

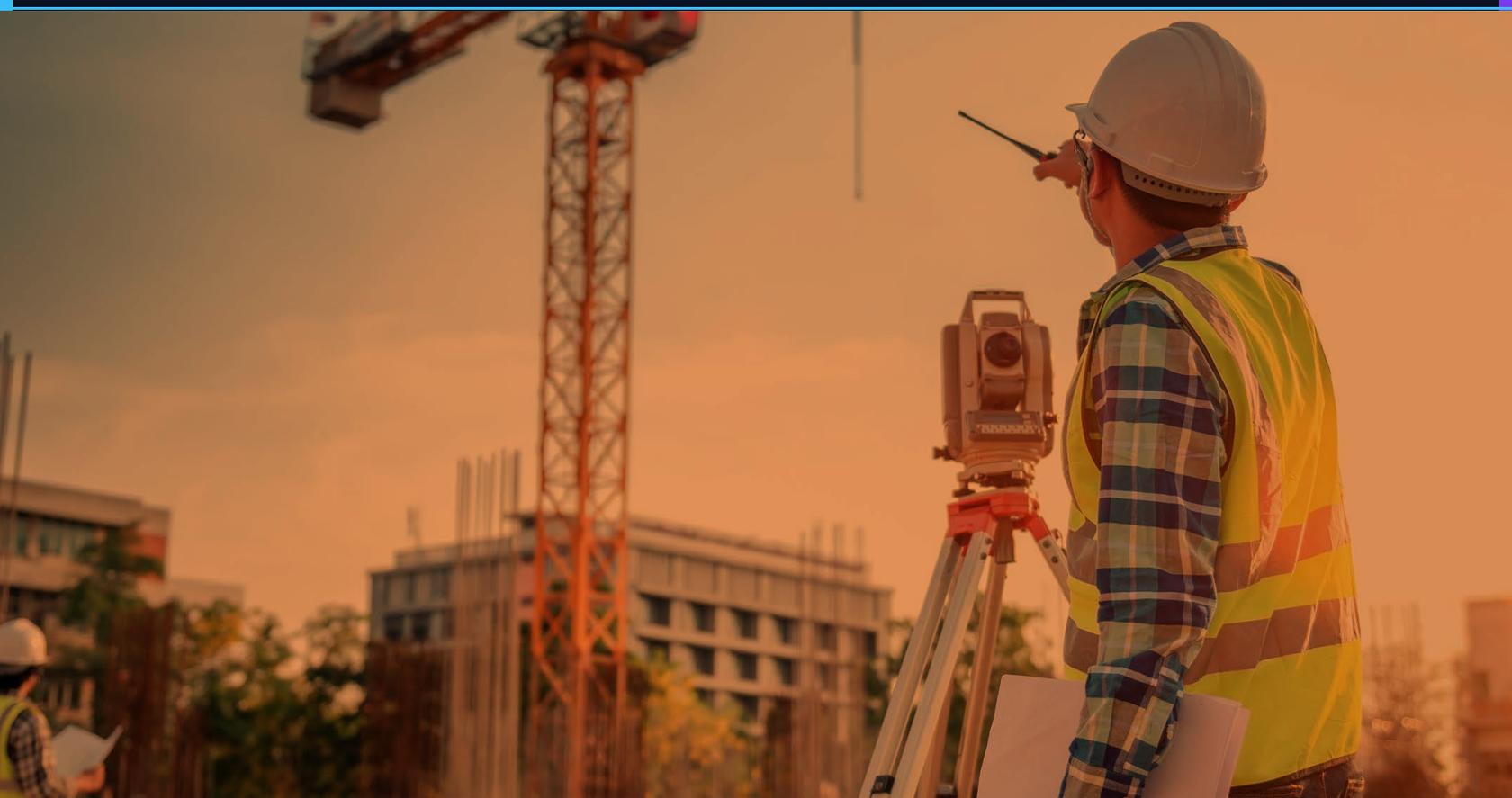
# SUCCESS PLANNER 2024 *for* JEE

ATDB.uno



- Exam pattern
- Trend
- Strategy
- Success Mantra





# PREFACE

## ATDB.uno

Education can be a life-changing point in every child's life. The stream and career that is to be chosen in high school and later in life need a strong foundation base at a primary and secondary level. A foundation is an early staple for aspirants who are not only preparing for the NEET examinations but have far-reaching goals of other competitive examinations ahead of them. With several years in the field of education, Disha publication has been working at various levels to be the one-stop solution for quality education. In this book, we intend to form a strong base for any future competitive exam candidate and help them recapitulate the latest pattern and syllabus. This book also mentions the study techniques and preparation tips for students with illustrative examples added for better understanding and to ensure they build up their skills in a motivated manner.

# TABLE OF CONTENTS

S No.	Name
1.	The Different Strokes
2.	How to make a plan that works?
3.	How to improve concentration power?
4.	How to sharpen problem solving skills?
5.	What is a Misconcept?
6.	Frequently Asked Questions <ul style="list-style-type: none"><li>• Is IQ important factor in Success?</li><li>• How some students do well even without studying hard?</li><li>• How to relax?</li><li>• How to reduce anxiety? – Even famous people do it.</li><li>• Other methods of reducing anxiety</li><li>• Importance of Notes</li><li>• When to start preparing?</li><li>• Is coaching necessary?</li></ul>
7.	JEE 2022 Statistics
8.	Candidates appeared in JEE 2023
9.	JEE Main Score Vs Percentile Vs Rank 2023
10.	JEE Main 2023 Toppers
11.	JEE Main 2022 Toppers– State Wise
12.	JEE Advance Marks Vs Rank
13.	Previous Year JEE Advanced Marks Vs Rank Analysis
14.	JEE Topper of last 15 Years
15.	JoSAA Statistics
16.	JEE Mains 2022 Cut off
17.	JEE Advanced 2022 Cut off
18.	JEE Advanced 2023
19.	Trend Analysis for JEE Main (Year 2011–2021)
20.	JEE Toppers' Interview

Preparing for JEE/ NEET?  
Want to know the right strategy to attempt paper?  
Looking for resources to start preparation?  
Want to sharpen your problem-solving skills?  
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Join my FREE Course "Toppers Study Hacks", specially curated for students who want to adopt the techniques that toppers have followed in clearing JEE/ NEET. The course talks about:

- Planning and Goals Setting
- Sharpen problem-solving skills
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**10 motivational videos with easiest strategies to pave your way to becoming more result oriented.**

The course content is based on the real success stories of more than 100 Toppers who cleared Boards/ JEE/ NEET/ UPSC in the last 15 years and got interviewed by one of the bestselling authors and a student mentor Mr Avinash Agarwal.

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# The Different Strokes

Same syllabus, same students, same hard work, but different EXAMS!!

Let's look at the basic difference between Boards and Competitive Exams-

## Board Exams vs Competitive Exams

Boards Exam	Competitive Exam
The questions are focuses on concepts to test whether you know the fundamentals or not	The questions are focuses on the application of concepts to real life situations and tests whether you can apply these fundamentals to real life situations or not.
Good writing and presentation skills are very important apart from answer writing.	Deep understanding of concepts must reflect in your answer writing is essential
Absolute marks are important i.e. your total percentage matters like 80% or 90%	Relative marks/ Percentile rank is important i.e. how many students have scored more than you.
It has no limitations to seat allotment hence a student with 88% or 87% are treated equally intelligent and successful.	Because of limited seats, it's a cut throat competition where students can miss an opportunity by just one marks.

Now let us understand, "How it is that same syllabus is being asked differently in different exams", so that your efforts are uniformly aligned. One must note that there is absolutely no difference in the concepts. The difference comes in the way question has been asked in these exams. For example:

## I : Projectile motion

### What they ask in CBSE ?

- Q1 (a) What is a Projectile.  
 (b) Find out the maximum range & maximum height for a given velocity ( $u$ ) & ratios there of.  
 (c) Find the range of a Projectile falling from a horizontal table etc.

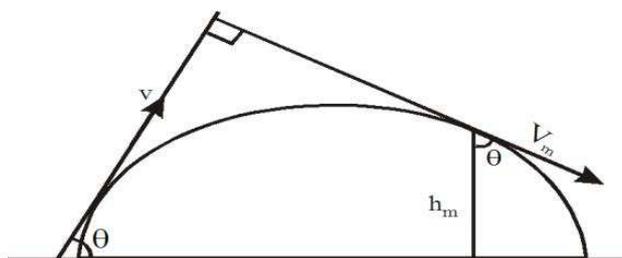
### What they ask in JEE Mains/ NEET ?

- Q1 (a) What is the minimum Kinetic Energy of the projectile with initial velocity ( $u$ ) & angle of projection ( $\theta$ ), mass of the object being ( $m$ ) ?  
 (b) How much time it would take to reach a height 'h' ?  
 (c) What should be its velocity at height 'h' ?

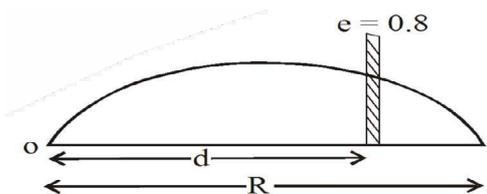
[HINT: Calculate from basic concepts. No direct formula used.]

### What they ask in JEE Advance?

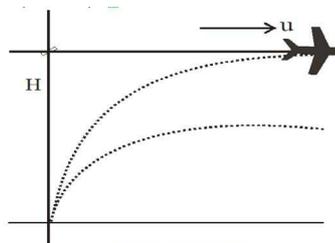
- Q1 (a) What is the height ( $h_m$ ) & velocity ( $V_m$ ) of a projectile when angle between the initial velocity and velocity at  $h_m$  is perpendicular to each other.



- (b) If a projectile has a range of 'R' & there is a high wall at a distance (d) from the point of projection, at what distance will the projectile strike on the ground after being reflected from the wall with inelastic collision (e being 0.8).

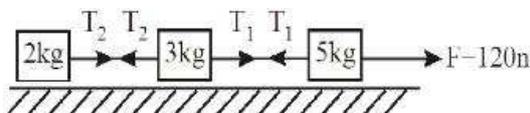


- (c) What should be minimum velocity of projectile so that it hits a aeroplane at a height (H) which is moving horizontally with a velocity of u

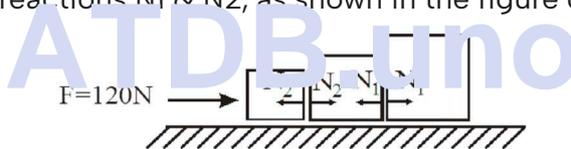


**What they ask in CBSE?**

- Q2 (a) In the given figure find the tensions T1 & T2 ?

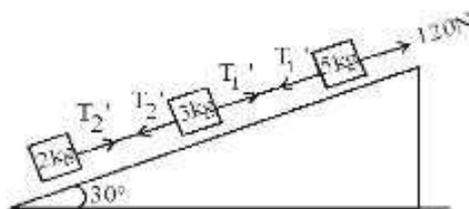


- (b) What are the normal reactions N1 & N2, as shown in the figure given below ?



**What they ask in JEE Mains/ NEET ?**

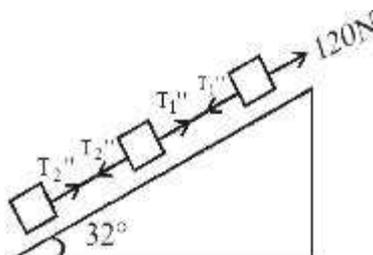
- Q2 (a) Calculate the Tensions & , when the three blocks, joined with the help of a string, as shown in the figure, are moving upwards with the help of a force of 120N.



- (b) Find the ratio of Tensions & when the force of 120N is applied downwards only.

**What they ask in JEE Advance?**

- Q2 (a) Find the ratio of & at an inclined plane of angle of  $32^\circ$ , when pulled with a force of  $F = 120\text{N}$ , upward.



[Hint: Force drops in ratio of masses & independent of angle. Hence  $T_1 = 60\text{N}$ , &  $T_2 = 24\text{N}$ ]

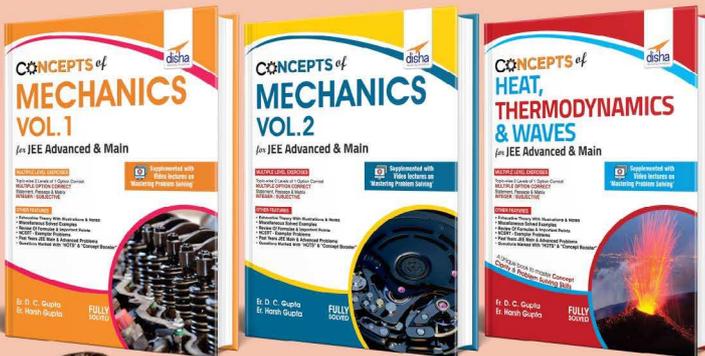
# Problem Solving Videos for JEE Advanced Physics

by Popular IIT-JEE Faculty, D. C. Gupta

**Facing  
Difficulties  
in Physics  
Problems**

 <p>1.1 Physics <b>Mechanics Vol 1</b> Chapter - Units and Measurements Page No. - 39 Example - 23</p> <p><b>25 Videos</b></p>	 <p>2.1 Physics <b>Mechanics Vol 2</b> Chapter - Rotational Mechanics Page No. - 20 MI of Hemisphere</p> <p><b>23 Videos</b></p>	 <p>3.1.2 Physics <b>HEAT, THERMODYNAMICS &amp; WAVES</b> Chapter - Heat Transfer Page No. - 194 Article - 4-10</p> <p><b>20 Videos</b></p>
 <p>4.1 Physics <b>Electrostatics &amp; Current Electricity</b> Chapter - Electrostatics Page No. - 21 Example - 16</p> <p><b>20 Videos</b></p>	 <p>5.1 Physics <b>Magnetism &amp; Electromagnetic Induction</b> Chapter - Magnetic Force on Moving Charges and Conductor Page No. - 16 Example - 8</p> <p><b>16 Videos</b></p>	 <p>6.1 Physics <b>Optics &amp; Modern Physics</b> Chapter - Reflection of Light Page No. - 21 Example - 22</p> <p><b>16 Videos</b></p>

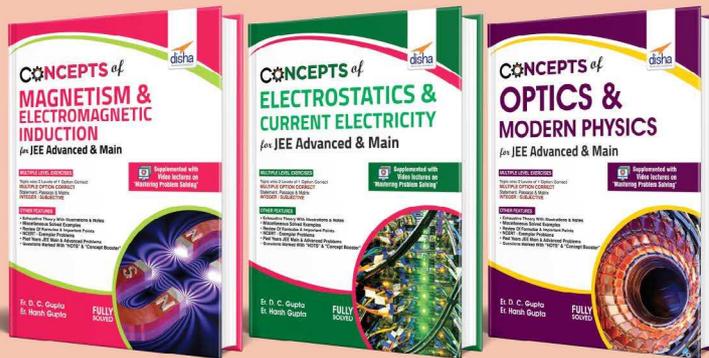
These Videos are part of the popular **Concepts Series** written by **D. C. Gupta**



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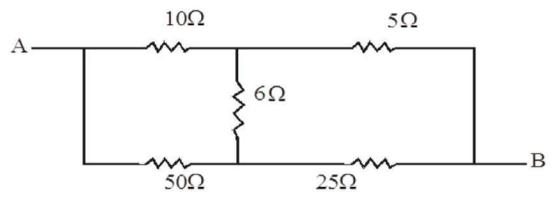
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## Example III : Current Electricity

**What they ask in CBSE?**

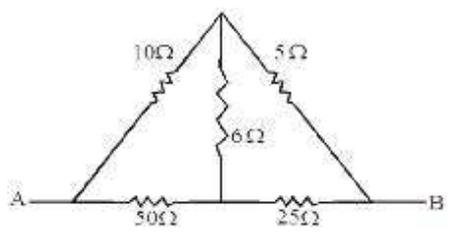
Q3 (a) Find out the resistance between point A & B.



[Hint: Resistance 6W is ineffective using Wheatstone bridge principle. ]

**What they ask in JEE Mains/ NEET ?**

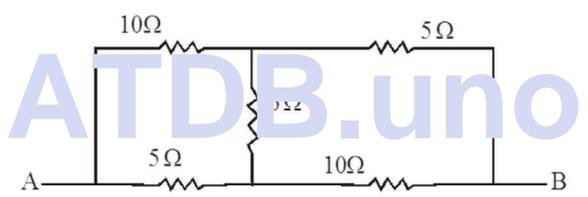
Q3 (a) Find the equivalent Resistance between A & B.



[Hint: Simplify using Wheatstone bridge principle.]

**What they ask in JEE Advance ?**

Q3 (a) Find the Equivalent resistance between A & B.



[Hint: Use symmetry & apply Kirchoff's law & logic ]

From the above examples, we conclude that:

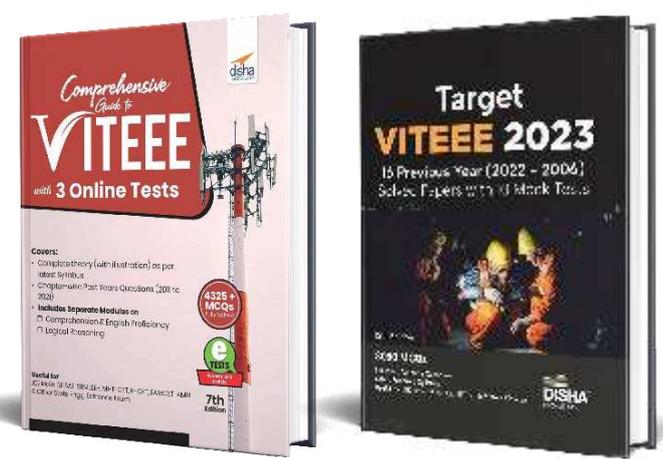
CBSE asks straight forward questions to test your knowledge.

AIEEE asks the application based questions with simple calculations to judge your understanding of concepts

IIT-JEE asks questions with smart calculations to judge your analytical ability & in-depth knowledge of Concepts

**Syllabus is same. Topics are same. But, Questions-level differs.**

# Books for VITEEE



# For the better understanding, go through this analogy of VEHICLE DRIVING CAPABILITY

## CBSE asks

What is accelerator, clutch, brake, steering, self-ignition & steps to use it in driving.



## AIEEE asks

Okay, so drive straight, then left, right and backwards. Some times, they can also ask the role of clutch & hydraulic braking systems.

## IIT-JEE asks

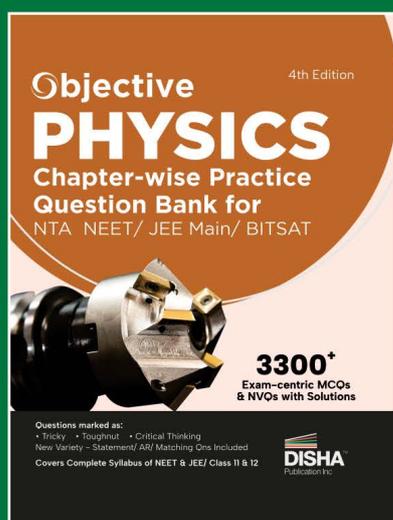
Let us take our vehicles on the road & drive through a stretch of 10 km through several traffic conditions, bad patches, and at various intersections. Those who reach first with reasonable time know the driving well & the rest get expelled.

That is Selection on the basis of application Skill.

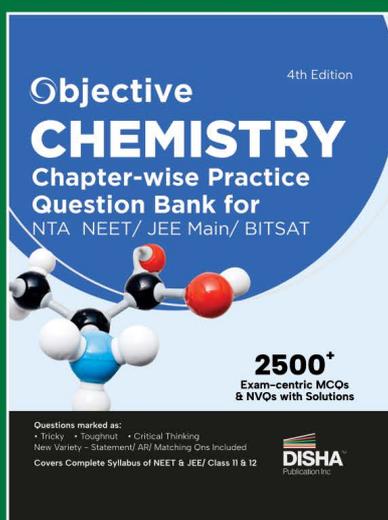
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## ONE BOOKLET TO Ace 4 Exams

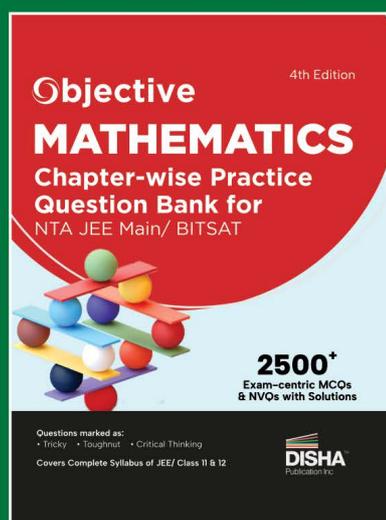
### CBSE 11 & 12 | CUET | JEE Main



**Chapter - 29**  
**MCQs - 3300**  
**NVQs - 200**



**Chapter - 30**  
**MCQs - 2500**  
**NVQs - 200**



**Chapter - 29**  
**MCQs - 2500**  
**NVQs - 300**

# How to make a Plan that works?

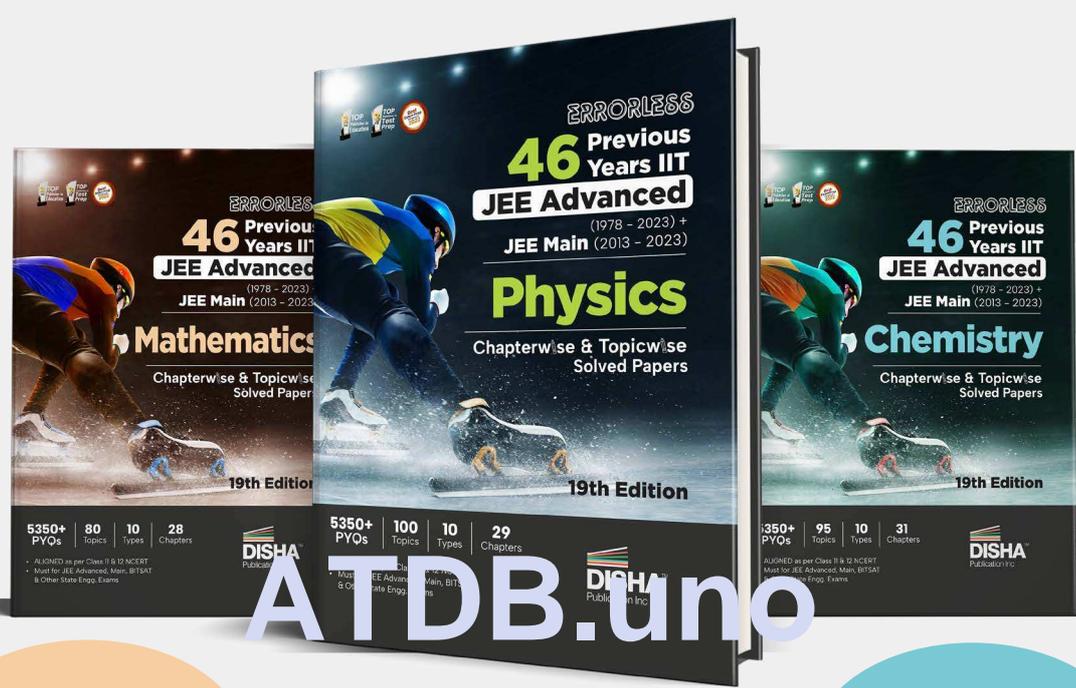
So, planning is important but the most important part is to come up with a plan that works. Most people fail at this because they give up when the first attempt at planning does not work out perfectly. The best thing to do is to expect changes and be ready for the process. Needing to make changes in your plan does not mean failure – it means inexperience at planning. Quitting all planning when things go off the rails – THAT really is failure!

Very often students plan with great vigour in the beginning. Once they start implementing the plan, they find that the plan does not work. After a short period of time the plan is consigned to the dustbin. So the question arises what is the secret of good planning?

## Good planning means

- Consult your seniors about how they started their preparation. Study the trend of previous year question papers & draw marks distribution of each subject to find out which topics are most important & which are least. Give priority to important topics & try to put them in early stages of your preparation to avoid any possibility of them being left out.
- Divide your entire time into periods of one month each and plan to complete a block of lessons by the end of each period. Set up milestones after every period to find out whether the objectives have been met or not. Chart out this plan on a calendar clearly and place it above your study table.
- Do not overestimate the time you have. If you actually have the extra time you can always do more studying, but if you plan more than what you actually have, you feel depressed and your entire plan might go haywire. You are also advised to leave a little gap (free time) in between two periods so that if any module gets delayed you don't have to change the whole plan.
- Set study goals for each day, each week & each month: Remember the characteristics of good study goals: specific, reasonable, verifiable and achievable. If you have a written set of easy-to-start and soon-to-be-finished study goals, procrastination is much less likely. It's the huge daunting tasks that are easy to put off. A small goal that will be finished in 10 minutes and will be a contribution to a larger goal is one of the best procrastination beaters.
- The plan should not be too detailed and neither should it be too sketchy. For example a plan which goes down to the level of say 10 minutes is too detailed a plan and cannot be implemented. On the other hand a plan, which is very sketchy and deals only at the topic level is too high level. Ensure that the plan is balanced.
- Students sometimes plan in such a way that is no scope for errors. For example they may have scheduled for 12 hour of study a day. Now if they go out of schedule, there is a little scope for accelerating so as to catch up with the schedule. The secret is to have say 20–25% flexible unallocated time. Students can then use this to catch up.
- It is important to review the plan after working it out. It is also important that a student tries out the plan and sees how it works before adopting it. Students may have missed out some activities or estimated some activities incorrectly. If they perform a mock run, the estimates will be more accurate.
- Study soon after lecture type courses: Retention and understanding are aided by a review of your lecture notes immediately after class ; e.g., one study showed that students who wrote a 5-minute review test following a lecture remembered one and a half times as much material when tested 6 weeks later as students who did not review, when tested the next day .
- List and do tasks according to priorities: remember Parkinson's law that "work expands to fill the time available for its completion." If you allot 2 hours to read 10 pages, it'll probably take you 2 hours to complete this 30 min. task. What do toppers say.
- Discover how long to study: as a rough starting guide, for every hour in class you should plan to study for two hours outside of class. Then, adjust up or down as necessary to achieve your goals.
- Your first short-term goal will be the first completion date. If you concentrate and complete the

# Get Set Go for **JEE ADVANCED 2024**



**28 Chapters**  
**80 Topics**  
**5350+ MCQs**

**29 Chapters**  
**100 Topics**  
**5350+ MCQs**

**31 Chapters**  
**95 Topics**  
**5350+ MCQs**

**USP**  
**100%**  
**Coverage**

- Past 46 years of IIT JEE/ JEE Advanced Papers
- ALL JEE Main Papers (2013-23)
- Chapters & Topics aligned as per Class 11 & 12 NCERT
- Answers with detailed solutions for Conceptual Clarity

**Must have for JEE Advanced, Main,  
BITSAT & other Engg. Exams**

pre-determined number of lessons by that point of time, you will be safely on your way to achieve your long-term goal.

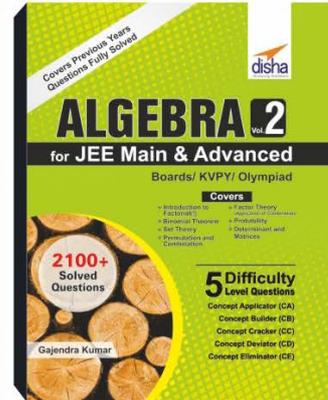
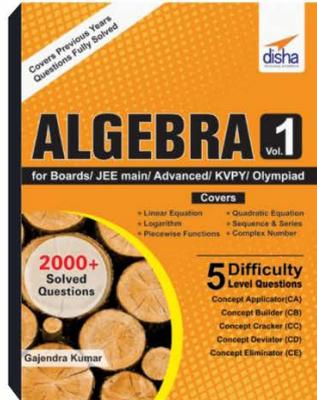
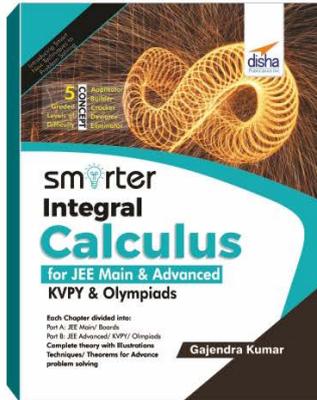
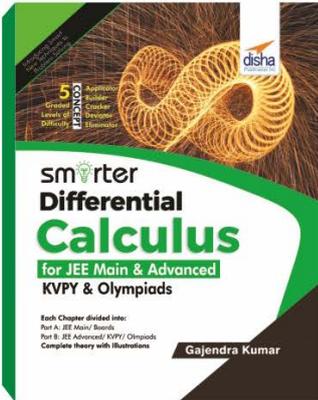
## While making a daily plan keep following things in mind:

- While doing time planning for a day keep following things in mind
- The longest study period should not exceed 3 hours. It is hard to concentrate for longer periods so after 3 hours a substantial break is a must.
- A break of 5 to 10 minutes is needed after every 45–60 minutes of study. After concentrating for that long, experiments show that our brain momentarily needs time to assimilate and consolidate the material it has received. During the rest period, a change in activity or posture is desirable. A walk around the room, stretching your arms, a light refreshment is enough to restore your energies and recharge your concentration.
- Remember shorter periods are fine for studying notes and memorizing materials. Longer periods are often needed for problem solving tasks and for writing papers. Breaks relieve stress and help sustain motivation and provide a transition period when switching subjects
- Determine the time of day that is best for you to study.
- When you are not fully alert in the afternoons, sleep for an hour and then study.
- At the end of each day reflect on what you did and what you need to do on the next day.
- Highlight what has been left undone.
- Cover difficult subjects when you are fresh. What do toppers say
- If you have really adhered to your schedule as planned, the free-days before the beginning of the second phase is your reward for hard work. As each deadline is met, it will instill confidence in you that you are on your way to the final goal. This will boost your morale and determination to succeed.
- So planning brings clarity of what you want to study and accomplish and helps in improving study efficiency in the following way
- It helps overcome procrastination by eliminating the time wasted in deciding what to work on and hence prevents worry.
- It helps keep you on task while you're working; having a specific objective makes it harder to rationalize quitting before you've achieved it.
- It generates a feeling of progress and success when you complete a concrete goal. This kind of success can easily begin to cascade
- It helps break large, daunting tasks into more easily managed chunks of small tasks.
- Or, in other words, it motivates you and at the same time keeps you focused on each study session.

## Whereas if you do not make a Plan:

- you do not succeed in studying as much as you had planned.
- you waste a lot of time moving from one activity to another.
- you fail to concentrate on even one task.
- you have difficulty focusing on your studies.
- So a plan does not restrict one's freedom, instead it keeps you informed about your progress and broadens your horizon by giving you time to do things you could not do without planning. What do toppers say
- Remember there is no one golden method that will work for all. This book can only outline guidelines for preparation. Every student will then have to evolve his or her own method. Once you have defined your method, try it out on a few topics and evolve the method.
- To end this chapter always remember it is very important to
- Evolve a method/Make a plan, which takes into account your strengths, weaknesses and skills.
- Stick to this method throughout your preparation and remember planning is a kind of mental muscle, it will improve the more often you use it.

# Your Quest for an overall ADAPTIVE BOOK ends here



**Structure of the Book:** Each Chapter is divided in different sub-chapters. Flow of a chapter is as follows.

- Detailed theory along with numerous illustrations. Theory starts from the scratch and goes up to Olympiad level.
- Concept Applicator (Level 1): Basic concept testing questions.
- Concept Builder (Level 2): Concept strengthening questions.
- Concept Cracker (Level 3): IIT JEE Mains / State level exams. Multiple CC Exercises are given in JEE Main format with 1 Hr time limits each.
- Concept Deviator (Level 4): Multiple CC Exercises are given in JEE Advanced format with 1 Hr time limits each.
- Concept Eliminator (Level 5): Mathematics Olympiad/ KVPY standard Questions.

## Unique Books to Master Problem Solving

**5**  
Difficulty  
Level of  
Exercises

- Concept Applicator
- Concept Builder
- Concept Cracker
- Concept Deviator
- Concept Eliminator

**Written by Gajendra Kumar,**  
A Top JEE Educator  
with 15+ Years of Experience

## Improve your Concentration Power

**What is distracting you?**

**How sharp is your ability to concentrate?**

About 95% of students claimed that they lack the ability to concentrate properly

How do we change this?

**Develop concentration!!**

When we watch a movie, we are able to focus for three hours.

Even as we watch a cricket match on TV, our eyes stay glued to it!

In contrast, when it comes to studying, we are easily distracted by slightest noise, faintest whisper, or even the most distant sound of music in the room.

Thus, the problem is not in the concentration power but the lack of interest in what we are doing.

A student's major concentration power is determined by his or her interest in the subject at hand.



## **Learning + Concentration + Interest + Confidence**

The learning process begins with the amount of interest you have in the subject, which further improves your concentration in staying focused. In addition, it increases confidence in holding on to the theory and its application.

**You are confident about a subject when you-**

1. Enjoy reading the subject or topic.
2. Stay self-motivated to sit and study it anytime.
3. Develop the ability to solve tricky problems.

**On the other hand,**

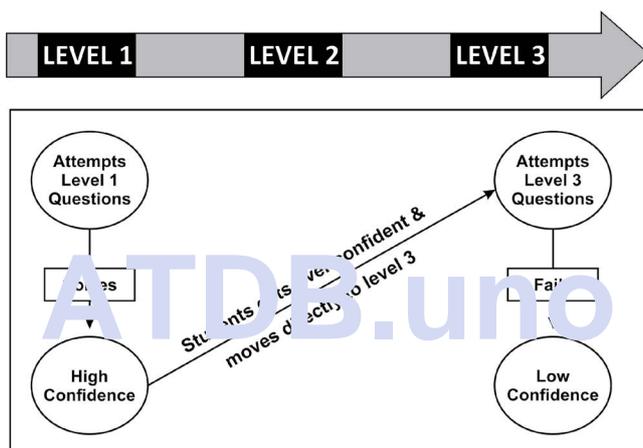
You lack confidence in a subject when you-

1. Don't understand the topic.
2. Force yourself into studying a certain subject.
3. Approach problems with negative mindset.

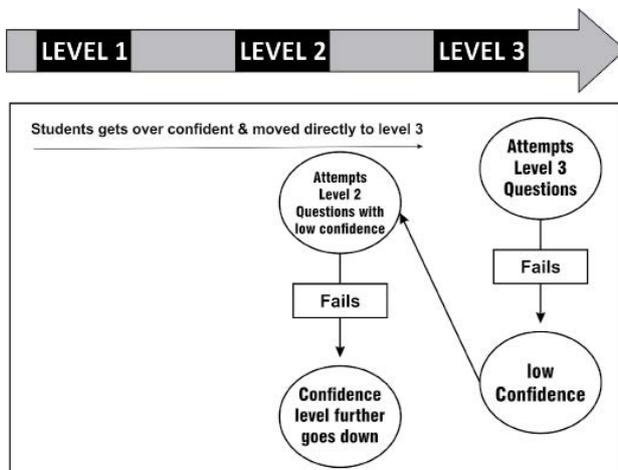
**How to develop Interest and build Confidence in a subject?**

An easiest way to develop confidence or interest is to approach the subject in a systematic manner. Usually, students skip some of the fundamental topics and approach problem solving with half-baked knowledge that eventually results in one losing the interest in the subject. Let us find out the different approaches used by students to avoid this.

**Approach 1.**



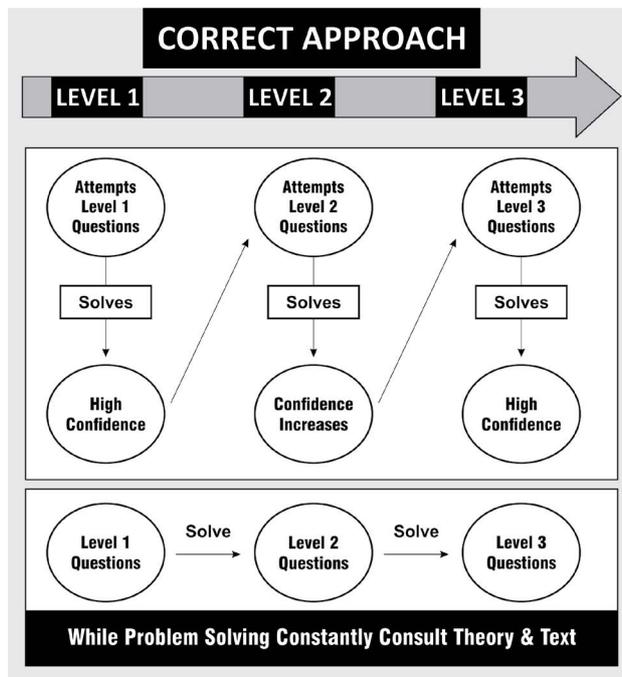
**Approach 2**



In both the approaches the student skips certain steps and the net result is inability to solve problems which lowers the confidence level / interest in the subject. This is the stage when suddenly the subject starts looking difficult and boring. The correct methodology is explained in Approach 3.

**Approach 3.**

In Approach 3 the student moves from Level 1 to 2 and then to 3 and constantly refers theory and text as and when the problem occurs.



**Following techniques will aid your concentration power:**

- Be conscious of the state when your mind wanders around. Keep your mind focused on what you are studying. As you practice this, you will become more adept at gaining your concentration power.
- Apart from your regular activities, set 10–15 minutes aside for a task you are going to do with absolute concentration.
- Activities may include praying, walking, looking at a still picture/clock and so on. Be conscious of the moment when you find that you feel distracted. Gently bring back your mind, review the thought that distracts you and get back to the task with full concentration.
- Create an environment to study. Make sure you are sitting comfortably and there is proper lighting on the desk. You won't be able to concentrate if your eyes are strained. Ensure that there is no distraction from noise in your room.
- Study hard during the peak hours of your performance and schedule topics that consumes more energy and need focus, require high problem-solving skills and alertness.
- Make small, realistic targets for yourself. This will increase your chances to succeed in reaching the desired goal. Success will make you self-confident and improve efficiency in studying.
- Adopt a healthy sleeping schedule and never increase your study hours at the cost of your sleep. Students often deal with a lack of concentration due to an inconsistent sleeping cycle.

**Once you apply these techniques in your studies, your concentration related problems will go away. To Summarize:**

- Developing confidence in the subject leads to greater interest in studies.
- A student can develop confidence in a subject in 5 to 6 sittings.
  - Even when you score less, you must try clearing your doubts by spending more time on that topic

## How to Sharpen Problem Solving Skills?

In a competitive exam it is not important that whether you know the question or not or whether you can solve the question or not but what is important is whether you can solve the question in shortest possible time or not. The goal of this chapter is to teach problem solving approaches so that you can become an expert problem solver. Effective, expert problem solving involves answering six questions:

- What's the problem about?
- What am I asked to find?

- What information am I to use? What principles apply?
- What do I know about similar situations?
- How can I go about applying the information to solve the problem?
- Does my solution make sense?

As a student you will decide, "this is an energy problem," or, "this is a Newton second law problem." A novice is more likely to decide, "this is a pulley problem," or, "this is a baseball problem." The novice concentrates on the surface features of the problem while an expert concentrates on the underlying principle. You, an expert problem solver, will answer above questions, play around (briefly) with the problem, and make drawings and sketches (either in your mind, or even better, on paper) before writing down formulas and plugging in numbers. A novice problem solver, on the other hand, will try to write down equations and plug in numbers as soon as possible. So the key issue is

### **Toppers approach to Problem Solving**

After interaction with lot of students I observed that most of us do not have correct approach towards problem solving. Some of the common made mistakes are

- Many students read the question & the solution and then satisfy themselves that they could have attempted the question in a similar manner.
- Many students lay too much emphasis on solving higher number of questions.



Remember that there is no dearth of books and problems available. One has to draw boundaries and concentrate on quality rather than quantity. Doing 100 quality & concept based questions is more important than doing 1000 questions which have not been selected carefully. Remember

that the purpose is to sharpen problem-solving skills. It is possible to prepare a topic by doing 30–40 problems only, if you try to solve them completely by yourself. This may also involve devoting half an hour or one hour or may be even more on an occasional problem. On the other hand, your preparation can be very weak and hollow even if you have attempted more than 200 problems on the same topic in the same time, thereby devoting much less time on difficult problems and leaving them as doubts to be cleared from your teachers. The key to success in sharpening problem solving skills is to practice quality questions without seeing the solution.

In fact, it should be noted that Problem solving is the end result of many other important activities like

**STEP I : Proper understanding of concept and its application.**

**STEP II : Mastering skills such as visualization**

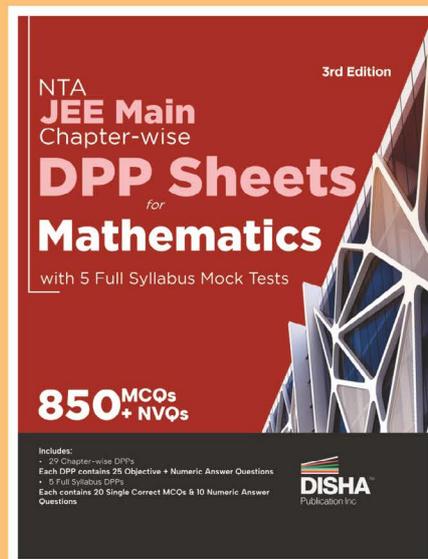
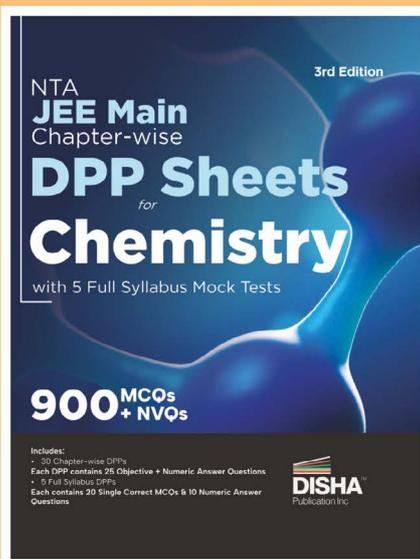
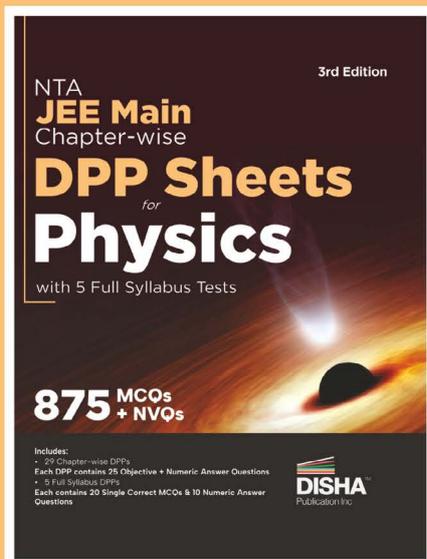
**STEP III : Continuous interaction between theory & problems.**

If you have done all these activities properly, only then you would be able to solve problems successfully. Another misconception is collecting problems from all sources and then trying to solve them. Plan beforehand and tell yourself that you will solve a particular number of problems in the topic. Once you have achieved proficiency you need not waste your time in collecting still more problems. Also important here is that we have to solve relevant problems, problems of the level that are asked in the exams. Solving problems from here and there can lead to frustration which can disturb the entire plan. Let us now discuss each of the above key steps involved in problem solving.

**STEP I : Proper understanding of Concept and its Application**

It has been seen that normally students move directly to the formulae and start solving problems. The result, after solving few problems they get stuck and ultimately get frustrated. This is basically because of wrong approach towards the subject. It is advised that student should follow following steps in order to have proper understanding of concepts and their applications.

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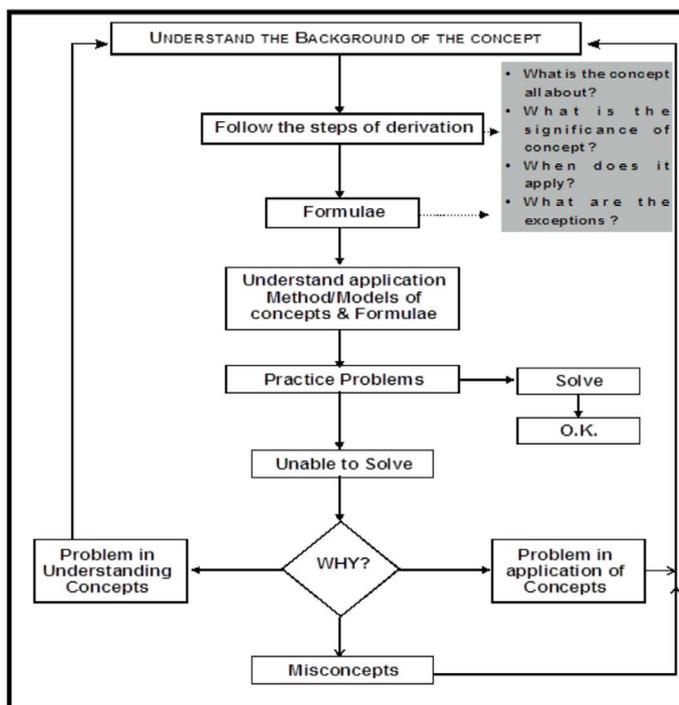
Each  
book  
Contains

28-30  
Chapter-wise DPP Sheets

5 Subject  
Tests

100%  
Solutions

## Basic steps of learning any concept



- Understand the background of the concept
- What is the concept all about?
- What does the concept say?
- Focus on significance of the concept
- What are the exceptions to this concept?
- When, Where and How to apply this concept?
- Follow the steps of derivation of the concept
- TRY TO REPRODUCE CONCEPT IN YOUR WORDS
- In case of any doubt read and understand the concept again
- Understand the application method of the concept
- Practice questions on the concept (Start from easy and gradually move to difficult ones)
- Diagnose the problems and take corrective measures.

### While Practicing, try solving questions completely

After mastering the concept and application methods, try to solve the question on your own. In the beginning (till you have achieved mastery of the application method and concept), write every step of the application method and solve the question. Once you have achieved mastery you may ignore the steps. Remember that trying to miss steps or solving in a brief manner in the beginning itself will lead to serious problems and the student will not be able to gain mastery. If you cannot solve the question, look at the answer briefly and then solve it again.

### STEP II : Visualization of the problem

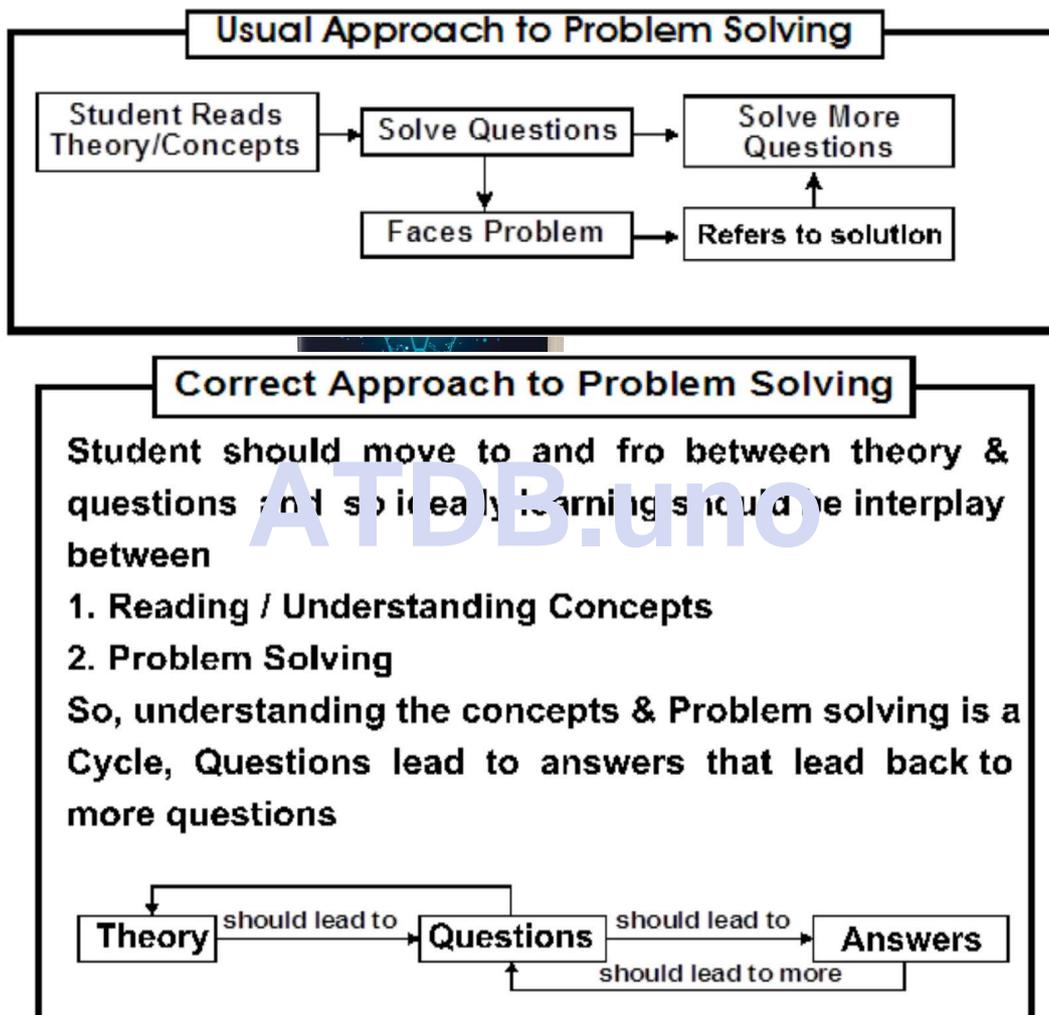
Follow the following steps to convert the problem in the form of a diagram. Conversion of problem in the form of a diagram helps in better understanding of the concept. Visualisation of a problem involves following steps

- Step 1. Draw the diagram as per the problem.
- Step 2. Once the diagram is drawn, check the problem again to see if what is asked in the question is clearly represented in the diagram.

- Step 3. Check if the diagram makes sense. If the diagram looks absurd, there is some problem in your understanding of the question.
- Step 4. Understand the question now by going through the diagram instead of the question. If you find that this is not possible, then your representation is wrong. You should be able to explain what is required by interpreting the diagram.
- Step 5. Make modifications in the diagram till you are clear that the diagram is exact representation of the problem.
- Step 6. Do not proceed to the next step till you are confident about the diagram.

### STEP III : Interplay between theory & Problem Solving

Normally students read the theory, understand the concept and then they keep on solving more and more questions. So the approach followed can be shown by the following diagram.



This is a wrong approach. Ideally, the student should move to & fro between text & questions. Remember, reading the text and solving homework problems is a cycle: Questions lead to answers that lead back to more questions. It is recommended that students should solve questions in rounds and in multiple sittings.

We have already learned that learning always happens in jumps. So rather than trying to complete entire exercise at one go it is recommended that students should attempt exercises in multiple sittings. The aim of sittings should be

First Round Objective : You should be able to solve 60 to 70% questions

Second Round Objective : You should be able to solve 70 to 80% questions

Third Round Objective : You should be able to solve 90% and above.

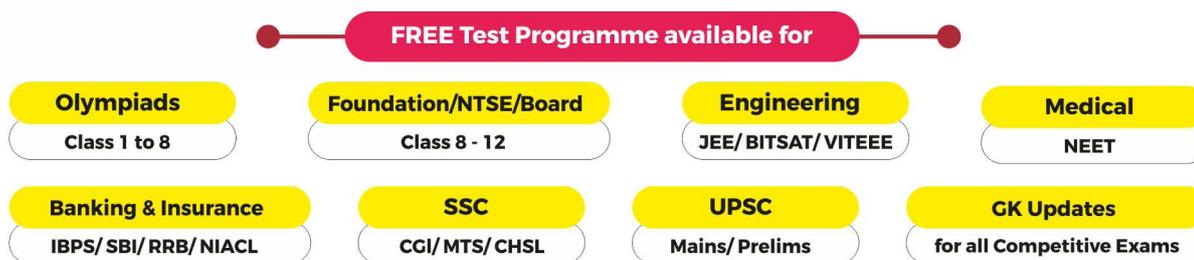
Remember, you will learn more in six 1 hour periods spaced through the week than in one 6 hour period.



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## ATDB.uno What is a Misconcept?

### How to identify and remove Misconcepts?

The normal sequence of steps followed by student in problem solving are :

- The student solves a problem
- The student checks up the answer
- The student finds that the answer is wrong
- The student reviews the solution

Sometimes they find that they have made a simple mistake which when corrected gives the correct answer. This is a very good state of affair and the student need not be worried if most of the time they face such situation. However if they make such silly mistakes too often it is a cause of worry. They should then figure out reasons why they make such mistakes and remove these causes.

A far more dangerous possibility is that after verification also the solution seems to be correct.

### This is the Stage of Misconception

At this stage, the student is confused. They either

- try to find some way of getting the solution right by trying out alternate methods or by hit & trial approach.
- or else ignore their method and understand the solution.

Both of them are not the correct way to approach the problems. Ideally what a student should do is to critically analyse his approach to the solution and try to find out where did he go wrong and what is the corrective measure he should take so as to avoid these kind of mistakes in the future. It is very important to find out the misconception and initiate steps to remove the misconcepts.

# Frequently Asked Questions

## Is IQ important factor in success?

IQ or intelligence is a factor, though a minor one. In my opinion IQ acts as a threshold. You just need to have a basic minimum level of IQ to succeed. Interestingly, in a survey it was found out that the average level of IQ of IIT students was 110, compared to the average level of IQ of general population which was 100+. So, there was very little difference between the IQ level of brightest students (IIT Students) and the general public. This implies that the basic determinant of success therefore is not IQ, but other factors.

In the last 3 years after interacting with lot of students I realized that vast majority of students who set off on a course of study are quite capable of successfully completing it. It is practical life circumstances, false beliefs and negative attitudes which, coupled with poor study techniques, may cause the problems – not lack of ability or IQ.

## How to some students do well even without studying hard?

I have seen lot of students who have worked very hard but inefficiently and who's performance in examination has been a surprise & disappointment both to themselves and their teachers, families and friends. At the same time I have also met students who are able to achieve some times satisfactorily and some times excellent results without hardwork. The basic differentiating factor is the study techniques. Hard work should bring achievement but only when coupled with efficient and appropriate study techniques. And that is what this book is all about.

## How to Relax?

One of the most common problem during studies is severe anxiety or nervousness. The result of the exam can totally change your future and the very process of preparing for them can be a stressful experience. Delay in participation and due inability to solve the problem or even few hours waste of time can lead to anxiety and create stress which can adversely affect your studies, so it is very important to learn how to manage stress or anxiety.

## Even famous people do it

I still remember a video clipping of a famous singer that I saw on TV years ago. The camera had been following him around while he went to rehearsal, got made-up and talked with his manager.

The scene I remember most was the shot of him as he waited backstage for his name to be announced. Now, remember, this was a man who had been doing stageshows for decades. You could hear the audience: It was excited to be in his presence. It was friendly. And he looked nervous, horrified, petrified, regretful that he'd ever entered show business and extremely vulnerable. (Presuming he remembered he was being filmed, this was the controlled panic.)

But, when the announcer called his name and the roar of applause began, he was transformed. He walked with a determined gait to the stage, the lights hit him, he smiled and took the microphone, the band began and he never looked back. His famous voice filled the auditorium, and the audience went wild. If he could face such regular panic attacks and still passed the test, why shouldn't you?

Remember that a certain level of anxiety is also good and must for you to have a faster learning. Remember a certain level of anxiety can enable you to be more alert, attentive and to concentrate more fully. It can sharpen your exam performance; make you feel more full of energy; cause you to work at the most effective speed and be more attentive to detail. So achieving optimum arousal (anxiety) is the key to success. But the moment the anxiety level becomes higher and it starts disabling it is the time to take an immediate corrective measures.

It is a natural human reaction to worry at times during your studies. It is also natural to express an emotional reaction to the ups and downs of tackling tasks: angry or frustrated at one time, exhilarated at another. The ideas in this book are intended to help you avoid becoming locked into a state of anxiety, where your interaction with exams, tests and course deadlines (the potential 'stressors') results in an

unhelpful stress reaction in you. This is the type of anxiety state which feels disabling.

Before we learn how to handle stress & anxiety, let us understand what are the signs and symptoms of stress?

- Your heart beats at an accelerated rate.
- Your breathing rate increases.
- Your body sweats.
- Your mind becomes agitated and you feel restless.
- Your stomach feels queasy. In other words you feel butterflies in your stomach.

You can control these problems by training your mind and body to relax on command. In relaxation you are really training to control the functions of your mind.

**Relaxation Techniques :** You can relax while sitting on a chair, lying on a bed or stretched out on a comfortable spot. To relax focus on your breathing first, close your eyes and listen to the sound as air flows in and out. As you breath your belly should be moving in and out. Next start counting one to ten, on your inhalations and saying to yourself "relax" in your mind. Continue this process until you feel quiet and your mind is focussed and undisturbed by fleeting thoughts. The idea behind counting is to shut your mind from other thoughts and not to be disturbed.

**Palming :** Close your eyes and keep your open palm pressed against your eyes. Hold this position for 5-10 minutes every day. You will feel the heat being transferred to your eyes. Do this exercise regularly every day or pressing a folded cloth to your mouth, blow air into the cloth so that it becomes warm. Press the cloth against your eyes.

When ever you are tensed or anxious, close your eyes and take a deep breath. Slowly breath out Do this about ten times and watch the difference. This should calm your nerves and reduce your anxiety.

### Other methods for Reducing Anxiety

- Self-Assertion - Do a realistic review of the situation, decide on a course of action and carry it out; assert yourself, take charge of your life.
- Sleep habits - In order to get more time to study several students sacrifice their normal sleep. Occasional loss of sleep may not affect your thinking but loss of sleep over a longer period can create stress. Do not carry your problems and anxieties to bed. They will leave you mentally sluggish the next morning. Cultivate methods that enable you to get enough good sleep.
- Relaxation - Practice physical and mental relaxation exercises
- Quiet time - Cultivate and then use a "quiet time" to review your situation, to compose yourself, and to prepare for a project or situation for the day.
- Friends - Talk to one or two friends a day, for support and encouragement, to renew your self-confidence and morale.
- Consultation - Help yourself by seeking consultation with peers, instructors, or professional counsellors.
- Practice to relax every day: The more you practice, the better you will be able to relax. Practice to relax for five minutes at the beginning. Plan to have atleast 3 relaxation periods each day, of five minutes duration. On very busy days, do not be tempted to do away with the practice totally. It is more important to relax on these busy days.

Remember, anxiety affects people of all abilities. Among the students I have met who are most anxious about their examinations are large numbers who have gained very good marks.

### Importance of Notes

- Why should you make notes : Some of the advantage of making notes are :
- Making notes while attending the class help you concentrate better in the class.
- Notes making also aid in improving the retention. They help in transferring information from short term to long term memory.

- Notes helps in revising the contents of the lecture faster. Research says that with the help of personalised notes you can revise a chapter 10 times faster than revising directly from the book.

### The Amount of Notes to Take

- There is no limit to the amount of notes to take down. The amount will depend on;
- The content of the lecture : If the lecture deals with solid facts, laws and principles. It may necessitate a great quantity of notes
- How familiar you are with the topic: The less familiar you are with the subject, more detailed notes you require. If you are familiar, just an outline of the lecture will suffice
- Whether the information is readily available in a text- book or else where: If no other source is readily available , complete notes will have to be taken down

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### Cornell Notes

Cornell Notes is a system of making and using notes that promotes active learning. Before the lecture (or reading) you set up your notebook pages with a vertical line dividing the page roughly 1/4 (left) and 3/4 right. The wider right side is used to make notes, draw graphs and record the important information from the lecture or reading. It's a good idea to leave a line or two between each major note or piece of information. The left column is used to write questions and keywords that relate to the information recorded on the right. Each major point on the right ought to have a question or keyword on the left.

Depending on the speed of the professor and the amount of information that needs recording in the right column, you may or may not have time to write the questions and keywords in the left column. If you do, that's great. If you don't, then you should fill in the left column as soon as possible, and for sure before the end of the day. The questions and keywords serve an important function. You will be using these to remember the key points in the right column during several practice sessions.

Once you have the questions and keywords in the left column, you are ready to do a practice session.

Use a blank sheet of paper to cover the right column. Now, without peeking, look at the questions and keywords on the left and try to remember the information on the right. Say the answers to yourself, or write them down on the blank sheet. Don't just say to yourself, "I know that..." You want to be able to repeat or paraphrase the information on the right with good accuracy. If it is information that needs to be perfect (e.g., a formula), then that is what you want. However, if it is information that is more general, then an accurate paraphrase is probably better. Your first practice session should be as soon as possible, ideally right after class if you have a spare period, or in your first break. If you wait too long, you will find that you can't remember much of the information in the right column. If that's the case, then you waited too long. As you practice, Keep Score. If you remembered the information accurately and without peeking, then give yourself a tick (check mark) under the question or keyword on the left. If you had to peek or didn't remember the information very well, give yourself an "X."

## Spider Notes

This is one of the most effective ways of note making. The final notes should always be in condensed form, at the same time they should include all the important information so as to help in subsequent and final revision before exams.

In spider notes, the primary idea is placed in the centre of the page so that the secondary and tertiary ideas can follow quickly and easily facilitate a harmonious thought process.

### Advantages of Spider Notes over Linear Notes

1. About 60% time is saved by noting only the relevant words.
2. About 80% time is saved by reading only relevant words.
3. About 80% revision time is saved.
4. About 85% time is saved by not having to search for keywords amongst unnecessary verbiage.
5. Essential key words are more easily discernible.
6. Concentration on main issues is enhanced.
7. Quick and appropriate associations made because of the use of words.
8. The brain finds it easier to accept and remember visually stimulating, multidimensional spiders, rather than monotonous, boring linear notes.

## Key Concepts / Key Words : Nature of Memory Recall

Get ready for a small exercise.

Describe any book you have read, or any place you have visited, or any film or TV program you have watched. Close your eyes and do it for about 2 minutes.

People do not tell word-for-word for what happened. What they remember is main features, outlines, main incidents of film. These are key words of key concepts.

You remember things as key words and key concepts rather than word-for-word details and word-for-word descriptions. This is the very nature of your memory.

Use the following guidelines while drawing or writing a mind map.

- Use a key word or key phrase at the centre.
- Then draw lines from the centre
- On each line, write key words in CAPITAL letters. Use of capital letters helps in revision and memory.
- Use only one word per line. This makes it easy to make connections.
- Let ideas flow. Do not try to "think" hard. Just write down whatever comes to your mind. The aim is to write everything that your mind thinks about the central idea. Since your mind thinks faster than you can write, you should not pause or stop momentarily. Just keep writing or drawing.

Mind maps use only key words and key concepts while linear notes use complete sentences and paragraphs. The key words and key concepts use only 20% of the words. So, if you use linear notes, you waste time in writing those 80% additional words, and more importantly, you waste time in reading

those 80% additional words every time you revise. In linear notes, you waste time searching for the key words because they are mixed up with non-key words.

### **The mind map has the following additional advantages :**

- Mind map clearly shows the central idea of lesson.
- The relative importance of any idea is clearly shown: the ideas nearer to the centre are more important.
- The links or connections between key ideas are clearly shown.
- The nature of the structure makes it easy to add new information without scratching or writing in small letters.
- Each mind map looks different from others- it helps memory.

When you use mind map notes, you do not have to worry about the problems usually associated with linear notes such as: order, sequence, emphasis of ideas, beginning, ending, organization etc. These problems are simply eliminated in the mind map technique.

Exercise : Spend 15 minutes and prepare your own mind map notes for this book.

### **How to be a winner and a champion?**

Everyone loves to be a champion. But not everyone knows how to be one. In every endeavor we all say we'll be THE NUMBER 1. But when asked how, we start looking here & there.

Most achievers will answer, "Luck has very little to do with it." Being Number 1 takes much more than luck. It takes inspiration, persistence, and faith. Luck is a "nice-to-have."

According to Tom Hopkins the 4 P's to be a champion are :

1. **PRE-PLAN:** Set goals. Devise strategies. Set your course of action, with specific tasks and corresponding deadlines. The only way you can reach what for you is the Number 1 position is to have a clear picture of that goal and which path leads to it. Your plans must be realistic, though - achievable. Put your goals in writing and add to them. Some planning takes a little time. It's all right. A good plan is the first step up the ladder to Number 1.
2. **PRACTICE:** Now, with a good scheme in hand, your next step is to work on it. How? Practice, practice, practice. No one becomes a champion swimmer overnight. Not even ten overnights! It takes months of serious training, dedicated practice. And what did Tom Hopkins say? "Practice doesn't make perfect. Perfect practice makes perfect." In other words, there's no sense practicing something that doesn't work or that doesn't lead you to success.
3. **PERFECT:** This is something that goes beyond practice. This P is shooting for perfection. Some call it fine-tuning. After you've practiced long and hard to learn, understand, and rationalize the techniques and skills... after you've done it a hundred, a thousand times... after you've acquired "muscle memory" and you can actually do it with your eyes closed... it's then time to cross the line to perfection. Do not stop practicing until the motion becomes flawless. Until you can do it flawlessly, every time. Imagine the magicians who get away with card tricks using slight-of-hand. They start learning a trick in slow motion, and practice until they can perform it faster and smoother. And when they can do it flawlessly with their eyes closed, every time, they move on to perfecting the move until they become confident enough to...
4. **PERFORM:** This is the test. The moment that will tell you that you have succeeded. Everything you planned, practiced, and perfected, will find fulfillment during the performance. Show your mastery - your skill. Let other people marvel at your speciality. Make them appreciate your effort and excellence in the task you have chosen.

### **When does one start preparation?**

The earlier one starts the preparation the better are his chances. The ideal time to start is within one month of completing one's board examination. However, even one year of concentrated effort can help student achieve success - however, student's commitment needs to be high in this case.

If you are attending school as well as preparing for Competitive Exam, and if you have 2 years with you,

then you must devote 2 to 3 hours every working day for studies and 10 to 12 hours on school holidays and weekends. Whereas if you start preparing in Class XII you should spend 3 to 5 hours everyday preparing for Competitive Exams.

### Is coaching necessary ?

For success in Competitive Exams, 80% of the contribution is from the student's effort, 10% is from the strategy of how to derive maximum out of the knowledge the student has and 10% is from guidance. Here the important thing to note is that however strategy & guidance contribute only 20% but are very important because it is this 20% which decides & defines how the balance 80% of time & energy is going to be spend. In case proper guidance is available to a student at home or at school, there will be no need for coaching; however, in absence of that coaching is advisable.

### My future will be ruined if I fail/don't get good marks

Examinations are an important way in which professional colleges select students. Success in them does open doors to particular jobs and careers. Lack of success will mean certain jobs and careers are not immediately open to you, at least at the level of entry you originally intended. Some may be closed altogether. However, happiness, wealth, peace of mind, rich experience of life, meaningful status in the eyes of others, a worthwhile career, a useful job and an inner sense of purpose and self belief as a human being, do not depend upon examination results.

## The Number of candidates registered and appeared for JEE (Main)-2023 [B.E./B.Tech]

Number of common candidates Registered in both sessions (January/April) of JEE (Main) – 2023 Examination.	629000
Number of common candidates Appeared in both sessions (January/April) of JEE (Main) – 2023 Examination.	594013

### Previous Year Statitics

Year	Total Number of Applicants	Total Number of Students Appeared	Total Number of Students Qualified
2022	10,26,799	9,05,590	2,50,000
2021	10,48,012	9,39,008	2,50,186
2020	11,74,000	10,23,000	2,51,681

## Gender/Category wise distribution of candidates appeared in JEE Mains 2022

GENDER	GENERAL	Gen-EWS	OBC(NCL)	SC	ST	PWD	TOTAL
MALE	3,03,169	86919	3,03,919	80,254	28,050	2,537	8,04,848
FEMALE	1,39,417	35,397	1,36,172	33,198	12,709	652	3,57,545
TRANS GENDER	2	1	2	0	0	0	5
TOTAL	4,42,588	1,22,317	4,40,093	1,13,452	40,759	3,189	11,62,398

For those candidates who appeared in both January & April/September Examinations, their better of the two scores have been accounted for.

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# JEE Main Score vs Rank 2023

here is the expected marks vs percentile JEE Mains 2023 below. As per JEE Main marks vs percentile vs rank, candidates are required to score above 250 marks to obtain a percentile of more than 90.

Score out of 300	Rank	Percentile
286- 292	19-Dec	99.99826992- 99.99890732
280-284	42-23	99.99617561 - 99.99790569
268- 279	106-64	99.99034797 - 99.99417236
250- 267	524-108	99.95228621- 99.99016586
231-249	1385-546	99.87388626-99.95028296
215-230	2798-1421	99.74522293-99.87060821
200-214	4667-2863	99.57503767- 99.73930423
189-199	6664- 4830	99.39319714- 99.56019541
175-188	10746-7152	99.02150308 - 99.3487614
160-174	16163-11018	98.52824811-98.99673561
149-159	21145-16495	98.07460288-98.49801724
132-148	32826-22238	97.0109678-97.97507774
120-131	43174-33636	96.0687115-96.93721175
110-119	54193-44111	95.05625037-95.983027
102-109	65758-55267	94.01228357-94.96737888
95-101	76260-66999	93.05600452 -93.89928202
89-94	87219-78111	92.05811248 -92.88745828
79-88	109329-90144	90.0448455 -91.79177119
62-87	169542-92303	84.56203931-91.59517945
41-61	326517-173239	70.26839007-84.22540213
1-40	1025009-334080	6.66590786-69.5797271

## Top Rankers in JEE 2023

Rank	Toppers' Name	NTA Score
Rank 1	Singaraju Venkat Koundinya	100
Rank 2	Kallaluri Sainadh Shrimath	100
Rank 3	Ishan Khandelwal	100
Rank 4	Deshank Pratap Singh	100
Rank 5	Nipun Goel	100
Rank 6	Allam Sujay	100
Rank 7	Vavilala Chidvilas Reddy	100
Rank 8	Bikkina Abhinav Chowdary	100

Rank 9	Suthar Harshul Sanjaybhai	100
Rank 10	Abhineet Majety	100

## JEE Main 2022 Toppers – State Wise

State-wise toppers and their NTA Scores in B.E./B.Tech. are as follows :-

States	Name	Rank
Andaman Andicobar Is- Lands	Mayank Gullia	99.3320849
Andhra Pradesh	Polisetty Karthikeya	100
	Koyyana Suhas	100
	Penikalapati Ravi Kishore	100
Arunachal Pradesh	Debargha Nath	98.3940093
Assam	Sneha Pareek	100
Bihar	Aditya Ajey	99.9984259
Chandigarh	Saarth Singla	99.9984363
Chhattisgarh	Abhinav Rajesh Shripad	99.9921973
Dadra And Nagar Haveli	Dishant Kumar	99.1850394
Daman And Diu	Vishnu Lal Maurya	99.9121321
Delhi (Nct)	Ashmit Nangia	99.9984506
	Hemanshu Garg	99.9984506
Goa	Arjun Ganesh Bhanekar	99.9469413
Gujarat	Mahit Gadhiwala	99.9984528
Haryana	Sarthak Maheshwari	100
Himachal Pradesh	Chetan Kukreja	99.8441657
Jammu And Kashmir	Divyansh Verma	99.9207545
Jharkhand	Kushagra Srivastava	100
Karnataka	Boya Haren Sathvik	100
Kerala	Thomas Biju Cheeramvelil	99.9937942
Ladakh	Irfan Hussain	98.163031
Lakshadweep	Mohammed Suhail M K	80.7387986
Madhya Pradesh	Samyak Jain	99.9952928
Maharashtra	Adwai Krishna	99.9984486
Manipur	Usham Adhitya Luwang	96.9073943
Meghalaya	Siddhant Purkayastha	96.5970792
Mizoram	Simon Lalremsiama Shangpliang	98.2081215
Nagaland	Khadka Bahadur Baniya	97.7086009
Odisha	Deevyanshu Malu	99.9891545
Outside India		
Puducherry	S. P. Siddharth	98.934044

Punjab	Mrinal Garg	100
Rajasthan	Navya	100
Sikkim	Chandan Kumar Mahato	94.9016854
Tamil Nadu	Deeksha Dhiwakar	99.9984259
Telangana	Dheeraj Kurukunda	100
Telangana	Aniket Chattopadhyay	100
Telangana	Jasti Yashwanth V V S	100
Telangana	Rupesh Biyani	100
Tripura	Rishik Saha	99.924444
Uttar Pradesh	Saumitra Garg	100
Uttarakhand	Gautam Arora	99.9162219
West Bengal	Ashutosh Agarwal	99.9937578

## JEE Main Cutoff Trends (2013–2023)

Tabulated below is the category wise JEE Main cut off marks for the previous years:

Year	ST	SC	OBC NCL	General
2013	45 Marks	50 Marks	70 Marks	113 Marks
2014	47 Marks	53 Marks	74 Marks	115 Marks
2015	44 Marks	50 Marks	70 Marks	105 Marks
2016	48 Marks	52 Marks	70 Marks	100 Marks
2017	27 Marks	32 Marks	49 Marks	81 Marks
2018	24 Marks	29 Marks	45 Marks	74 Marks
2019	44.33 Marks	54.01 Marks	74.3 Marks	89.7 Marks
2020	39 Marks	50 Marks	72 Marks	90 Marks
2021	34 Marks	46 Marks	68 Marks	87 Marks
2022	27 Marks	43 Marks	67 marks	88 Marks
2023	37 Marks	52 Marks	76 Marks	91 Marks

## JEE Advanced 2022 Rank List

As we know, rank lists are generally prepared by the exam conducting authority based on the aggregate marks in JEE Advanced 2022. Go through the minimum percentage of marks prescribed for inclusion in the 2022 rank list below.

Rank list	Minimum % of marks in each subject	Minimum % of aggregate marks
Common rank list (CRL)	10.0	35.0
GEN-EWS rank list	9.0	31.5
OBC-NCL rank list	9.0	31.5

SC rank list	5.0	17.5
ST rank list	5.0	17.5
Common-PwD rank list (CRL-PwD)	5.0	17.5
GEN-EWS-PwD rank list	5.0	17.5
OBC-NCL-PwD rank list	5.0	17.5
SC-PwD rank list	5.0	17.5
ST-PwD rank list	5.0	17.5
Preparatory course rank lists	2.5	8.75

## Previous Years JEE Advanced Marks vs Rank Analysis

For an in-depth understanding of how the marks and corresponding ranks vary over the years, let us have a look at the common trends in JEE advanced rank vs marks in the past few years:

## JEE Advanced Marks vs Rank : last 10 Years

Rank	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
1	90	87	97	89	93	94	93	86	84	87	86
100	79	66	79	70	73	76	83	69	70	78	76
500	67	53	66	59	61	65	76	55	60	69	67
1000	60	47	51	53	51	50	72	49	57	63	62
2000	53	41	52	46	50	53	67	44	49	57	56
3000	48	37	47	42	47	49	63	43	45	54	52
4000	45	34	43	39	44	46	60	38	43	51	49
5000	43	32	40	37	42	44	58	36	40	49	47
6000	40	30	38	35	40	42	56	34	39	47	46
7000	39	29	36	34	39	40	54	33	37	46	44
8000	38	28	34	32	37	39	52	32	36	44	43
9000	36	27	33	31	36	38	51	31	35	43	41
10000	34	26	31	30	35	36	50	30	33	42	40

## JEE TOPPERS of last 15 years

Year	Name	Marks	Branch	College
2022	RK Shishir	314/360	Computer Science	IISc Bengaluru
2021	Mridul Agarwal	348/360	Computer Science	IIT Bombay
2020	Chirag Falor	352/396	Astrophysics	MIT Cambridge
2019	Kartikey Gupta	346/372	Computer Science	IIT Bombay
2018	Pranav Goyal	337/366	Computer Science	IIT Bombay
2017	Sarvesh Mehtani	339/366	Computer Science	IIT Bombay

2016	Aman Bansal	320/372	Computer Science	IIT Bombay
2015	Satwat Jagwani	469/504	Computer Science	IIT Bombay
2014	Chitraang Murdia	334/360	Computer Science	IIT Bombay
2013	Pallerla Saisandeep Reddy	332/360	Computer Science	IIT Bombay
2012	Arpit Aggarwal	385/401	Computer Science	IIT Delhi
2011	Immadi Prudhvi Tej	440/480	Electrical Engineering	IIT Bombay
2010	Anumula Jithendar Reddy	418/489	Electrical Engineering	IIT Bombay
2009	Nitin Jain	424/480	Computer Science	IIT Delhi
2008	Shitikant	433/476	Computer Science	IIT Kanpur

## JEE Main Previous Years' Toppers Interview: Check below

JEE Main Toppers	Preparation Strategy
RK Shishir – 2022	I used to take small breaks after every hour of preparation
Mridul Agarwal- 2021	to have long-term targets and then to break them into daily, achievable goals
Chirag Falor - 2020	Regular mock tests along with self study proved to be an advantage in cracking JEE exam.
Parvik Dave - 2019	Regularly revise whatever you study and dedicate 10 to 12 hours daily for JEE Main preparation Know Parvik's preparation strategy
Dhruv Arora - 2019	At the end of study of NCERT books and solving previous years' question papers is enough to crack JEE Mains
Bhogi Suraj Krishna 2018	I studied nine hours daily and approached the faculty for any doubts. Know Suraj's preparation strategy
KVR Hemant Kumar 2018	JEE Main preparation was started in class 8. I studied nearly 7 to 10 hours a day and spent most of the time in college preparing for JEE. Know Hemant's preparation strategy
Parth Satish Laturia - 2018	Prepared for JEE Main while studying in Class XI and Class XII. Covered all the topics of JEE Main and JEE Advanced within this time frame. Know Parth's preparation strategy
Anany Sharma - 2018	Aspirants need to focus more on the practical part of the syllabus than the theoretical part. Know Anany's preparation strategy
Vrunda Rathi 2017	She attended classes regularly and studied at her own pace. Know Vrunda's preparation strategy
Kalpiti Veerwal 2017	Study and solve the notes given by teachers regularly. Know Kalpiti Veerwal's preparation strategy

## FAQs related to JEE Main 2022 result

### Q. How many students toppers were there in JEE Main 2022 March examinations?

A. There were a total of 13 students who secured perfect 100 percentile in JEE Main 2022 March session.

### Q. How to know if I am qualified for JEE Advanced 2022 exam or not?

A. Candidates who will score more than or equal to the category-wise cut off released by NTA will be qualified to appear for JEE Advanced 2021 exam. However, only the top 2, 50,000 candidates will be eligible to appear for JEE Advanced examination.

**Q. How many students appeared in JEE Main 2022 March examination?**

A. A total number of 7,69,589 candidates appeared for JEE Main 2022 March examination

**Q. How will I know which is my best score in JEE Main 2022 exam?**

A. NTA will declare both exam scores on different dates. The ranks, as well as the percentile score, will be provided to the candidates on the official website. NTA will then compile both the sessions and release a merit list for all those who have appeared in both exams.

**Q. How to check the result of JEE Main 2022 examination?**

A. First visit the official website of JEE Mains. Then click on view JEE Main 2022 result. On the login window, enter your JEE Main 2021 application number, password and security pin.

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**1 AIR**  
V C REDDY  
JEE Advanced 2023

**5 AIR**  
A V SIVA RAM  
JEE Advanced 2023

**10 AIR**  
Y V MANEENDHAR REDDY  
JEE Advanced 2023

डटे रहो, क्योंकि हम आपके साथ है

## JoSAA 2022 Participating Institutes

JoSAA counselling is conducted for admissions to 114 participating colleges including 23 IITs, 31 NITs, 25 IIITs and 28 Other-GFTIs.

Name of the Institutes	Number of Institutes	Total Number of Seats
Indian Institute of Technology (IITs)	23	16,232
Indian Institute of Information Technology (IIITs)	26	6,146
National Institute of Technology (NITs)	32	23,997
Government Funded Technical Institutes (Other GFTIs)	33	6,078
Total	114	52,453

# JEE Advanced Cut off 2022 (Qualifying)

IIT Bombay has released the cutoff at their official website. Candidates can check the qualifying cut-off for JEE Advanced 2022 from the below mentioned table

Category	Min marks in each subject	Min Aggregate marks
Common rank list (CRL)	5	55
OBC NCL rank list	5	50
General EWS rank list	5	50
SC rank list	3	28
ST rank list	3	28
Common PwD rank list	3	28
OBC NCL PwD rank list	3	28
General NCL PwD rank list	3	28
SC PwD rank list	3	28
ST PwD rank list	3	28
Preparatory course (PC) rank lists	1	14

## JEE Main 2022 Cutoff – Minimum Percentage for Inclusion in Rank List

Category	Min % of marks in each subject	Min % of aggregate marks
Common rank list (CRL)	4.40%	15.28%
OBC NCL rank list	4.00%	13.89%
General EWS rank list	4.00%	13.89%
SC rank list	2.20%	7.78%
ST rank list	2.20%	7.78%
Common PwD rank list	2.20%	7.78%
OBC NCL PwD rank list	2.20%	7.78%
General NCL PwD rank list	2.20%	7.78%
SC PwD rank list	2.20%	7.78%
ST PwD rank list	2.20%	7.78%
Preparatory course (PC) rank lists	0.83%	3.89%

Colleges other than IITs that accept JEE Advanced scores:

1. Institute of Science (IISc), Bangalore
2. Indian Institute of Petroleum and Energy (IIPe), Visakhapatnam
3. Indian Institutes of Science Education and Research (IISER), Bhopal
4. Indian Institutes of Science Education and Research (IISER), Mohali

5. Indian Institutes of Science Education and Research (IISER), Kolkata
6. Indian Institutes of Science Education and Research (IISER), Pune
7. Indian Institutes of Science Education and Research (IISER), Thiruvananthapuram
8. Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram
9. Rajiv Gandhi Institute of Petroleum Technology (RGPT), Rae Bareli

## JEE Advanced Cutoff Highlights

Candidates want to include in the rank list have to score qualify JEE Advanced 2022 Cutoff which is the minimum qualifying mark.

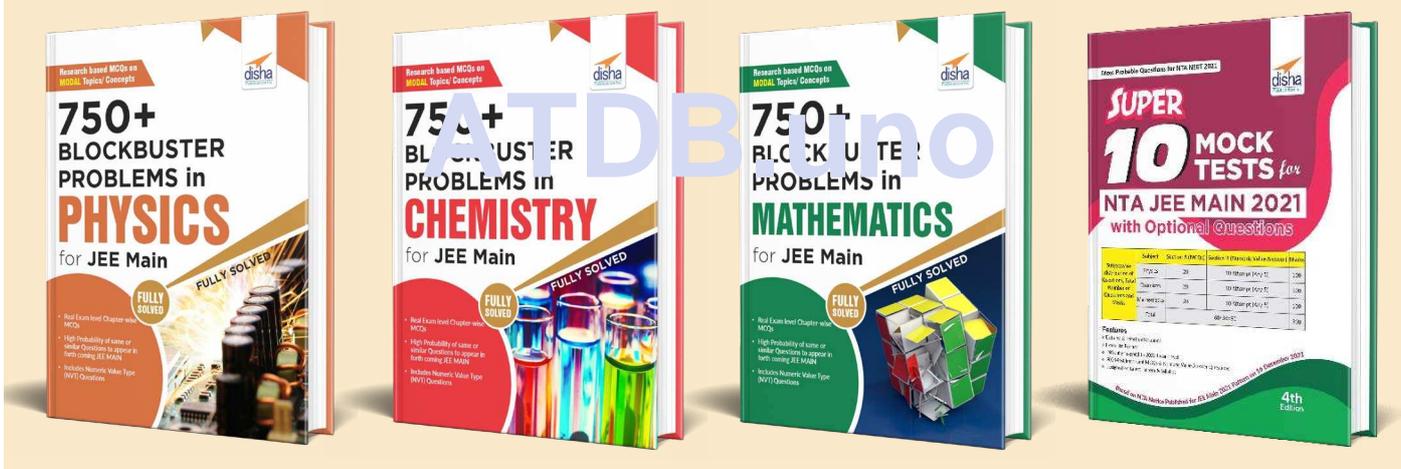
Candidates need to score the minimum qualifying marks in Physics, Chemistry, and Mathematics, and the aggregate qualifying marks.

At the time of JoSAA Counselling, the colleges will prepare JEE Advanced Cutoff.

A separate cutoff rank for each course will be released by every participating college. The cutoff will be in form of Opening and Closing rank.

There will be different categories for each category in JEE Advanced.

## A must have books for JEE Preparation



## Frequently Asked Questions

**QUESTION:** Which institutes other than IITs will accept JEE Advanced 2022 scores?

**ANSWER:** Apart from the 23 IITs, there are other top institutes that accept JEE Advanced scores for engineering admissions. The top non-IITs that will accept JEE Advanced 2022 scores include IISc Bangalore, Indian Institute of Petroleum and Energy (IIPET), Visakhapatnam, IISER Bhopal, IISER Pune, IISER Kolkata, IISER Mohali.

**QUESTION:** What is JEE Advanced Admission Cut off?

**ANSWER:** JEE Advanced Admission Cut off is announced by the JoSAA counselling authority. The qualifying cut off is released in the form of marks, however, JEE Advanced Admission Cut off is released in the form of opening and closing ranks based on admission to IITs is granted to JEE Advanced qualified candidates.

**QUESTION:** What factors are considered for preparing JEE Advanced Cut off?

**ANSWER:** While preparing JEE Advanced Cut off, the authorities consider some factors like the difficulty

level of JEE Advanced exam, seat intake, number of candidates who take the exam, and previous year cut off trends.

**QUESTION:** If I am absent in one of the papers (Paper 1, Paper 2), will my result be declared?

**ANSWER:** NO. You will be considered absent in JEE (Advanced)-2018 and the result will not be prepared/declared. It is compulsory to appear in both the papers for result preparation.

**QUESTION:** Do I have to choose my question paper language at the time of JEE (Advanced)-2018 registration?

**ANSWER:** NO. There is no need to indicate question paper language at the time of JEE (Advanced)-2018 registration. Candidates will have the option to choose their preferred language (English or Hindi), as the default language for viewing the questions, at the start of the Computer Based Test (CBT) examination of JEE (Advanced)-2018.

**QUESTION:** Can I change the language (from English to Hindi and vice versa) of viewing the questions during the CBT of JEE (Advanced)-2018?

**ANSWER:** Questions will be displayed on the screen of the Candidate in the chosen default language (English or Hindi). Further, the candidate can also switch/toggle between English or Hindi languages, as the viewing language of any question, anytime during the entire period of the examination. The candidate will also be having the option of changing default question viewing language anytime during the examination.

**QUESTION:** Will I be given rough sheets for my calculations during the CBT of JEE (Advanced)-2018?

**ANSWER:** Yes, you will be given "Scribble Pad" (containing blank sheets, for rough work) at the start of every paper of JEE (Advanced)-2018. You can do all your calculations inside this "Scribble Pad". Candidates MUST submit their signed Scribble Pads at the end of each paper of the examination, given to them at the start of the paper.

**QUESTION:** During examination, can I change my answers?

**ANSWER:** Candidate will have the option to change previously saved answer of any question, anytime during the entire duration of the test.

**QUESTION:** How can I change a previously saved answer during the CBT of JEE (Advanced)-2018?

**ANSWER:** To change the answer of a question that has already been answered and saved, first select the corresponding question from the Question Palette, then click on "Clear Response" to clear the previously entered answer and subsequently follow the procedure for answering that type of question.

**QUESTION:** Will I be given a printout/hard copy of the questions papers along with my responses to questions in Paper-I and Paper-II after the completion of the respective papers?

**ANSWER:** No.

**QUESTION:** How will I be getting a copy of the questions papers and my responses to questions in Paper-I and Paper-II?

**ANSWER:** The responses of all the candidates who have appeared for both Paper 1 and Paper 2, recorded during the exam, along with the questions of each paper, will be electronically mailed to their registered email ids, by Friday, May 25, 2018, 10:00 IST.

**QUESTION:** Suppose two candidates have same JEE (Advanced)-2018 aggregate marks. Will the two candidates be given the same rank?

**ANSWER:** If the aggregate marks scored by two or more candidates are the same, then the following tie-break policy will be used for awarding ranks: Step 1: Candidates having higher positive marks will be awarded higher rank. If the tie breaking criterion at Step 1 fails to break the tie, then the following criterion at Step 2 will be followed. Step 2: Higher rank will be assigned to the candidate who has obtained higher marks in Mathematics. If this does not break the tie, higher rank will be assigned to the candidate who has obtained higher marks in Physics. If there is a tie even after this, candidates will be assigned the same rank.

**QUESTION:** I have read in newspapers that for the academic year 2018-2019, supernumerary seats for

female candidates would be there in IITs. Does this mean that the non-females will get reduced number of seats in IITs in 2018?

**ANSWER:** A decision has been taken at the level of the IIT Council to, inter alia, improve the gender balance in the undergraduate programs at the IITs from the current (approximately) 8% to 14% in 2018–19 by creating supernumerary seats specifically for female candidates, without any reduction in the number of seats that was made available to non-female candidates in the previous academic year (i.e. academic year 2017–2018).

## JEE Advanced 2023 Eligibility Criteria

Candidates must go through the eligibility criteria before filling out the application form for JEE Advanced 2023. Eligibility criteria for JEE Advanced 2023 are as follows

- **Age Limit:** General candidates and OBC candidates must have been born on or after October 1, 1998. Candidates from SC/ST/PwD categories have an age relaxation of five years. The candidates from SC/ST/PwD must have been born on or after October 1, 1993.
- **Subjects in Class 12th:** Physics, Chemistry, and Mathematics (PCM) are the mandatory subjects for the candidates in class 12th.
- **Percentage:** The JEE Advanced Exam needs a minimum of 75% marks in class 12th or equivalent exams for general and OBC candidates. The candidates from SC/ST/PwD categories must have 65% marks in class 12th.
- **Number of Attempts:** JEE Advanced Exam can be given two times in two consecutive years by the candidates.
- **JEE Main Rank:** The candidates will be eligible for JEE Advanced 2023 only when they will be in the list of top 2,50,000 JEE Main qualified candidates.

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# JEE Advanced 2023 Application Form

Candidates have to fill JEE Advanced 2023 application form online from the official website of JEE Advanced. The candidates have to do the registration and fill the application form in the following way:

- Visit [jeeadv.ac.in](http://jeeadv.ac.in) in your browser
- Log in by entering your JEE Main roll number and password
- A new page will appear asking you for your personal and academic details, preferred language, exam cities, etc
- Submit and move on to the next step
- Upload all the essential documents and proceed
- Pay the application fee for the exam

## JEE Advanced 2023 Exam Pattern

IIT Guwahati will conduct JEE Advanced 2023 as a computer-based exam. There will be two papers in the examination and candidates will get 3 hours for each paper. The candidates have to attend and qualify for both of these papers. Every year the conducting IITs used to changes up in the exam pattern. To know more about the exam pattern read on.

Particulars	Details
Mode of Exam	Online (Computer-based)
Number of papers	Paper 1 & paper 2 (both are mandatory)
Duration	3 hours for each paper (4 hours for PwD candidates)
Subjects	Mathematics, Physics, Chemistry
Type of Questions	MCQs, numeric value-based answer questions, multiple select questions, etc.
Scheme of marking	Expect numerical value answer questions, there are negative markings for every wrong answer. The candidates will find the exact marking scheme on the exam day in the instruction part.

# TREND ANALYSIS FOR JEE MAIN YEAR 2012-2022

JEE Main Entrance Exam for admission into various engineering courses in different engineering colleges and institutes in the country has hit the imagination of the school-going students more than any other entrance test conducted at this level. Without argument, you need to be well-versed with the pattern as well as the level of the questions asked in the exam. A Chapterwise analysis of previous years' questions is called for here, with this objective in mind, we are giving below the chapter-wise analysis (break-up) of the questions asked in last 11 years' of JEE Main

## PHYSICS

Ch. No.	Chapter Name	Number of Question(s) in												
		2012	2013	2014	2015	2016	Ph-1	2017	2018	2019		2020	2021	2022
										9-Jan (M)	9-April (M)	7-Jan (M)	24-Feb (M)	26-June (M)
1	Physical World, Units and Measurements	2	1	2	1	2	1	1	–	1	–	1	2	
2	Motion in a Straight Line	–	–	1	–	–	1	1	–	–	–	1	1	
3	Motion in a Plane	2	1	–	1	–	–	–	1	1	0	0	1	
4	Laws of Motion	1	2	2	1	–	–	1	1	1	0	2	2	
5	Work, Energy and Power	1	1	1	1	2	2	4	2	2	2	1	1	
6	System of Particles and Rotational Motion	–	3	1	2	2	2	3	2	2	3	1	1	
7	Gravitation	1	1	1	1	1	1	–	1	1	1	3	2	
8	Mechanical Properties of Solids	–	–	1	–	–	–	1	–	–	0	1	1	
9	Mechanical Properties of Fluids	1	–	2	–	–	–	1	–	1	0	1	1	
10	Thermal Properties of Matter	–	1	1	1	1	–	–	–	1	1	1	–	
11	Thermodynamics	–	1	1	1	2	–	–	1	2	2	2	1	
12	Kinetic Theory	–	–	1	1	–	2	1	1	2	1	0	1	
13	Oscillations	2	2	1	2	1	1	1	–	1	0	1	1	
14	Waves	1	1	1	1	2	–	1	1	2	1	0	–	
15	Electric Charges and Fields	1	1	–	1	1	1	–	2	–	1	1	1	
16	Electrostatic Potential and Capacitance	1	–	2	2	1	1	2	1	3	1	1	1	
17	Current Electricity	1	2	1	2	1	2	3	4	1	1	2	1	
18	Moving Charges and Magnetism	1	1	1	2	2	1	2	1	3	0	0	1	
19	Magnetism and Matter	–	1	1	1	1	1	–	2	–	0	0	–	
20	Electromagnetic Induction	2	1	–	–	–	1	–	1	1	3	0	2	
21	Alternating Current	–	1	1	2	1	1	2	–	–	1	2	1	
22	Electromagnetic Waves	1	1	2	–	1	–	1	1	1	1	1	1	
23	Ray Optics and Optical Instruments	2	2	1	2	2	1	–	1	1	1	1	1	
24	Wave Optics	1	2	1	1	1	2	2	2	1	2	2	1	
25	Dual Nature of Radiation and Matter	1	1	1	1	1	2	–	1	1	1	1	1	
26	Atoms	1	1	1	1	–	1	2	–	1	1	1	–	
27	Nuclei	1	–	–	–	1	1	–	1	–	0	0	1	
28	Semiconductor Electronics : Materials, Devices and Simple Circuits	1	1	1	1	3	1	1	1	1	1	2	2	
29	Communication Systems	1	1	–	1	1	1	1	–	1	0	1	1	
<b>Total Questions</b>		<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>25</b>	<b>30</b>	<b>30</b>	

## CHEMISTRY

Ch. No.	Chapter Name	Number of Question(s) in												
		2012	2013	2014	2015	2016	Ph-1	2017	2018	2019		2020	2021	2022
										9-Jan (M)	9-April (M)	7-Jan (M)	24-Feb (M)	26-June (M)
1	Some Basic Concepts of Chemistry	–	2	–	1	1	2	1	–	1	1	1	1	2
2	Structure of Atom	2	1	1	1	1	2	–	1	1	1	1	1	1
3	Classification of Elements and Periodicity in Properties	–	1	–	1	1	–	–	1	1	1	1	1	1
4	Chemical Bonding and Molecular Structure	2	3	1	–	1	1	3	1	1	2	1	1	1
5	States of Matter	1	1	2	1	1	–	–	1	1	1	–	–	1
6	Thermodynamics	1	1	1	1	1	2	2	1	1	1	–	–	1
7	Equilibrium	2	1	1	1	1	1	3	2	–	1	2	2	1
8	Redox Reactions	–	1	–	1	–	1	1	–	–	1	1	1	–
9	Hydrogen	1	–	1	1	2	–	–	1	1	1	1	1	1
10	The s-Block Elements	1	2	–	1	1	1	–	1	1	–	1	–	–
11	The p-Block Elements (Group 13 & 14)	–	–	–	–	–	–	2	2	1	–	2	1	1
12	Organic Chemistry : Some Basic Principles and Techniques	–	2	1	2	2	1	–	–	2	–	–	–	–
13	Hydrocarbons	2	–	–	1	2	1	1	–	1	–	2	1	1
14	Environmental Chemistry	1	1	–	–	–	1	1	1	1	–	1	1	1
15	The Solid State	–	1	2	1	–	–	–	–	–	–	1	–	–
16	Solutions	2	1	1	1	1	1	1	2	2	1	1	1	1
17	Electrochemistry	1	2	3	1	–	1	1	1	1	1	–	–	1
18	Chemical Kinetics	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Surface Chemistry	1	1	–	–	1	1	–	1	1	–	1	1	1
20	General Principles and Processes of Isolation of Elements	1	–	1	1	1	–	–	1	1	1	1	1	1
21	The p-Block Elements (Group 15, 16, 17 and 18)	1	–	–	3	2	1	1	–	1	1	–	–	2
22	The d and f-Block Elements	1	1	2	2	1	1	–	1	1	1	2	1	1
23	Coordination Compounds	1	1	1	2	2	1	1	1	2	1	1	1	1
24	Haloalkanes and Haloarenes	1	1	3	1	2	2	1	–	1	2	1	–	–
25	Alcohols, Phenols and Ethers	2	2	2	–	–	1	3	1	–	–	2	1	1
26	Aldehydes, Ketones and Carboxylic Acids	2	1	1	1	1	3	–	3	2	1	1	1	2
27	Amines	–	1	2	1	1	1	1	2	1	1	2	1	1
28	Biomolecules	1	1	1	1	1	1	2	1	1	1	1	1	1
29	Polymers	1	–	1	1	1	1	–	1	1	–	1	1	1
30	Chemistry in Everyday Life	–	–	–	1	1	–	–	–	–	1	–	–	1
31	Analytical Chemistry	–	–	1	–	–	–	2	1	1	2	–	–	2
<b>Total Questions</b>		<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>35</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>25</b>	<b>30</b>	<b>30</b>

# TREND ANALYSIS JEE ADVANCED

Chapters as per NCERT	Physics									Chemistry									Mathematics								
	No. of Questions																										
Ch. No.	2020	2019	2018	2017	2016	2015	2014	2013	2020	2019	2018	2017	2016	2015	2014	2013	2020	2019	2018	2017	2016	2015	2014	2013			
1	-	-	-	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-			
2	2	2	4	1	3	4	2	3	-	3	-	3	1	1	1	1	1	-	1	-	-	-	-	1			
3	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	2	1	2	1	3	1	2	1			
4	1	1	1	1	-	-	1	1	2	1	-	1	1	1	3	1	-	-	-	-	-	-	-	-			
5	-	1	1	-	-	-	1	-	2	1	-	-	2	1	2	-	3	2	1	3	1	2	1	1			
6	1	2	3	1	-	1	3	7	2	1	4	3	1	1	2	4	-	-	-	-	-	-	-	-			
7	4	1	4	6	5	3	3	1	3	1	2	-	2	3	-	3	3	1	2	1	1	1	3	1			
8	-	1	1	1	-	2	1	1	-	-	-	-	-	-	1	1	-	1	1	-	1	1	2	1			
9	-	1	1	-	-	1	-	1	-	-	-	-	-	-	-	-	2	2	1	1	1	1	2	1			
10	4	1	2	1	1	2	4	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1			
11	1	2	1	2	4	1	1	2	1	-	-	1	1	1	1	-	3	4	4	6	6	5	4	4			
12	2	1	3	3	1	-	1	1	2	1	-	3	-	1	1	2	2	-	-	-	-	-	-	-			
13	2	3	-	-	-	2	2	1	1	1	-	-	3	1	-	-	1	-	1	1	1	1	1	-			
14	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
15	2	3	2	2	1	1	2	2	1	-	1	1	1	1	-	1	-	-	-	-	-	-	-	-			
16	3	2	3	1	-	3	3	2	1	2	2	2	2	1	1	-	1	-	2	1	-	-	-	-			
17	2	3	1	-	-	1	1	1	1	-	2	2	1	2	1	1	-	-	1	1	-	1	1	-			
18	2	-	0	-	3	2	4	-	2	3	2	1	2	1	1	2	-	2	2	-	-	1	1	2			
19	1	1	3	5	1	3	4	2	-	1	-	1	-	1	-	1	2	-	-	1	2	1	-	1			
20	-	-	-	-	-	-	-	-	1	2	1	-	1	2	1	2	3	5	2	2	3	1	2	1			
21	2	1	-	2	2	-	-	2	2	4	3	6	3	2	3	5	2	2	4	1	3	2	4	-			
22	1	1	1	4	2	-	-	2	1	4	3	2	3	4	5	3	4	3	1	6	2	2	1	8			
23	-	-	-	-	-	-	-	-	1	1	4	1	2	3	2	3	1	4	4	4	4	8	8	2			
24	2	4	2	2	4	5	3	2	1	1	-	1	2	-	2	2	-	1	2	1	1	1	1	3			
25	1	1	0	1	1	1	1	1	1	2	3	-	2	2	4	2	2	1	2	1	1	2	1	1			
26	2	2	1	1	2	3	2	2	2	4	5	6	4	4	3	4	2	1	2	3	1	4	3	3			
27	1	-	1	1	2	-	-	1	2	1	3	2	1	3	2	-	3	3	2	1	2	2	1	4			
28	-	2	1	1	3	4	-	4	1	1	1	-	2	1	1	1	-	-	-	-	-	-	-	-			
29	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	1	-	2	-	1	3	3	2	4			
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
<b>Total</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>40</b>	<b>40</b>	<b>40</b>			

## MATHEMATICS

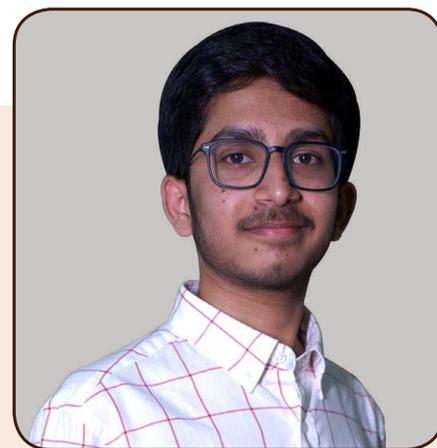
Ch. No.	Chapter Name	Number of Question(s) in												
		2012	2013	2014	2015	2016 Ph-1	2016 Ph-2	2017	2018	2019		2020	2021	2022
										9-Jan (M)	9-April (M)	7-Jan (M)	24-Feb (M)	26-June (M)
1	Sets	1	0	0	0	1	0	1	1	0	0	0	0	1
2	Relations and Functions-I	0	0	0	0	0	0	1	0	0	0	0	0	0
3	Trigonometric Functions	1	2	1	1	2	1	1	1	1	2	1	0	1
4	Principle of Mathematical Induction	0	0	0	0	0	0	4	0	0	0	0	0	0
5	Complex Numbers and Quadratic Equations	1	2	2	2	2	1	0	1	2	1	2	2	2
6	Linear Inequalities	0	0	0	0	0	0	2	0	0	0	0	0	0
7	Permutations and Combinations	0	1	1	2	1	1	3	1	1	1	1	1	1
8	Binomial Theorem	1	2	0	2	2	1	0	1	1	1	0	1	1
9	Sequence and Series	2	2	2	2	2	2	0	2	2	2	2	2	1
10	Straight Lines & Pair of Straight Lines	2	2	2	0	1	0	3	2	1	1	2	1	1
11	Conic Sections	3	3	3	4	4	2	1	4	4	4	1	2	3
12	Limits and Derivatives	0	1	1	0	0	1	2	1	0	0	0	1	0
13	Mathematical Reasoning	1	1	1	1	1	1	2	1	1	1	1	1	1
14	Statistics	1	1	1	1	1	0	1	1	1	1	1	0	1
15	Probability-I	1	0	0	0	0	1	1	0	0	0	0	0	0
16	Relations and Functions-II	0	0	1	1	0	2	1	0	1	0	1	1	1
17	Inverse Trigonometric Functions	0	0	0	1	0	1	1	0	1	0	0	0	1
18	Matrices	0	0	0	1	2	1	2	0	0	0	0	1	0
19	Determinants	2	2	2	1	1	3	1	2	1	2	2	2	2
20	Continuity and Differentiability	2	1	1	1	1	1	1	1	1	2	3	1	1
21	Application of Derivatives	1	1	1	2	3	3	2	2	2	3	2	3	3
22	Integrals	2	3	2	2	1	2	2	2	2	3	1	3	1
23	Applications of Integrals	1	1	1	2	1	2	4	1	1	1	1	1	2
24	Differential Equations	1	1	1	1	1	0	0	1	1	1	1	1	2
25	Vector Algebra	2	1	1	1	1	1	3	1	1	1	1	1	1
26	Three Dimensional Geometry	2	2	2	2	2	2	2	2	3	2	1	2	2
27	Probability-II	1	1	3	0	0	0	2	1	1	1	1	2	1
28	Properties of Triangles	2	0	1	0	0	1	1	1	0	0	0	1	0
<b>Total Questions</b>		<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>25</b>	<b>30</b>	<b>30</b>

# Toppers Read Disha Books

## V C Reddy

# AIR 1

### JEE Advanced 2023



I started my preparation when I was in the eighth standard. During my 11th and 12th I had my final preparation.

I started focused preparation for the Mains exam in January. My daily routine was half a day for Mians, and half a day just Physics, Chemistry and Math. During my half day with regards to Mains, I used to give Previous Year Papers.

In my school I had English and Sanskrit along with Physics, Chemistry and Math. They were already covered in coaching so there wasn't much trouble in Physics, Chemistry and Math but in English and Sanskrit I had to mug them up a month before the board exam.

Mathematics was my favorite subject. There was no difficult subject, I had a little problem with Physics at the start but now it's easy.

I think in the beginning you just have to do math, physics and chemistry with interest and nothing specific to the JEE papers. After your JEE Main is done, you should start with PYQs of JEE Adv. You should attempt it like a JEE Adv paper itself. According to me, PYQs are the most important. In my preparation, I referred to Disha's Errorless 45 years which helped me a lot. In that all the questions are covered chapter-wise and topic-wise with absolutely no errors.

First, whenever a chapter is completed, on that day you should revise your class notes and weekly keep revising again and again. There should be a balance between revision and problem-solving. For Chemistry you can do more of revision and for Math you can do more of problem-solving.

As I was done with my syllabus before the exam there wasn't much left to do. I concentrated more on PYQs, I did the NCERT completely for all the subjects. I think during that period we should concentrate more on staying calm.

I used to play some games like table tennis and foosball. I used to plan my studies so that there wasn't much stress during the preparation. My friends also helped and supported me a lot.

On the final day, you may get nervous but you should focus on staying calm. You should enjoy and give the exam.

I solved Physics first, and then Chemistry followed by Math. So, I used to give 60 minutes to Physics and then solve Chemistry as fast as I could and then I used to be left with more than an hour for Math. I used the same strategy in Physics, Chemistry and Math. I used to stop with Physics at one hour, no matter what and the rest of time for Math I used to solve questions quickly and leave the tough ones for the end if I have time left.

If you know the answer for sure then only you should go for it. If you are even a little doubtful then you should not take the risk. In JEE Adv losing 2 marks is better than negative marking of 2 marks.

It will be different for everyone but I think Physics is the challenging part for most people. Physics is a bit tricky.

# Toppers Read Disha Books

**A. Venkata Siva Ram**

**AIR 5**

JEE Advanced 2023



For preparation, I used to study each subject for around 4 hours. I used to solve problems, and for Chemistry I used to focus on reading the NCERT. I used to focus on solving the previous year's questions.

For my intermediate examinations, I started my preparation one month before the exams were scheduled. The only problem I faced was in English and Sanskrit as I was familiar with Physics, Chemistry, and Math.

No, I think you cannot clear the exam only by NCERT. In the JEE examination, you should do the previous year's questions to determine the level of questions asked in the examination.

For me, Mathematics was the strongest. I have mostly struggled with Chemistry as it has a vast syllabus.

I feel students should start preparing for JEE Adv from the beginning. JEE Main has normal questions but for JEE Adv lot of hard work is required. For JEE Main, I mostly concentrated on NCERT but for Advanced I have changed my plan and practiced a lot. In my preparation, after completing the syllabus I started with revision number 1. I solved the Previous Year's Questions from Disha's 45 years Errorless. It gave me an idea about what kind of questions will be asked in the exam. As they were divided topic-wise it was easy to navigate and revise as I went through my syllabus.

My feeling on the day of the exam was indescribable. I was not confident enough that I will clear the exam. I tried to keep myself calm and concentrate on the examination.

In my JEE Adv exam, I started with Chemistry and then moved to Math. I attempted Physics in the end. I think the subject you find the easiest should be done first, and the subject you find difficult should be done in the end.

I think only if you are sure about an answer you should go for it. Losing marks is better than negative marks.

For me, it was Chemistry because it has a vast syllabus and you need to remember a lot of things.



# Toppers Read Disha Books

**Y. Maneendhar Reddy**

**AIR 10**

JEE Advanced 2023



I started my preparation from 8th standard.

I spent around 12 hours a day studying every day.

Only Sanskrit and English were tough, Physics, Chemistry and Math were already covered in coaching.

I think some problems cannot be cleared just by using NCERTs. To the maximum extent, Chemistry NCERT can help in clearing the Mains exam but Advanced it cannot help with it.

Math was the strongest subject for me and Physics I found to be a little tough.

It will be helpful to prepare for JEE Advanced since the starting as in the end there will not be much difficulty.

I think there should be focus on problems solving as there will be a lot of tough questions in the exam.

All my preparation was completed before the 15 days. But I studied and tried to keep myself calm during that time.

I started thinking about the scenario after the exam and how I will be free.

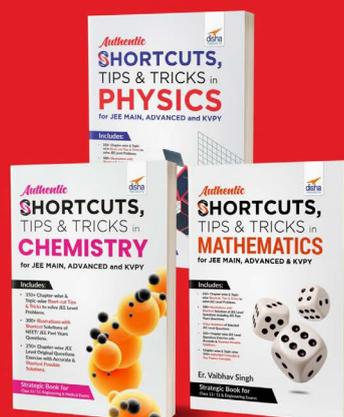
I thought of the exam as a regular exam which helped my stay calm during the JEE Adv exam.

In JEE Main, I first attempted Math, then Physics and then Chemistry. But in JEE Advanced I changed my strategy to first attempting Chemistry followed by Math and then Physics.

I chose only the option in which I was absolutely sure. I didn't go for it if I was even a little doubtful.

I think Math needs the most time as they were a little lengthy.

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COMPANION.**



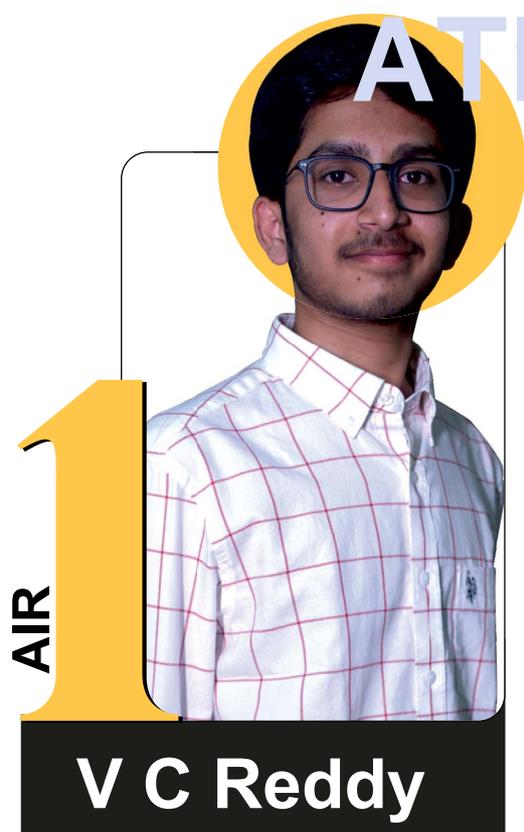


# JEE Advanced 2023

# Topppers Read

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IS SWEET.

*-Aristotle*



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