

## All you want to know about preparing for IIT:

- For joining IIT, the candidate should write JEE exam.
- The Joint Entrance Examination (JEE), formerly the India Institute of Technology Joint Entrance Examination (IIT-JEE) is a standardized test used for admission to Engineering programs in India. The JEE, which replaced the IIT-JEE in 2013, is comprised of multiple-choice questions that test the applicant's knowledge in several engineering-related fields. The JEE is offered at two levels: JEE Main and JEE Advanced, the latter being required for certain selective programs. Like with any serious academic test, thorough preparation is key to earn a good score on the JEE.
- The JEE Main lasts three hours and consists of 90 multiple-choice questions. The exam consists of three sections: Physics, Chemistry, and Mathematics. Each section contains 30 questions. All sections are weighed equally.
- For each question answered correctly, four points are awarded. For each incorrect answer, one point is deducted. No points are awarded or deducted for unanswered questions.
- The JEE Advanced is structured differently than the main exam. The advanced exam covers the same three topics: Physics, Chemistry, and Mathematics. However, unlike the main exam, the advanced exam is divided into two three-hour long papers, each divided into three sections (one for each topic). The papers are organized as follows:
  - **Paper One:** Each section contains 10 multiple choice questions with one correct answer, five multiple choice questions with one or more correct answers, and five questions that require the test taker to provide a single-digit answer.
  - **Paper Two:** Each section contains eight multiple choice questions with one correct answer, eight questions that require responding to a reading passage, and several "matching list"-type questions.
- Though both the JEE Main and JEE Advanced cover the same three subjects (physics, chemistry, and mathematics), the precise topics covered and the difficulty of the individual questions will vary between the two tests. To gain a sense for the topics you may be expected to know for each test, consult the official test syllabi for the Main and Advanced exams, both of which are available in free PDF form from official test resources online. Below are just a few examples of the topics you may encounter on the test — these lists are by no means complete or definitive:
  - Physics: Kinematics, laws of motion, gravity, thermodynamics, electromagnetism, optics, electronic devices.

- Chemistry: States of matter, atomic structure, redox reactions, chemical kinetics, environmental chemistry, periodic groups, basic organic chemistry principles.
- Mathematics: Quadratic equations, mathematical induction, sequences and series, matrices, integral calculus, differential equations, coordinate geometry.
- The simplest, most effective way to prepare for the JEE is simply to do the test itself. Mock tests are available for free from the official JEE website. These tests mirror the actual JEE in terms of structure, format, and content and can be accessed entirely through your computer — no physical testing materials are required. Completing mock tests gives you the valuable experience of working through the JEE (and, in the process, finding your strengths and weaknesses) in advance of the actual exam.
- Note that while mock tests mimic computer-based versions of the JEE almost perfectly, paper-based versions of the JEE will require you to record your answers by hand on an official answer sheet — for obvious reasons, online mock tests can't replicate this part of the testing experience.
- Another important resource for applicants looking to pass the JEE are the question papers from past tests (freely available on the official JEE website). Unlike the mock tests, which have questions specifically made for them, JEE question papers contain the exact questions included on past exams, making them a very valuable resource.
- As the JEE is relatively new (the exam replaced the old IIT-JEE in 2013), only question papers from 2014 are available. However, since the test is offered multiple times per year, as of late 2014, eight papers have been published, offering plenty of practice material. In addition, question papers for the old IIT-JEE (also available online) will cover most of the same topics.
- Over time, the JEE can change and has changed. Tests may be rescheduled, results may be re-interpreted, and the topics covered may change. To ensure that you have the absolute best chance of doing well on the JEE, stay up to speed with official JEE bulletins, which are published as they are released on the official JEE website.
- As an example of the sort of valuable information that may be released in a JEE bulletin, one recent bulletin contained important information on test takers' eligibility for admission to various Indian engineering and architectural programs.
- The official JEE site is generally the most reputable source for test prep materials, but it is far from the only place to find sample questions, practice tests, and other valuable resources. A variety of third-party organizations and agencies also provide JEE test prep materials (some are for free; others cost money). However, since these third parties may not always be reputable or certified, it's

important to use discretion and only rely on sources that appear legitimate when studying for the JEE.

- One great source for JEE test questions is Khan Academy. This relatively well-known academic site offers free educational material on a huge variety of topics and even has a page dedicated specifically to JEE test prep
- In addition to online resources, JEE test prep materials are also available in physical form. Test prep books, brochures, pamphlets, and more are available at academic bookstores. The price (and legitimacy) of these materials can vary — try to choose materials that are officially certified by JEE-administering agencies and contain practice tests, questions from old tests, and so on.
- It's also a wise idea to pick books that contain full solutions with explanations (and not just answers) for every question — this way, if you don't understand a question, you'll get the luxury of being walked through the question step-by-step, rather than having to piece the solution together based off the final answer.
- When it comes to preparing for the JEE, the earlier you start, the better. Studying for the JEE is a serious undertaking, especially if you plan on taking the JEE Advanced. It's also one that can have a significant impact on your professional future — a great score on the JEE can make it much easier to get into the engineering program of your choosing. For these reasons, some people choose to start studying years before they'll need to take the JEE. Though this probably isn't necessary if you've been attentive to your studies, for the best score, you will probably want to begin as early as practical — at least a few months before your test date.
- As you study for the JEE, you'll want to devote some time to every topic, even if you're already confident that you know some of them very well. However, to get the best score possible, you'll want to devote most of your time to the topics that you're not confident in. Doing this ensures you get the biggest improvement possible from your studying effort.
- If you're not sure how to allocate your time, try reviewing your grades from school — spend your most time studying the subjects that you get the poorest marks in.
- In the months before the JEE, you want to make the most of your time — you don't want to waste an hour (or more) fooling around for every hour you spend studying. To avoid distractions like TV, video games, and other forms of digital entertainment, remove them from your life temporarily. For instance, if you're having a hard time giving up your video games, you may want to try leaving your game system at a friend's house until the test is over.
- Try to use the internet only for study purposes. Don't waste your study time on games or social networking until the exams are over. If you can't seem to overcome these online distractions, try

downloading and installing a productivity app (most browsers will have these available for free in the browser store).

- When you practice individual problems in preparation for the JEE, a good rule of thumb is to take as long as you need to fully understand the problem and answer it correctly. However, when you take entire JEE practice tests, it's a smart idea to give yourself the same 180-minute time limit you would normally have to finish the test. Doing prepares you to account for the time limit when it will matter.
- You don't necessarily need to be able to complete the entire test within the time limit the first time you try to do so, but you should work to increase your speed so that you're able to finish the whole test in 180 minutes (with as few questions skipped as possible) by the date of the test.
- Past a certain point, additional studying prior to the JEE can be harmful. If you must give up eating or sleeping properly in the days prior to the JEE to squeeze in last-minute studying, you're probably hurting your chances of getting the best grade that you can. Neglecting these basic physical functions can leave you drowsy and distracted on the day of the exam, making it tricky or even impossible to do your best. Take the time to relax, eat normally, and get plenty of sleep in the days before your test — if you've been studying all along, it's almost certainly the smartest thing to do.
- This advice isn't unique to the JEE. Neglecting your physical needs (especially sleep) before any test has been demonstrated to lower your score on average.

**Info from JEE website:**

- The Ministry of Human Resource Development, Government of India has notified following two changes in the JEE pattern from 2017:
  1. There shall be no weightage for the 12th class marks in calculating the ranks in the JEE (Main) examination,
  2. For the candidates to qualify for the admission in the IITs/NITs/IIITs and such other CFTIs whose admissions are based on the JEE (Advanced)/JEE(Main) ranks, they should have secured at least 75% marks in the 12th class examination, or be in the top 20 percentile in the 12th class examination conducted by the respective Boards. For SC/ST students the qualifying marks would be 65% in the 12th class examination.
- The Paper-1 (B. E./B. Tech.) of JEE (Main) will also be an eligibility test for the JEE (Advanced), which the candidate must take if he/she is aspiring for admission to the undergraduate programmes offered by the IITs.
- Since there is no weightage of class 12th marks in calculation of ranks in JEE (Main) - 2018, so, the roll number of class 12th is not verified this year by the CBSE, however, the candidates should show

the marksheet of class 12th (regular/improvement) with 75% marks at the reporting centres at the time of counselling/admission in IITs/NITs/IIITs and other CFTIs.

### Usual Questions that come up:

- What tactic should I follow? What should I keep in mind while preparing?  
*First, if you have finished thoroughly with NCERT and done some advanced study, it is better to take the test series course in a reputed coaching institute. Look for shortcut tricks. Practice as many quality questions as you can.*
- Is the 12th board exam's mark important for JEE?  
*Yes. You must score at least 75% in your 12th board exams to be eligible for selection. JEE keeps changing the criteria, so it's best to check on JEE website for the latest*
- How can I prepare for it from the 10th standard?  
*Unfortunately, you can't. While obviously you can clear your basics, doing the XI and XII Syllabus while in tenth is not a wise option, as it may lead to unnecessary stress in life and there is a risk of not preparing the foundations adequately in 10th standard, so focusing on those and getting them into good shape is the best form of preparation.*
- Should I join a big institution, or can I study by myself?  
*Joining an educational institute gives you an extra edge. It is not required for all, but having a coaching institute helps you to increase your performance level. Ninety six percent of those who have succeeded in IIT have been attached to some coaching institute.*

### Tips:

- Do a lot of sums on each topic and try to solve problems faster.
- Emphasize on clearing your concepts rather than just solving problems.
- Don't hesitate to ask questions in class or clear your doubts.
- Firstly, finish off the topics which have a small domain but greater weight. It will assure a 100% probability of the questions from these topics being easily solved and hence earning maximum marks in questions from these topics.
- Remember that you know yourself better than anyone else.
- Take breaks. Do not study all day. Read, play, enjoy with your friends. These will help in long-term in keeping you relaxed and stress-free.
- Start the preparation right after you pass class 10 boards. If you start late you may not be able to cover the entire syllabus properly.
- Group study occasionally can help you to further clarify your concepts.

- Make a routine of every subject. This will help you in giving time to each subject.
- Try to avoid social networking sites like Facebook and all until the exams are over as they prove to be a major distraction.

**Warnings:**

- Whatever happens, don't take JEE too seriously. Even if you don't get in as an undergraduate you shall have another chance to join as a postgraduate student. Remember, missing out on JEE isn't the end of the world.
- Never ever adopt your classmate's method of studying. Generally, students get influenced by their peers. Everyone is unique and you should study according to your comfort for best concentration.
- Don't ignore schoolwork, especially after the new rules are in place.
- Don't keep your work pending. You might not be able to catch up later.
- Do a self-assessment - take mock tests regularly. Spend some time on the weak areas as noticed from the mock tests. Track your progress in a journal to notice what you have achieved.

**Key website for info on JEE:**

<https://jeemain.nic.in/webinfo/Public/Home.aspx>

<https://jeemain.nic.in/WebInfo/Handler/FileHandler.ashx?i=File&ii=88&iii=Y>

**For any further questions, please call** Kamali Jeyakumar, 9444866650, [sjkmani@hotmail.com](mailto:sjkmani@hotmail.com)