10 Full Tests + 7 Part Tests) for JEE Main & Total 17 Tests (10 Full Tests + 7 Part Tests) for JEE Advanced.

For details of myPAT please visit [www.mypat.in](http://www.mypat.in)

The first packet of Books (Phase-I Study Material) will be dispatched in April / May.

**Note 1 :** Students of Junior Rankers Study Material will be entitled for 10% concession on Books Fee & Computer Based AITS Fee of Rankers Study Material Two Year version for JEE Advanced.

## How to Enrol

Apply on prescribed Enrolment Form (can be collected from nearest FIITJEE centre or downloaded from [www.fitjee-distancelearning.com](http://www.fitjee-distancelearning.com))

Send your completely filled Enrolment Form through post / courier to

**National Admissions Office (NCRP), FIITJEE House, 29-A, Kalu Sarai, Sarvapriya Vihar, New Delhi-110016** along with :

- A. Four passport size colour photographs,
- B. Photocopy of Class X Board Exam Mark Sheet / duly signed Declaration Form (download from [www.fitjee-distancelearning.com](http://www.fitjee-distancelearning.com)) if Class X Board result is awaited.
- C. Demand Drafts / Pay Orders payable at Delhi in favour of
  - (i) "Megacosm Cognitions Pvt. Ltd." for Books Fee
  - (ii) "FIITJEE Ltd." for Computer Based All India Test Series Fee
  - (iii) "Edfora Infotech Pvt. Ltd." for myPAT Online Test Series Fee

You can also submit your completed Enrolment Form in person at the nearest FIITJEE Centre.

You also have an option to enrol ONLINE at [www.fitjee-distancelearning.com](http://www.fitjee-distancelearning.com) for program code 1195 only.

## Scholarship Criterion - Rankers Study Material 2020-22

Exam Name	Stages Level	Stage I Qualified	Scholarship to be given on enrolling in Rankers Study Material	Stage II Qualified	Scholarship to be given on enrolling in Rankers Study Material	Stage III Qualified	Scholarship to be given on enrolling in Rankers Study Material	Stage V Performance	Scholarship to be given on enrolling in Rankers Study Material
NTSE (Conducted by NCERT)	✓ (Qualified State Level Written Exam)	25% Scholarship on Books Fee & AITS Fee. For State Topper - 35% Scholarship on Books Fee & AITS Fee	✓ (Qualified National Level Written Exam) - Final Scholar	65% Scholarship on Books Fee & AITS Fee	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
JSTSE (Delhi) / SSTSE (Rajasthan) / MTSE (Maharashtra) or similar kind of Talent Search Exam conducted by State Government	✓ (Qualified Written Exam)	25% Scholarship on Books Fee & AITS Fee	✓ (Final Interview) - Wherever Applicable	Rank 1 : 50% Scholarship on Books Fee & AITS Fee Rank 2 to 20 : 35% Scholarship on Books Fee & AITS Fee	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
KVPY (Conducted by Department of Science & Technology)	✓ (Qualified Written Test & Called for Interview)	35% Scholarship on Books Fee & AITS Fee	✓ (Selected after Interview)	50% Scholarship on Books Fee & AITS Fee	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
National Olympiads (Organised by HBCSE)	✓ (Qualified National Standard Examination in Physics / Chemistry / Astronomy or Regional Mathematical Olympiad for Stage-II Level)	50% Scholarship on Books Fee & AITS Fee	✓ (Qualified Indian National Olympiads in Mathematics / Physics / Chemistry / Astronomy for Stage-III Level)	65% Scholarship on Books Fee & AITS Fee	✓ (Selection in Stage-III i.e. Orientation Cum Selection Camp for Stage-IV Level i.e. Pre Departure Training Camp for International Physics / Chemistry / Mathematical / Astronomy & Astrophysics Olympiad)	Amount to be paid by the Student as Enrollment Fee = Rs. 1000 (inclusive of GST), Student will also get GMP free of cost	✓ (Winning Medal for the Country in International Physics / Chemistry / Mathematical / Astronomy & Astrophysics Olympiad)	For Gold Medalist, Enrollment Fee = Rs. 200 (inclusive of GST) For Silver Medalist, Enrollment Fee = Rs. 400 (inclusive of GST) For Bronze Medalist, Enrollment Fee = Rs. 800 (inclusive of GST), Student will also get GMP free of cost	
Junior Science Olympiad (Organized by HBCSE)	✓ (Qualified National Standard Examination in Junior Science for Stage- II Level)	50% Scholarship on Books Fee & AITS Fee	✓ (Qualified Indian National Junior Science Olympiad for Stage-III Level)	65% Scholarship on Books Fee & AITS Fee	✓ (Selection in Stage-III i.e. Orientation Cum Selection Camp in Jr. Science for Stage-IV Level i.e. Pre Departure Training Camp for International Jr. Science Olympiad)	Amount to be paid by the Student as Enrollment Fee = Rs. 1300 (inclusive of GST), Student will also get GMP free of cost	✓ (Winning Medal for the Country in International Jr. Science Olympiad)	Student will also get GMP free of cost	
On the basis of marks obtained in X Board	Students who have secured a minimum of 90% in aggregate & 95% in (Science + Maths) / PCM in X board exams of CBSE, ICSE, Andhra Pradesh, Anglo Indian, Haryana, Kerala, Maharashtra, Telangana, Tamilnadu & West Bengal boards OR a minimum of 90% in (Science + Maths) / PCM & 85% in aggregate from any other board.	25% Scholarship on Books Fee	Students who have secured a minimum of 93 % in aggregate & 97 % in (Science + Maths) / PCM in X board exams of CBSE, ICSE, Andhra Pradesh, Anglo Indian, Haryana, Kerala, Maharashtra, Telangana, Tamilnadu & West Bengal boards OR a minimum of 93 % in (Science + Maths) / PCM & 88 % in aggregate from any other board.	35% Scholarship on Books Fee	Students who have secured a minimum of 95% in aggregate & 99% in (Science + Maths) / PCM in X board exams of CBSE, ICSE, Andhra Pradesh, Anglo Indian, Haryana, Kerala, Maharashtra, Telangana, Tamilnadu & West Bengal boards OR a minimum of 95% in (Science + Maths) / PCM & 90% in aggregate from any other board.	50% Scholarship on Books Fee	N/A		
In case of only Grades being given in Board Results and where marks are not mentioned	A1 in Science, Math & any 2 other subjects and overall CGPA 9.80 or above.	25% Scholarship on Books Fee	A1 in Science, Math & any 3 other subjects and overall CGPA 10.00.	35% Scholarship on Books Fee	Note : Students of IGCSE (International General Certificate of Secondary Education) and IB (International Baccalaureate) program are also eligible for the scholarship, the criterion will be equivalent to that of CBSE.				

### The upgraded grades (A1\* or A1\*\*) will not be considered for scholarships.

**Note 1 :** Scholarships on Scholastic achievement are applicable for those Students qualifying in the general category only.

**Note 2 :** All the above scholarships are valid only on submission of Marksheet / Certificates / letters of selection from the concerned authorities, verified & attested only by the Principal of the school / Gazetted officer.

**Note 3 :** If a Student is eligible for two or more than two scholarships, he can avail only one scholarship whichever is higher or highest.

## Syllabi of Computer Based All India Integrated Test Series (in Class XI) 2020-21

PAPER	CHEMISTRY	MATHEMATICS	PHYSICS
<b>Part Test - I</b>			
Main	Atomic Structure, Classification of Elements and Periodicity in Properties, Chemical Bonding & Molecular Structure, States of Matter - Gaseous and Liquids, Solid State, Some Basic Concepts of Chemistry and Redox Reactions, Chemical Equilibrium, Ionic Equilibrium, Chemical Energetics & Thermodynamics.	Straight Line, Circles, Parabola, Ellipse, Hyperbola, Quadratic Equations & Expressions	Units and Measurement, Description of Motion in One Dimensions, Description of Motion in Two and Three Dimensions, Laws of Motion, Work, Energy and Power, Rotational Motion and Moment of Inertia
Advanced	Atomic Structure, Periodic Properties & Chemical Bonding, Gaseous State, Stoichiometry & Balancing of Redox Reaction, Chemical Equilibrium, Ionic Equilibrium, Solid State	Straight Line, Circle, Parabola, Ellipse, Hyperbola, Quadratic Equations and Expressions	Kinematics, Laws of Motion, Work, Energy and Power, Conservation of Momentum, Rotation
<b>Part Test - II</b>			
Main	Concepts of Acids and Bases, General Organic Chemistry, Isomerism, s-Block & Hydrogen, Boron and Carbon Family, Hydrocarbons, Electrophilic Aromatic Substitution, Environmental Chemistry	Trigonometric Ratios & Identities, Trigonometric Equations, Heights & Distances, Progressions, Series & Inequalities, Exponential Series & Logarithmic Series, Binomial Theorem, Complex Numbers, Demovire's Theorem & Hyperbolic Functions, Mathematical Induction, Permutation & Combination	Gravitation, Solids and Fluids, Oscillations, Wave, Heat and Thermodynamics, Transference of Heat
Advanced	Concepts of Acids and Bases, General Organic Chemistry, Isomerism, s-Block & Hydrogen, Boron and Carbon Family, Hydrocarbons, Electrophilic Aromatic Substitution	Trigonometric ratios and Identities, Trigonometric equations, Solution of triangles, Binomial Theorem, Complex Numbers, Permutation and Combination, Progression and Series	Gravitation, Fluids, Heat and Thermodynamics, Simple Harmonic Motion, Waves and Sound

- Syllabi of Half Course Tests (in Class XI) will be the combined syllabi of Part Tests - I & II as above.
- Schedule of Tests will be made available in August 2020.

## Syllabi of Computer Based All India Integrated Test Series (in Class XII) 2021-22

PAPER	CHEMISTRY	MATHEMATICS	PHYSICS
<b>Part Test - I</b>			
Main	Atomic Structure, Solid State, Chemical Equilibrium, Balancing of Redox Reaction, Ionic Equilibrium, Chemical Bonding, s-Block and Hydrogen, Boron and Carbon Family, Periodic Properties	Sets, Relations and Functions, Limits, Continuity and Differentiability, Application of Derivatives, Indefinite Integration, Definite Integrals and their Properties, Area, Differential Equations, Mathematical Reasoning, Volume & Surface	Units and Measurement, Kinematics (Motion in One Dimension), Vectors, Kinematics (Motion in Two and Three Dimensions), Relative motion, Laws of Motion, Work, Energy and Power, Center of mass, Conservation of momentum Collisions, Circular motion, Rotational Motion
Advanced	Atomic Structure, Solid State, Chemical Equilibrium, Balancing of Redox Reaction, Ionic Equilibrium, Chemical Bonding, s-Block and Hydrogen, Boron and Carbon Family	Functions, Limits, Continuity and Differentiability, Application of Derivatives, Indefinite Integration, Definite Integrals and their properties, Area, Differential Equations	Kinematics, Laws of Motion, Work, Energy and Power, Conservation of Momentum, Rotation
<b>Part Test - II</b>			
Main	Organic Chemistry (Including GOC), Practical Organic Chemistry, Biomolecules, Polymers	Trigonometric Ratios and Identities, Trigonometric Equations, Heights and distance, Solution of triangle, Straight Lines, Circles, Parabola, Ellipse, Hyperbola, Mathematical Induction	Kinetic theory of gases, Heat and Thermodynamics (second law+reversible and irreversible process, carnot engine+thermal expansion + calorimetry), Transfer of Heat + convection, Electrostatics, Current Electricity (color code of resistors), Thermal Effects of Current, Magnetic Effects of Current, Pure magnetism (current loop as magnetic dipole and its moment), bar magnet, magnetic field lines, earth magnetism, para-dia-ferro), Magnets, susceptibility and permeability, hysteresis, electromagnets and permanent magnets, Magnetostatics, Electromagnetics Induction and Alternating Currents (ac generator and transformer, wattless current, quality factor)
Advanced	Organic Chemistry (including GOC), Practical Organic Chemistry, Biomolecules, Polymers	Trigonometric ratios and identities, Trigonometric equations, Solution of triangles, Straight Lines, Circles, Parabola, Ellipse, Hyperbola	Heat and Thermodynamics, Electrostatics, Current Electricity, Magnetism, Electromagnetic Induction, A.C. Circuit
<b>Part Test - III</b>			
Main	Group V to VIII, Transition Elements & Coordination Compounds, f-Block elements, Ores and Metallurgy, Liquid Solution, Surface Chemistry, Electrochemistry, Thermodynamics & Thermochemistry, Stoichiometry, Gaseous State, Qualitative Analysis, Chemical Kinetics, Environmental Chemistry, Chemistry in Everyday Life	Progression and Series, Quadratic Equations and Expressions, Complex Numbers, Binomial Theorem, Matrices, Determinants, Permutation and Combination, Statistics (Measures of Dispersion) and Probability, Probability Distribution, Binomial Distribution, Vector, Three Dimensional Geometry	Oscillations (forced and damped oscillations), Wave & Sound, Ray Optics (microscope and astronomical telescope), Wave Optics (diffraction (single slit), resolving power of microscope and astronomical telescope, polarisation, Brewster's law, uses of polaroids and polarised light), Electromagnetic Waves, Dual Nature of Matter & Radiation, Atoms, Molecules and Nuclei, Electronic Devices & Communication Systems, Experimental Skills in Physics, Gravitation, Properties of Solids and Fluids + streamline flow, turbulent flow, Reynolds number
Advanced	Group V to VIII, Transition Elements & Coordination Compounds, Ores and Metallurgy, Liquid Solution, Electrochemistry, Thermodynamics & Thermochemistry, Stoichiometry, Gaseous State, Qualitative Analysis, Chemical Kinetics	Progression and Series, Quadratic Equations and Expressions, Complex Numbers, Binomial Theorem, Matrices Determinants, Permutation and Combination, Probability, Vector, Three Dimensional Geometry	Gravitation, Fluids, Simple Harmonic Motion, Waves & Sound, Optics, Modern Physics, Error Analysis

- Full Tests Syllabi will be combined syllabi of Part Tests - I, II & III.
- Schedule of Tests will be made available in August 2021.