

JEE (Main)

2024

GUIDE





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About JEE (Main) 2024

JEE (Main) is a National Level Engineering Entrance Examination conducted by National Testing Agency (NTA). Formerly known as All India Engineering Entrance Examination (AIEEE) till 2013, JEE (Main) comprises two papers. Paper 1 is conducted for admission to Undergraduate Engineering Programs (B.E/B.Tech.) at NITs, IITs, other Centrally Funded Technical Institutions (CFTIs), and Institutions/Universities funded/recognized by participating State Governments. JEE (Main) is also an eligibility test for JEE (Advanced), which is conducted for admission to IITs. Paper 2 is conducted for admission to B. Arch and B. Planning courses in the country.

This examination will be conducted in 13 languages - English, Hindi, Assamese, Bengali, Gujarati, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil, Telugu and Urdu.

Must know

Facts about JEE (Main)

- JEE (Main) will be conducted twice a year ; the first session is scheduled between January 24th and February 1st, 2024, while the second session will take place from April 1st to April 15th, 2024.
- Aspirants have the flexibility to choose to appear for JEE (Main) in either January or April, or even in both. The All India Rank will be calculated based on the best score of the two sessions for the counselling process.
- The examination will be conducted in the Computer-Based Test (CBT) mode only.
- Candidates falling within the General, EWS, and OBC categories must achieve a minimum score of 75%, while those from the SC and ST categories are required to attain at least 65% in their qualifying examination (12th grade) OR secure a position under top 20 percentile in their respective board examinations to get eligible for admission into NITs, IITs, and GFTIs/CFTIs through the JOSAA counselling process.



Paper 1 B.E/B.Tech in Computer Based Test (CBT) Mode:

Subject-wise distribution of question, total number of Questions, and marks	Subject	Section A	Section B	Marks
	Mathematics	20*	10*	100
	Physics	20*	10*	100
	Chemistry	20*	10*	100
	Total	90		300

*Each Subject will have two sections. Section A will be of Multiple-Choice Questions (MCQs) and Section B will contain Questions whose answers are to be filled in as a numerical value. In Section B, candidates have to attempt any 05 (five) questions out of 10. There will be negative marking for both Section A and Section B. For each question in Section B, A candidate has enter the correct integer value of the answer using the mouse and the on-screen virtual numeric keypad in the place designated to enter the answer. For Section B, the answer should be rounded off to the nearest integer.

Exam Pattern

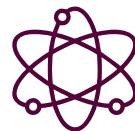
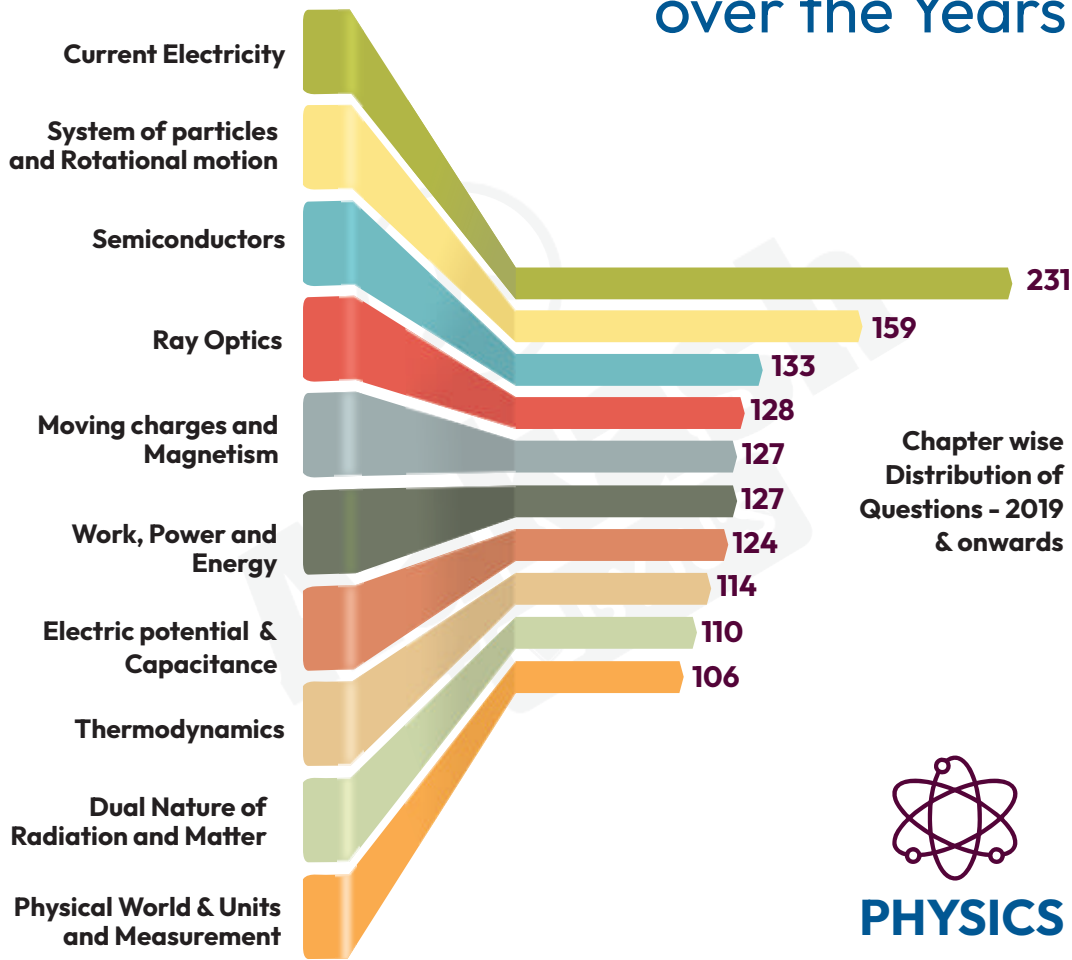
Previous Year's Cut off Trends

Category	2023	2022	2021	2020	2019
General	90.7788642	88.412138	87.899224	90.376534	89.754885
General - EWS	75.6229025	63.111414	66.221485	70.243552	78.217487
OBC-NCL	73.6114227	67.00903	68.023445	72.888797	74.316656
SC	51.9776027	43.082095	46.882534	50.176025	54.012816
ST	37.2348772	26.777133	34.6729000	39.06961	44.334517
Gen-PwD	0.0013527	0.0031029	0.0096375	0.0618524	0.1137173



Chapter Name (Physics)

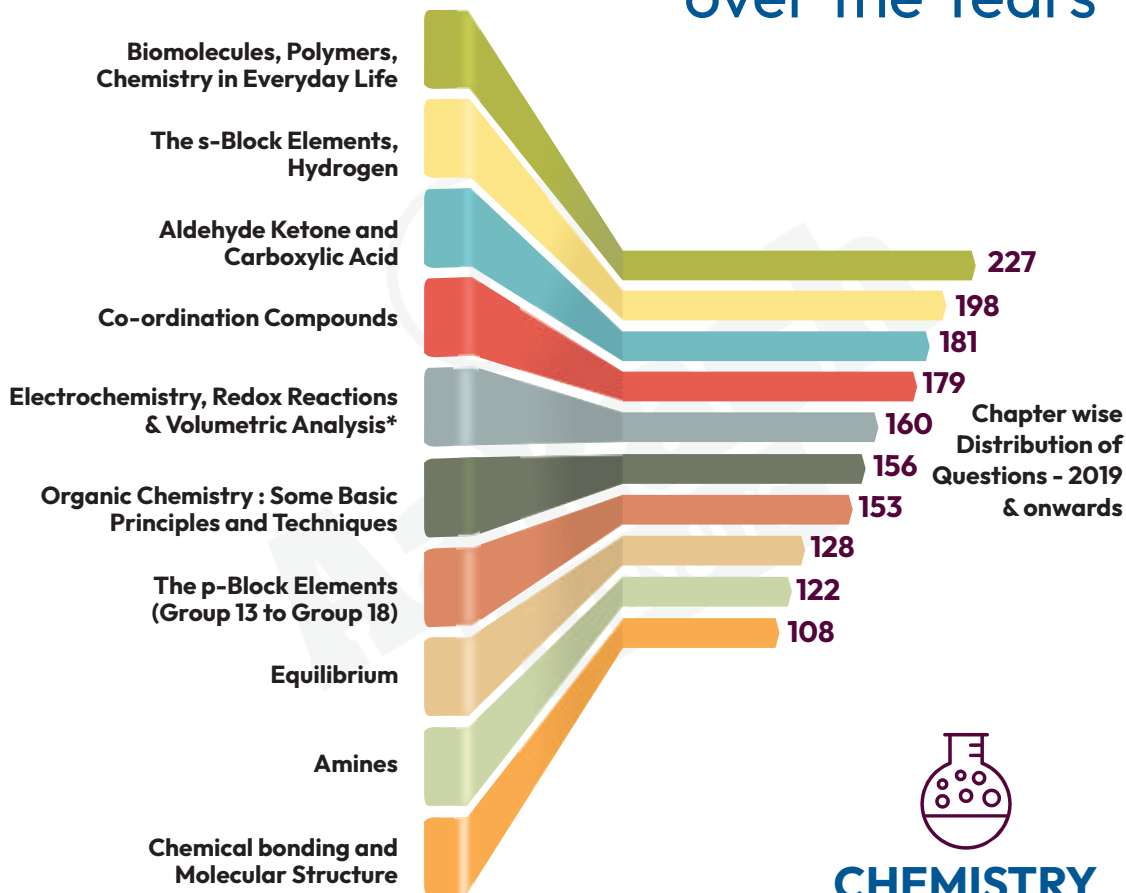
JEE (Main) Trends over the Years



PHYSICS

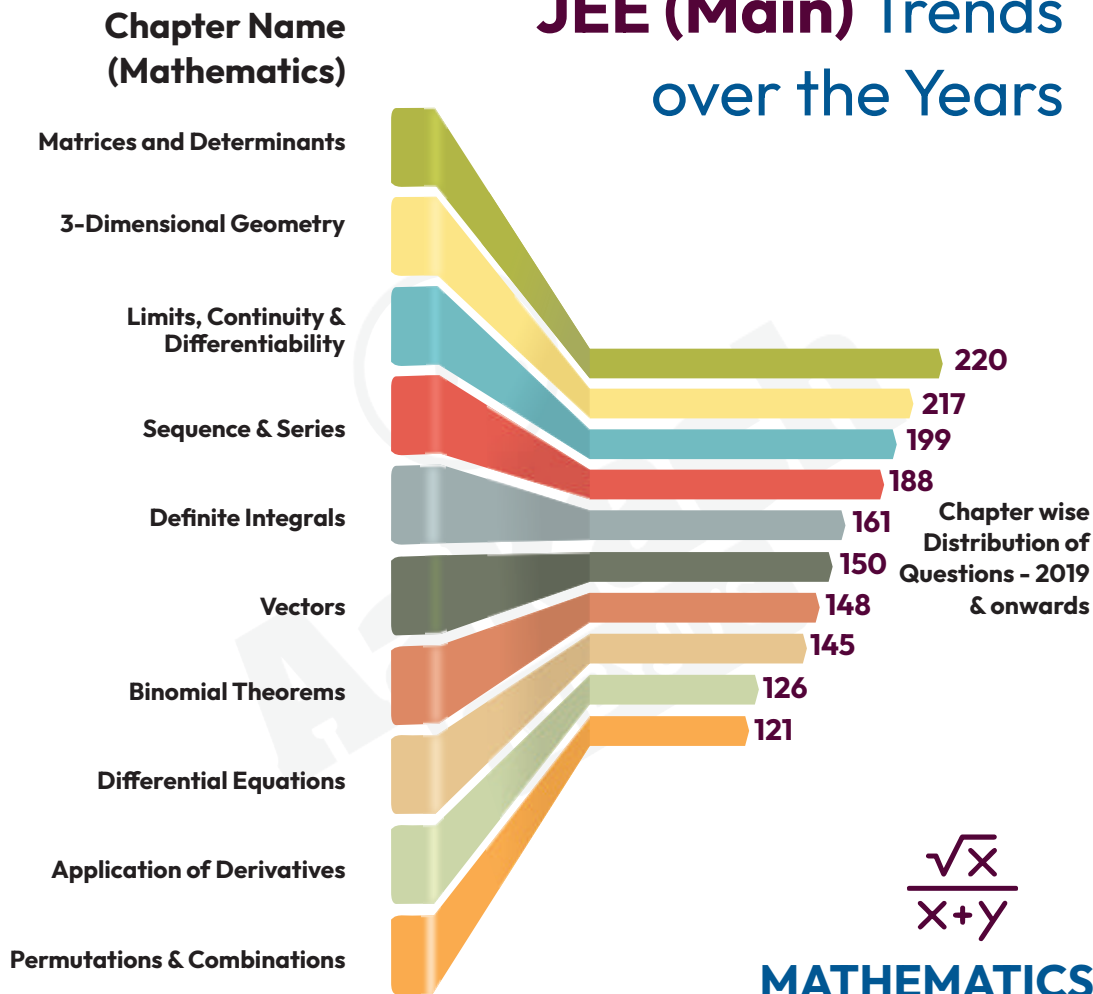
JEE (Main) Trends over the Years

Chapter Name (Chemistry)

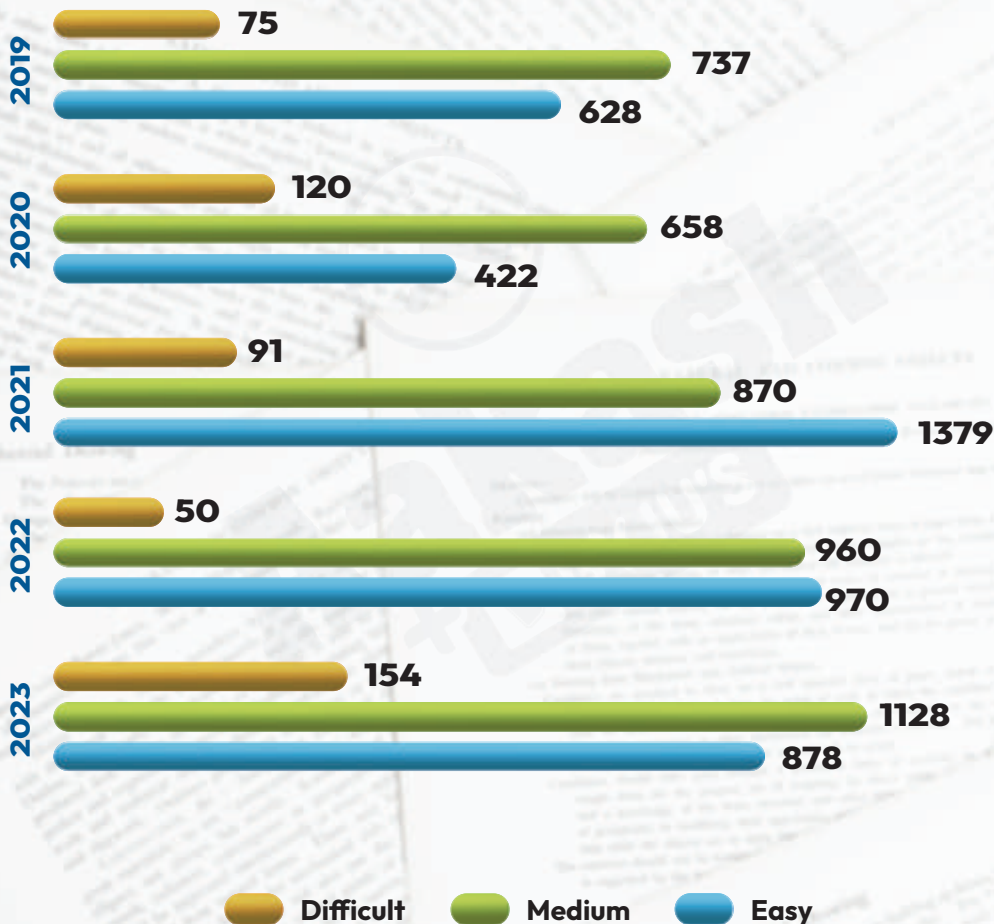


CHEMISTRY

JEE (Main) Trends over the Years



Level of Questions Across Years



JEE (Main) Year-wise & Class-wise question distribution

Physics



JEE (Main) Year-wise & Class-wise question distribution

Chemistry



JEE (Main) Year-wise & Class-wise question distribution

Mathematics



Success Mantra

from JEE (Main) Toppers

- I kept a mix of topics during my revision including both weak and strong.
- I gave mock tests almost every day in the last month in the same slots either 09:00 am to 12:00 pm or 03:00 pm to 06:00 pm.
- I had confidence over my concepts and learnings and hence I did not take any stress on the last day.
- My teachers would clear all the small little doubts there itself, also discussing with friends, help me create more creative solutions for tough questions.
- I exercised for 10-15 minutes in every morning and maintained a wealthy nutritious diets and took enough sleep.
- I focussed on topics which are specific for JEE MAIN. Study these topics through NCERT testbooks. These topics helps in scoring higher marks.
- Thoroughly analysed mistakes in exams, learn from them. Treat every test as a learning opportunity and focus on improving your performance step by step.



Dhruv Sanjay Jain
JEE (Main) **AIR-8**

Success Mantra

from JEE (Main) Toppers

- The last few months before JEE (Main) are very crucial, we need to be consistent with studies and take good care of our body and keep our mind full of positive thoughts and confidence.
- For JEE (Main) previous year questions become a good source of practice due to repetition in paper patterns, so solving them cannot only give a good source of questions but also an understanding of our strengths and weaknesses.
- A good thorough revision is necessary. We must be crystal clear with topics which we have gone through, also planning in ahead can help keep everything organized for last few months.
- Attempt all Mock Tests and do the error analysis after that. Also keep no doubts uncleared and do not hesitate in asking them to your teachers.
- Never feel pressurised as pressure, stress, tension, anxiety always worsen our performance. Keep calm and do not panic and have faith in your abilities. Think about maintaing your score rather than aiming for particular percentile/rank. We can only control our action and give our best.



Dhruv Sanjay Jain
JEE (Main) **AIR-8**

Success Mantra

from JEE (Main) Toppers

- Consistency is the key to succeed in JEE. It is virtually impossible to study only a few days before exam and achieve great rank in JEE. You need to devote yourself completely to the preparation.
- Focus on understanding all the concepts. Having strong foundation and solving fundamental problems is necessary before you attack the tougher problems.
- There is a plethora of books available for your JEE preparation but before moving on additional material, make sure you have solved the modules given to you. Also regularly practice as many previous year problems as possible (especially those which were asked during 2019-2023).
- Allocate sufficient time for all the three subjects. Give more time to those topics/subjects which you are least comfortable. Because in the exam all three have the same weightage.
- NCERT plays an important role in your Chemistry preparation. Spend some time daily on reading NCERT as a majority of the problems in Inorganic and Organic Chemistry directly come from text of NCERT books.



Kamyak Channa
JEE (Main) **AIR-21**

Success Mantra

from JEE (Main) Toppers

- There are certain topics which are asked only in JEE Mains. Make sure you do not ignore them as they constitute a significant portion of the question paper.
- Giving mock tests on a regular basis is extremely important. Practicing a lot of mock tests familiarizes us with the exam situation and pressure. It trains you to stay calm during the exam situation.
- Attempt each and every exam of FTS. It contains has problems related to the current trend. Do give the tests even if your revision is not complete. Analyze the unattempt and incorrect questions.
- You must have an exam strategy based on your strengths and weaknesses. Try various strategies in mock tests until you find one which suits you the most. Manage your time efficiently during the exam and do not get stuck on a particular problem especially during first 60-90 mins.



Kamyak Channa
JEE (Main) **AIR-21**

Top Preparation Tips



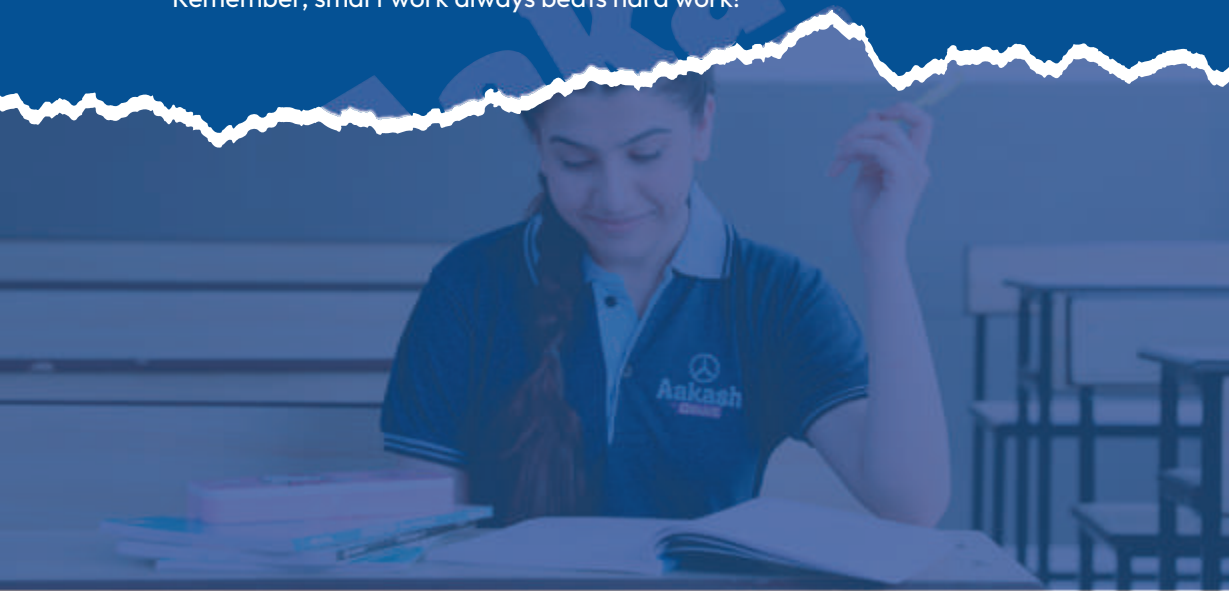
START YOUR PREPARATION EARLY AND PLAN YOUR STUDY: It is beneficial for you to start your preparation from the 11th grade. You will be able to have a better understanding of the syllabus and get hold of your strong areas and the ones you need to work on.



UNDERSTAND THE SYLLABUS AND STAY UPDATED: JEE covers a vast syllabus. Dedicate these two years of your life religiously to this examination. Follow a timetable and maintain a record of the chapters that you have covered and the ones that require revision. Also, stay updated about the exam pattern, eligibility criteria, etc.



USE THE RIGHT STUDY MATERIALS: JEE is a very vital exam, choose the books and the other study materials judiciously. NCERT books are the best, as they help in forming the base. Keep a track of important formulae, equations, theorems, etc. Always go for concept-based learning rather than learning the lengthy chapters. Remember, smart work always beats hard work!



Top Preparation Tips



CLEAR YOUR DOUBTS ON REGULAR BASIS: Whenever you're stuck on a concept or problem, don't let it linger. Clarify your doubts either through your teachers, peers or online forums.



ANALYZE MISTAKES AND LIMIT DISTRACTIONS: After each test, analyze your mistakes. Understanding where you went wrong will help you prevent repeating those mistakes. At the same time, stay away from unnecessary distractions, especially as the exam approaches. This includes excess use of social media or indulging in too many leisure activities.



PREVIOUS YEARS' PAPERS AND MOCK TESTS: Solving previous years' JEE question papers gives you a clear idea about the type of questions asked and helps improve time management. Regularly take mock tests. It also aids in time management, which is crucial in the actual exam. Additionally, you also get habituated with the type of questions.



Best Books for JEE Main 2024

There are hundreds of books out there on each subject. Selection of relevant and sufficient books is most important part of strategy to crack JEE (Main) with top ranks.

Our experts have selected them for you on the basis of deep understanding of JEE requirements. These are :

Physics

NCERT Books (vol. 1 & 2 of 11th & 12th)

Concept of Physics, vol. 1 & vol. 2 by HC Verma

Fundamental Physics – Resnick, Walker & Halliday

Problems in General Physics by I.E. Irodov.

Chemistry

NCERT – XI and XII (Part 1 & 2)

Organic Chemistry by Morrison Boyd

Numerical Chemistry by P. Bahadur

Concise Inorganic Chemistry by J.D. Lee

Organic and Inorganic Chemistry by O.P. Tandon

Mathematics

Comprehensive Mathematics (McGraw Hill)

Higher Algebra (Hall & Knight)

Trigonometry (S. L. Loney)

Coordinate Geometry (S. L. Loney)

Calculus by Thomas and Finney



Subject-wise Preparation Strategy

Physics

Physics is concept based subject. So it requires in-depth understanding of natural laws and their applications. It is more interesting than other subjects.

- Fundamentals of physics must be understood first from NCERT and HCV books.
- Concept must be developed to solve numerical.
- Theoretical aspects should be covered from NCERT and HCV books.
- After HCV and NCERT problem, try Irodov's book. It will strengthen solving ability of problems.
- Try to solve problems with the help of diagrams. Put data on diagram and then analyze to get it done in minimum steps.
- Practice past years questions. They are most relevant for the exam.
- Always try to solve questions in limited time. Speed is more important.
- Some important topics are – Rotations, Fluid, Thermodynamics, Electrostatics, Current Electricity, Magnetism, Optics and Modern Physics.
- Modern physics is very scoring and easy too.
- In JEE Main, theoretical chapters, such as EM waves, Magnetism and Matter, Semiconductors are also important. Read them from NCERT and HCV.

Subject-wise Preparation **Strategy**

Chemistry

JEE (Main) chemistry, traditionally regarded as the easiest of the three courses, may be easily nailed by a comprehensive study of NCERT Chemistry (Part 1 and Part 2).

- Physical chemistry is the most basic. Learn its formulas after understanding and know how to apply them.
- Practice rapid multiplications and divisions for answering physical chemistry questions. This will save your time during the exam.
- If you have the formulae at your fingertips, application-based questions will be easy to solve.
- To do well in Organic chemistry, you must know name reactions and crucial equations.
- Concentrate on understanding the mechanism of reactions.
- Inorganic is all about memorizing (after comprehending) as it is entirely theoretical.
- Analyze patterns in the properties of elements and their compounds.
- Practice the reactions by writing them several times so that they get ingrained in your mind.
- Read the NCERT from beginning to end. Don't skip a single line--that's the key for preparing chemistry.
- With a little work, you can easily achieve an 80+ out of 100 in chemistry.
- Periodic revision of Organic and Inorganic equations.

Subject-wise Preparation **Strategy**

Mathematics

JEE Mathematics required conceptual clarity and problem solving skills, as the exam often presents complex but fundamental with problems.

- Calculus, has the maximum weightage in Mains and Advanced paper, as it requires the strong fundamentals, understanding of concepts and its application.
- Conic sections in Coordinate Geometry, 3D Geometry and vectors are relatively easy to master, JEE carry significant weightage in these segments. So scoring well in this area can boost your overall score.
- Permutation and Combinations, Binomial theorem and Trigonometry has less weightage, hence manage your time accordingly for these topics.
- In JEE (Main) Mathematical Reasoning, Statistics and Matrices are comparatively easy topics to understand, while they appear regularly in Main Paper.

The D-Day Strategy

With JEE MAIN 2024 scheduled from 24th January, 2024 to 1st February, 2024, students have only a few days now. The last days before the exams are very crucial and should be utilised in the best possible way. We are sharing below some Expert Advice from Previous Year Toppers for the D-Day of the exam. Kindly use these tips and Expert Advice so that you will get the best possible outcome in the exam.

The D-Day Strategy

JEE Main Paper has 90 questions – Among them 25 from Physics, 25 from Chemistry and 25 from Mathematics needs to be attempted. Here are some pointers that IITians have shared about their exam day experience:

1. Before you enter the exam hall, know this – you will not be able to solve all the questions, neither will any other person be. And it is perfectly OKAY!
2. You have 180 minutes to complete the paper with 25 questions in each subject. But do not make the mistake of assuming that you have 1 hour for each subject. Chemistry is expected to be completed in 35-40 minutes. You will require remaining time in tougher sections, that is, Physics and Math. 80 minutes is enough for solving the Mathematics section, which leaves you with an hour for Physics.

The D-Day Strategy

3. While solving questions, first opt the ones which are easy. Since each question has equal marks, do not miss out on any question which you can solve.
4. JEE Main has negative marking for incorrect answers. So, avoid guessing answers.
5. Do not freak out if you are unable to solve some questions. Additionally, do not spend too much time on one question. Move on. You can come back to it later.
6. Once you read a question, go through its options before you start solving it.
7. While you are at it, do not rush into solving questions. While we won't ask you to be too generous with your time, simply rushing will end up in a lot of silly mistakes.
8. Remember to use the tricks and shortcuts that you have used during preparation.
9. Last but not the least, visit your exam center a day before the exam. This will help you on the exam day as you will not feel panicked for finding the location of the exam center.

Best of Luck !!!

Outstanding Results in JEE (Main & Adv.) 2023

12918

11473 Classroom + 1445 Distance & Digital

Aakashians Qualified in JEE (Main) 2023

11

in Top 100 AIR
(All India Rank)

45

in Top 500 AIR
(All India Rank)

974

99 Percentile
& Above

Including Students from Classroom, Digital EDEL Courses across all Categories



Dhruv Sanjay Jain
4 Year Classroom

100
Percentile
Maths & Physics
8 AIR
100 Percentile



Kamyak Channa
4 Year Classroom

100
Percentile
Maths
21 AIR
100 Percentile



Anoop Singh
4 Year Classroom

100
Percentile
Chemistry
& Physics
46 AIR
99.99 Percentile



Aakarsh D Reja
4 Year Classroom

100
Percentile
Chemistry
64 AIR
99.99 Percentile



Nikhilesh Joshi
4 Year Classroom

100
Percentile
Maths
89 AIR
99.99 Percentile

Scan the
QR code to
check all
ranks



& many more...

2340

2160 Classroom + 180 Distance & Digital

Aakashians Qualified in JEE (Adv.) 2023

8

in Top 50 AIR
(All India Rank)

20

in Top 200 AIR
(All India Rank)

43

in Top 500 AIR
(All India Rank)

84

in Top 1000 AIR
(All India Rank)

Including Students from Classroom, Digital EDEL Courses across all Categories



Aditya Neeraje
2 Year Classroom

27 AIR



Aakash Gupta
1 Year Classroom

28 AIR



Tanishq Mandhane
4 Year Classroom

29 AIR



Kamyak Channa
4 Year Classroom

31 AIR



Dhruv Sanjay Jain
4 Year Classroom

36 AIR



Shivanshu Kumar
4 Year Classroom

42 AIR

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& many more...