

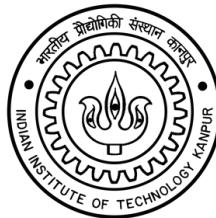


सत्यमेव जयते
Ministry of Education
Government of India



SATHEE

An initiative by MoE & IIT Kanpur



Student Help Booklet

SATHEE is a **Free Learning Platform** providing guidance and study resources to students for entrance exams like **Engineering** (JEE), **Medical** (NEET), **Law** (CLAT), **Agriculture** (ICAR), **University Entrance Test** (CUET), and for competitive exams like **Staff Selection Commission** (SSC), **Railway** (RRB), and **Banking** (IBPS)

What SATHEE provides for free ?



10000+ hours of video lectures from IIT Professors/subject experts



Mentorship sessions from the students of **IIT, AIIMS** and **other premiere institute**



Test series: All India mock tests, PYQs, topic and subject wise tests



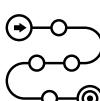
Daily live doubt clearing sessions over zoom



Study material available in **English, Hindi and 11 Indian regional languages**



AI Based analytics to track your learning and progress



Complete mapping of CBSE/State board syllabus for board exams



80,000+ questions to practice

**STEP
01**

How to access the SATHEE website ?

Search '**SATHEE**'
and visit
<https://sathee.iitk.ac.in/>

or scan this QR Code



Google SATHEE

All Images Videos News Shopping Maps Books More Tools

SATHEE

NCERT Exercise Video Solution ... The Ministry of Education has launched the SATHEE initiative in association with IIT Kanpur to provide free guidance for ...

JEE

NCERT Exercise Video Solution ... The Ministry of Education has ...

NEET

NCERT Exercise Video Solution ... The Ministry of Education has ...

SATHEE SSC

SATHEE is an initiative of the Ministry of Education and IIT ...

Register in our website

NCERT Exercise Video Solution ... The Ministry of Education has ...

CBSE NCERT

The Ministry of Education has launched the SATHEE initiative ...

**STEP
02**

Getting started with SATHEE

Upon visiting SATHEE website you will see the home page on your screen

1 Select the exam you are preparing for



Once you select the exam you will be redirected to the exam specific website

1

2

3

4

4 Shortcut to switch among exam website

5 Click on this icon to access the AI-Enabled chatbot which will help you with your quires

2 Countdown timer to help you plan for your next exam

3 Click on **daily live doubt session** which will re-directed to a zoom session where you can ask doubts you have related to the subject

WELCOME TO SATHEE

ONLINE DOUBT CLEARING SESSION
"WE ARE HERE TO HELP YOU"

LIVE

PHYSICS **CHEMISTRY**
MATHEMATICS **BIOLOGY**

**STEP
03**

How to enroll in a course ?

1. SATHEE has a tailored program for students who are in class 9-12th and for 12th pass out students

2. Click on "Enroll for Free" in the course that you want

3. You will be re-directed to registration page.

Start Your Journey With SATHEE Courses

Engineering exam preparation courses by IIT Professors/Subject Experts



JEE MAINS
PREPARATION FOR CLASS 11th
PHYSICS CHEMISTRY MATHEMATICS
BY IIT PROFESSORS / SUBJECT EXPERTS

Class 11th
Structured Lectures for In-depth Learning
Mock Tests with AI based analysis
Live Doubt Resolution

[Enroll For Free >](#)



JEE MAINS
PREPARATION FOR CLASS 12th
PHYSICS CHEMISTRY MATHEMATICS
BY IIT PROFESSORS / SUBJECT EXPERTS

Class 12th
Systematic Lectures for Extensive Insight
Mock Tests with AI based analysis
Live Doubt Resolution

[Enroll For Free >](#)



JEE MAINS
PREPARATION FOR CLASS 12
PASSOUT
PHYSICS CHEMISTRY MATHEMATICS
BY IIT PROFESSORS / SUBJECT EXPERTS

Class 12th Passout
Optimized Learning with structured classes
Mock Tests with AI based analysis
Live Doubt Resolution

[Enroll For Free >](#)

Foundation courses by IIT Alumni/Subject Experts



FOUNDATION COURSE
For Class 9th
WITH SATHEE

Lectures by IIT Alumni/Subject Experts
Build a strong fundamental
Topic-wise Science and Maths lecture
Live Doubt Resolution

[Enroll For Free >](#)



FOUNDATION COURSE
For Class 10th
WITH SATHEE

Lectures by IIT Alumni/Subject Experts
Create a Robust Base
Topic-wise Science and Maths lecture
Live Doubt Resolution

[Enroll For Free >](#)

**STEP
04**

How to register on the SATHEE platform ?



SATHEE
Engineering
(Self Assessment, Test and Help for Entrance Exams)

This is a testing platform designed to help you prepare for engineering exams. The platform contains mock tests and topic wise tests to assess your exam preparation. Register to start using the platform. In case you face any difficulties, please email or WhatsApp us.

Powered by Prutor, Technology developed at IIT Kanpur

Sign Up/In and start your exam preparation

[Sign In](#) [Sign Up](#)

Candidate's Name*

Email Id*

Mobile Number

Gender*
 Male Female Other

State*

District*

City*

Social Group

School Type*
 KV JNV Punjab Gov Other

Enter Class

School Name*

Register for Course

Submit

Fill in all the details and click on submit

A password reset link will be sent to your mail

Click on the link and reset the password

Sign in with your email and password

You are ready to start

STEP 05

Navigating the student dashboard

After signing in you will have dashboard on your screen. The dashboard is divided into different parts like **Learning, Test and Reports**. The Student's dashboard has all the features you require for a better Exam preparation. Go to the **Learn** Tab to access the learning material

LEARN

1 **Start Your Journey With SATHEE Courses**
Engineering exam preparation courses by IIT Professors/Subject Experts

JEE MAINS PREPARATION FOR CLASS 11
Physics, Chemistry, Mathematics
BY IIT PROFESSORS / SUBJECT EXPERTS

JEE MAINS PREPARATION FOR CLASS 12
Physics, Chemistry, Mathematics
BY IIT PROFESSORS / SUBJECT EXPERTS

JEE MAINS PREPARATION FOR CLASS 12 PASSOUT
Physics, Chemistry, Mathematics
BY IIT PROFESSORS / SUBJECT EXPERTS

Class 11th
Structured Lectures for In-depth Learning
Mock Tests with AI based analysis
Live Doubt Resolution

Class 12th
Systematic Lectures for Extensive Insight
Mock Tests with AI based analysis
Live Doubt Resolution

Class 12th Passout
Optimized Learning with structured classes
Mock Tests with AI based analysis
Live Doubt Resolution

01 UNITS AND MEASUREMENTS XI
Units of measurement, system of units, SI units, fundamental...
Accuracy And Precision Of Measuring Instruments...
Dimensions Of Physical Quantities, Dimensional Analysis ...

02 MOTION IN A STRAIGHT LINE XI
Simple Experiments Based On Basic Principles Of Mechanics.

Experiments Based On Basic Principles Of Mechanics - Prof. Hc Verma

Lecture
0.11 x 03 x 01 Simple Experiments Based On Basic Principles of Mechanics

Conceptwise Videos

Demonstration of friction

Explaining experiment

Experiment based on related

Experiment demonstrating that

Click on "Recorded Lectures" to access video lectures by IIT Professors

2 **45 days Crash Course for JEE Mains**

Crash Course
For IIT aspirants!
IN ENGLISH

क्रैश कोर्स
जीएमेंस के लिए

ରୁପ୍ତ କେନ୍ସର୍
ଜୀଏମ୍ସ୍ ପାଇସନ୍ଟ୍

JEE Mains 2024 English
In-depth and consized learning
Comprehensive Mock Test
Live Doubt Resolution

JEE Mains 2024 Hindi
In-depth and consized learning
Comprehensive Mock Test
Live Doubt Resolution

JEE Mains 2024 Kannada
In-depth and consized learning
Comprehensive Mock Test
Live Doubt Resolution

JEE Mains 2024 Bengali
In-depth and consized learning
Comprehensive Mock Test
Live Doubt Resolution

JEE Mains 2024 Malayalam
In-depth and consized learning
Comprehensive Mock Test
Live Doubt Resolution

JEE Mains 2024 Marathi
In-depth and consized learning
Comprehensive Mock Test
Live Doubt Resolution

3 Foundation courses by IIT Alumni/Subject Experts

FOUNDATION COURSE
For Class 9th
WITH SATHEE

FOUNDATION COURSE
For Class 10th
WITH SATHEE

Build a strong fundamental
Topic-wise Science and Maths lecture
Live Doubt Resolution

Create a Robust Base
Topic-wise Science and Maths lecture
Live Doubt Resolution

Click on "Crash Course" for a quick coverage of essential topics in English, Hindi and 11 other Indian regional languages

Click on "Foundation Courses" to access video lectures for students in class 9th and 10th by IIT and AIIMS Students

4 **Physics**

Physics NCERT Tutorials
Ananya P. Mukherjee
IIT Kanpur

Physics NCERT Tutorials
Shreyas Goel
IIT Kanpur

Physics NCERT Tutorials
Shuvadip Ghosh
IIT Kanpur

Physics
NCERT-Focused Foundational Lectures
NCERT Exercises with Solutions
Live Doubt Resolution

Physics
NCERT-Focused Foundational Lectures
NCERT Exercises with Solutions
Live Doubt Resolution

Physics
NCERT-Focused Foundational Lectures
NCERT Exercises with Solutions
Live Doubt Resolution

Click on "NCERT Tutorials" to access video lectures based on NCERT textbooks by IIT and AIIMS Students

5 **Webinars**

JEE का तोड़

JEE KA तोड़
Anjali Negi
Dept. of Physics
IIT Kanpur

JEE KA तोड़
Apoorv Tandon
Dept. of Computer Science IIT Kanpur

JEE का तोड़
Raghav Madaan
Dept. of Electrical Engg.
IIT Kanpur

JEE का तोड़
Yogesh Nain
Dept. of Electrical Engg.
IIT Kanpur

Watch Now >

Watch Now >

Watch Now >

Watch Now >

Click on "Webinar" for mentorship sessions and "Solve with Me" sessions by IIT and AIIMS Students



Comprehensive material along with video lectures

When you open the recorded lectures you will find more resources and tools to help you with deep understanding of that topic

1 [Go Back](#)

Physics 11

Units And Measurement

Motion In A Straight Line

Motion In Plane

Laws Of Motion

Work Energy And Power

Systems of Particles And Rotational Motion

Units And Measurement

1.1 INTRODUCTION

Measurement of any physical quantity involves comparison with a unit. The result of a measurement of a physical quantity is express of physical quantities appears to be very large, we need only a limit interrelated with one another. The units for the fundamental or base quantities can be expressed as combinations of the base units. Such these units, both the base units and derived units, is known as

1.2 THE INTERNATIONAL SYSTEM OF

Click on “NCERT and Reference Books Material” for foundational knowledge of topic

Previous Year Questions (PYQ)

Previous Year Questions

- 2017
- 2018
- 2019
- 2023

Physics
Chemistry

Click on “Previous Year Exams Problems” to know the questions that came from the topic in previous exams

Shortcut Methods

1. Know Common Conversions by Heart
 - Memorize common unit conversions such as 1 meter =
2. Use Scientific Notation
 - When working with very large or very small numbers, u
3. Leverage Dimensional Analysis
 - When you need to derive a formula or check the validity you identify incorrect answers quickly.
4. Shortcut for Square and Cube Units

Click on “Shortcut Methods” to enhance your recall

S.No.	Physical Quantity	SI Unit	Symbol
1	Length	Metre	m
2	Mass	Kilogram	Kg
3	Time	Second	s
4	Electric Current	Ampere	A

Click on “Formulas to Remember” to recall important formulas

Units of measurements, systems of units, SI units, fundamental.. - Prof. Sanjeev Sanghi

Complete Lecture



Conceptwise Videos



NCERT and Reference Books Material

NCERT and Reference Books Material 01

Previous Year JEE Exams Problems

Previous Year Exams Problems 01

Shortcut Methods

Shortcut Methods 01

Shortcut Methods 02

Concepts to Remember

Concepts to Remember 01

Exercises From NCERT

Exercises From NCERT Chapter 01

Notes from the JEE Toppers

Notes from the JEE Toppers 01

Formulas to Remember

Formulas to Remember 01

Mind Maps

Mind Maps 01

Mind Maps 02

Mind Maps 03

Mind Maps 04

Mind Maps 05

Mind Maps 06

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Mind Maps 08

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**STEP
06**

Navigating the student dashboard for Test

To access the test Series on SATHEE, go to the “**Test**” tab on student dashboard, you will see **Mock Test** and **Subject Wise Tests** options(as shown in image below)

TEST

1 Mock Test Currently Open Test

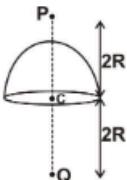
Test	Attempt here
Mock Test 1	Click Here
Mock Test 2	Click Here
Mock Test 3	Click Here
Mock Test 4	Click Here
Mock Test 5	Click Here
Mock Test 6	Click Here
Mock Test 7	Click Here

JEE MAIN Remaining Time: 2h: 59m: 53s Physics Chemistry Mathematics English 2024

Question No: 35

If gravitational field due to uniform thin hemispherical shell at point P is I, then the magnitude of gravitational field at Q is (Mass of hemispherical shell is M, radius is R)

$\frac{GM}{2R^2} - I$
 $\frac{GM}{2R^2} + I$
 $\frac{GM}{4R} - I$
 $2I - \frac{GM}{2R^2}$



SAVE & NEXT CLEAR SAVE & MARK FOR REVIEW MARK FOR REVIEW & NEXT SUBMIT

Click on “**Mock Test**” to access real time exam like pattern and questions to make you exam ready

All Courses

LEARN

TEST

1 Mock Test

2 Subject wise test

2 Subject-Wise Tests

PHYSICS
Physics Test

CHEMISTRY
Chemistry Test

MATHEMATICS
Mathematics Test

BIOLOGY
Biology Test

Click on “**Subject wise Test**” and choose the subject you want to take the test for

JEE MAIN Remaining Time: 58m: 30s

Question No: 1

In a special arrangement of Young's double-slit experiment, the distance between the slits d is twice the distance between the screen and the slits D, i.e $d = 2D$. For this setup, the value of D such that the first minima on the screen fall at a distance D from the centre O is found to be $\frac{\lambda}{N}$

SAVE & NEXT CLEAR SAVE & MARK FOR REVIEW MARK FOR REVIEW & NEXT SUBMIT

Attempt the test

Physics Topicwise Test Ongoing**Test**

Specific Heat Capacity and Thermodynamical Processes	Click Here
Photon, Photoelectric Effect X-rays and Davisson-Germer	Click Here
Time Period, Frequency, Simple Pendulum and Spring	Click Here
Young's Double Slit Experiment	Click Here
Radioactivity	Click Here
Calorimetry and Heat Transfer	Click Here
Capacitors, Grouping of Capacitor	Click Here

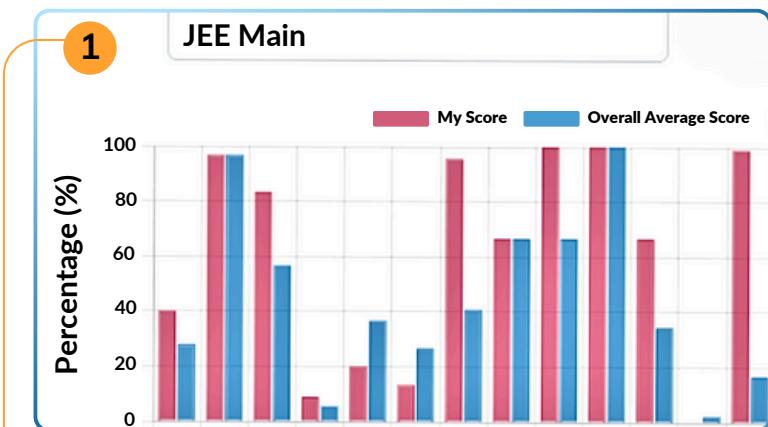
- After selecting the subject you will have the list of topics of the subjects
- Select the topic to begin the test

**STEP
07**

Navigating the student dashboard for Analytics

To access the analytics on SATHEE, go to the “**Report**” tab on student dashboard, you will see **Performance Analysis**, **Topic-Wise Analysis**, and **Attempted Quiz** options (as shown in image below)

ANALYTICS



**STEP
08**

Navigating the student dashboard for Live Classes

Topic Wise Live Lectures

- Physics**
- Chemistry**
- Mathematics**
- Live Classes**



Physics Lecture JEE 2024-25

Chapter: Kinematics

Physics For JEE-Main 2024 | Kinematics by MD Faaiz VK, AIIMS Nagpur | EN | Day 1

Watch later

KINEMATICS

Let's Begin Now!!!

Starts on: 21st Nov 2023, Tuesday

Watch on YouTube

MD Faaiz VK
AIIMS Nagpur

Chapter: Laws of Motion Part- 2

Laws of Motion Part- 2

Physics For JEE-Main 2024 | Laws of Motion
PHYSICS FOR JEE-MAIN 2024
45 DAYS CRASH COURSE

LAWS OF MOTION PART- 2

Watch on YouTube

Param Soni
IIT Kanpur

To access Live Lectures go to "**Topic Wise Live Lectures**" and click on the subject that you want to attend the class for

**STEP
09**

Accessing the additional resources

Engineering Preparation

- Physics 11th
- Physics 12th
- Chemistry 11th
- Chemistry 12th
- Mathematics 11th
- Mathematics 12th
- JEE Previous Year Questions
- JEE Tutorial Sessions

NCERT Books & Solutions

- NCERT Books for JEE
- NCERT Solutions for JEE
- NCERT Exemplar for JEE

Important Resources

- Physics Formulas
- Chemistry Formulas
- Mathematics Formulas
- Useful Articles

Other Resources

- Media Coverage
- Help Videos

Syllabus
JEE Syllabus**Mentorship**
Mentorship for JEE**NCERT Exercise Video Solution**
NCERT Exemplar Video Solutions
NCERT Exercise Video Solutions

Scroll down to the bottom of the page, you will find additional resources like **PYQ of JEE/NEET**, **JEE/NEET Tutorial Sessions**, **NCERT Books with Solution**, **JEE/NEET Syllabus**, **Important formulas** and **Notes** to help you with your preparation

**+91-8882336432****https://sathee.iitk.ac.in****prutor@iitk.ac.in**