

## JEE Main 2015 - Self Study Plan

Joint Entrance Examination (JEE) Main is one of the major entrance exams for engineering conducted by the **Central Board of Secondary Education (CBSE)** for admissions into various engineering colleges in India. For admissions into the technical and professional degree courses in entire country, the POA 1992 (Program of Action) was formatted under the NPE 1986 (National Policy on Education).

For Engineering and Architecture programs Government of India made resolutions on 18th of October 2001 where 3 exams were to be conducted for various state and national level engineering institutes. AIEEE & IIT-JEE for the National Level institutions, SLEEE (State Level Engineering Entrance Examinations) for admissions into state level engineering institutions.



In the year 2003 the AIEEE (All India Engineering Entrance Examination), registered a record of 12.7 lakh candidates appearing the entrance exam. This was the highest ever number of candidates registering for the entrance exam conducted by CBSE. Later in the year 2012, CBSE declared JEE as the common exam and it also replaced AIEEE and IIT-JEE.

The JEE is conducted in 2-phases, JEE-Main and JEE-Advanced. Candidates clearing the JEE Main are only eligible to appear the JEE advanced, and candidates clearing the JEE Advanced are then eligible for admissions. More than 1.5 million students appear for the JEE every year and this is enough to judge the seriousness of the exam and how much it takes to prepare for it.

### Participating Institutes of Joint Entrance Exam (JEE):

Institutes	Number of Seats
17 IITs (Indian Institutes of Technology), IIT-BHU, ISMU	More than 10,000 seats
30 NITs (National Institute of Technology)	More than 22,000 seats
5 IIITs (Indian Institutes of Information Technology)	More than 2,000 seats
6 IISERs (Indian Institutes of Science Education & Research)	More than 2,500 seats
1 IIST (Indian Institute of Space Science & Technology) and 3 ISIs (Indian Statistical Institutes)	More than 500 seats
More than 1000 PETs State Level Colleges	More than 5 Lac Seats
More than 2,500 other institutes participating in JEE	More than 6 Lac seats

### Eligibility criteria for JEE Main

The candidates willing to appear for the JEE main must have to be a citizen of India and has completed his class 12th board exam in English mode, with Physics and Mathematics subjects as compulsory and chemistry/biotechnology as optional. [For detailed eligibility criteria of the JEE Main please click here.](#)

### Syllabus

As the JEE Main exam is one of the major exams and requires a lot of time and patience to prepare, in such situations the syllabus helps a lot. Preparing strictly according to the syllabus helps you save your time in which you can revise for a better understanding. The syllabus for JEE main 2015 is mostly as the syllabus of class 12th board exam and hence candidates are required to be thorough with the class 12th course structure and clear the basics. [Click here to download the complete syllabus of the JEE Main 2015.](#)

### Paper pattern

Before initiating the preparation for JEE Main 2015, let us first have a view of the paper pattern and the question pattern.



## JEE 2015 Exam Paper Pattern

Both offline and online mode

Duration: 3 hrs

For B.E/B.TECH courses

Objective type questions with equal weightage to Physics, Chemistry & Mathematics

Multiple Choice Questions

Negative marking - for each incorrect response, one fourth ( $1/4$ ) of the total marks allotted to the question

## Paper Analysis



### Mathematics

Topics	2011	2012	2013	2014
Sets, Relations and Functions	2	2	2	1
Limits, Continuity & Differentiability	1	2	3	2
Application of Derivatives	3	3	2	3
Indefinite Integrals, Definite Integrals & Area under the curve	2	2	2	3
Cartesian coordinates & Straight Line	1	1	1	2
Circles	1	1	1	1
Conics	3	1	1	2
Quadratic Equations, Inequalities, Progression	3	1	1	3
Complex Numbers	1	2	2	1
Binomial Theorem, Exponential & Logarithmic Series	1	1	1	1
Permutation & Combination	1	2	1	0
Probability	2	2	2	1
Vectors and 3d	1	2	2	3
Differential Equations & Properties of Triangles	1	1	2	1
Trigonometric Ratios, Equations, & Inverse Circular Function	1	2	1	1
Heights and Distances	0	0	0	0
Matrices & Determinants	2	2	2	2
Mathematical Logic	1	0	1	2
Statics & Dynamics	0	0	0	0
Statistics	1	1	1	1

### Physics

Topics	2011	2012	2013	2014
Units, Dimensions and Measurement	1	1	1	1
Kinematics	2	3	2	1
Newton's Laws of Motion	0	1	0	1
Work, Power and Energy	1	1	0	1
System of Particles	1	2	0	3
Gravitation and Rotational Mechanics	1	1	4	1
Properties of Matter	1	1	2	2
SHM, Oscillations	1	0	2	2
Mechanical Waves and Sound	2	1	1	1
Ray Optics and Wave Optics	3	3	4	2
Heat and Thermodynamics	5	1	4	3
Electrostatics	3	4	2	3
Current Electricity	1	1	3	1
Magnetism, Magnetic Effects of Current	2	1	1	2
EMI, AC Circuits and EM Waves	1	3	1	4
Modern Physics	5	6	3	2

Chemistry				
Topics	2011	2012	2013	2014
Atomic Structure and Classification	3	3	3	1
Chemical Bonding	1	0	3	2
Stoichiometry	0	0	1	1
States of Matter	1	3	2	1
Chemical & Ionic Equilibrium	1	4	1	2
Chemical Kinetics & Nuclear Chemistry	1	2	2	1
Chemical Thermodynamics	2	2	1	1
Solutions	2	2	2	1
Electrochemistry	1	2	1	4
General Organic Chemistry + Functional Group I	5	6	2	3
Organic Chemistry – Functional Group II	2	1	2	3
Organic Chemistry – Functional Group III	1	1	2	2
Chemistry of Representative Elements	3	0	2	1
Transition Elements	2	0	1	1

Coordination Compounds & Organometallics	2	2	4	5
Surface Chemistry	1	0	0	1

## Study materials

Collect all the essential books for preparing, and make sure you do not create a library for that! Choose some of the vital books that carry chances of majority of questions to be asked from. Some such books are mentioned here:



## Mathematics

NCERT Mathematics Part I and II is the prime book to initiate and later students can shift on to R.S. Agarwal and other practice materials. The important topics such as geometry and trigonometry has to be covered from **Tata McGraw Hill** as it has all the important questions expected in the JEE Main. Statistics can be covered from again NCERT and S.Chand as it carries the detailed formulae and usages of it mentioned briefly.

## Physics

The students shall initiate the preparation from the NCERT part I and Part II, in order to clear the basics and make a strong foundation for further detailed and analytical part. It is always advised to read the complete chapters and clear every concept perfectly before you initiating the problem solving. Later on the students can try out for the **H.C.Verma** Physics book which is the most important book for Class 11 and Class 12 students.

## Chemistry

As Chemistry is divided into Organic and Inorganic, Physical and Numerical, there has to be more than 2 or 3 books needed to cover it completely and thoroughly. For Physical Chemistry, students must refer the **O.P. Tandon** as it comprises all the basics of Physical Chemistry. **P.Bahadur** (G.R.Bathla & Sons) has all the major contents of Numerical Chemistry explained with problems and their solutions. For Inorganic Chemistry R.K.Gupta is said to be one of the best book to refer. [For More Books please click here](#)

## Papers

Students should also prepare from various sample papers and practice papers available online and offline. These are created by some of the very experienced professionals with years of experience who know the complete in and out of JEE and entrance. Students can easily find the **past year JEE question** papers online and offline both. It is suggested to prepare as many you past year papers you can as it gives you a thorough understanding of the subject and the form of questions expected



## Time Management

Spend your important time on productive study by focusing on the syllabus and your strengths and weaknesses. The time management shall be done by using the right techniques, tools and skills to accomplish specific tasks and cover the topics that trouble you along with preparing for the better ones much better.

Candidates can hang a calendar in their room and can include their schedule in it as to prepare which subject initially and which one to be done later.

Candidates must plan their time for every activity, study, revision, breaks and also for the Mock Tests

By allotting time specifically for recreational activities such as sports, exercise or entertainment candidates can boost and a refreshment for the preparation

Candidates can also make the weekly schedule and must keep the deadlines for the subjects. For instance,



Monday and Tuesday the important formulae of physics and Mathematics shall be studied with practical implications.

Candidates can also make a particular day in the entire week to revise all that has been studied and can also appear the mock tests on that day to figure out the portions left to be studied.



## Important Preparation Tips

The JEE main is one of the toughest exam to crack, as it gives chance to take admission in some of the top most engineering institutes of the country. While initiating the preparation for the JEE Main candidates must understand the requirement of the paper. The mindset of every candidate must be different and hence they shall not compare theirs with that of others. The nervousness regarding the exam is obvious but then they need to learn how to overcome the nervousness and crack the JEE Main 2015.

### Organize your study

Have your workplace very much organized, with a proper planner for study.

Plan everyday activities based on their level of importance.

Figure out the proper time for study in the entire day and prepare the tougher subjects during that time.

### Schedule your day

Plan every task of your before and execute accordingly. Consider combining the activities and do some multi-tasking if possible.

Divide the study by forming a study plan keeping the subjects according to the time of the day you need to study them. It is obvious that this might be very boring at times and hence altering the schedule can help well.

Make sure to take regular breaks and keep separate time for that while preparing the schedule.



### Prioritize your tasks

By Prioritizing the subjects of the JEE Main on the basis of difficulty in solving can help a lot.

Students can use ABC Technique for prioritizing the tasks:

A – Very urgent and important tasks

B – Important but not urgent tasks

C – Neither urgent nor important tasks

Ignore postponing any tasks, as you never know which might trouble you and when!

### Smart techniques for Effective Study

Study environment has to be very much calm and positive as it gives boost while preparing

Clarify the doubts at the earliest, the more doubts gets cleared the chances of excelling in that particular portion gets increasing

Divide the bigger tasks into smaller and manageable tasks

### Set goals that are realistic:

Setting up of the vision that is achievable and not exaggerating your potential can help a lot while preparing for entrance exams.

Never deviate from your goals set by having a constant level of concentration

Not to be confused about the priorities

Be positive, always!



## Analyze your performances

Candidates can take various practice tests and exams which are available both online and offline in frequent interval as it analyses their performances and helps them prepare well.

This builds up the confidence and notifies the weaker sections which can be worked out.

If the scores in these practice tests are not satisfactory, the candidates need not to be disappointed and they can keep on practicing more and more such question from various sources.



## Revision Plan

By preparing you ensure half-success, and by doing enough of revision to recall all that you have prepared, ensures you complete success, hence prepare and revise every day. Whatever you learn or prepare today must be practiced and revised every day. Keep an hour or two for a quick revision of all that studied till date.

Practice the solved papers again and again, and improvise your time taken to solve questions. Also practice similar question to have better understanding.

Focus on your weak points and manage your time according. Revise the theory subjects that you find difficult at that particular time of the day when you are most fresh and energetic.

**Contact askITians experts by filling the form below:**