



सत्यमेव जयते
Ministry of Education
Government of India



An initiative by MoE & IIT Kanpur



Student Help Booklet

SATHEE is a **Free Learning Platform** providing guidance and study resources to students for competitive exams like **Engineering (JEE)**, **Medical (NEET)**, **Law (CLAT)**, **Agriculture (ICAR)**, **University Entrance Test (CUET)**, as well as for competitive exams preparation like the **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



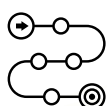
Daily live doubt clearing sessions over zoom



Study material available in **English, Hindi and 11 regional Languages**



AI Based analytics to track your learning and progress



Complete mapping of CBSE/State board syllabus for board exams



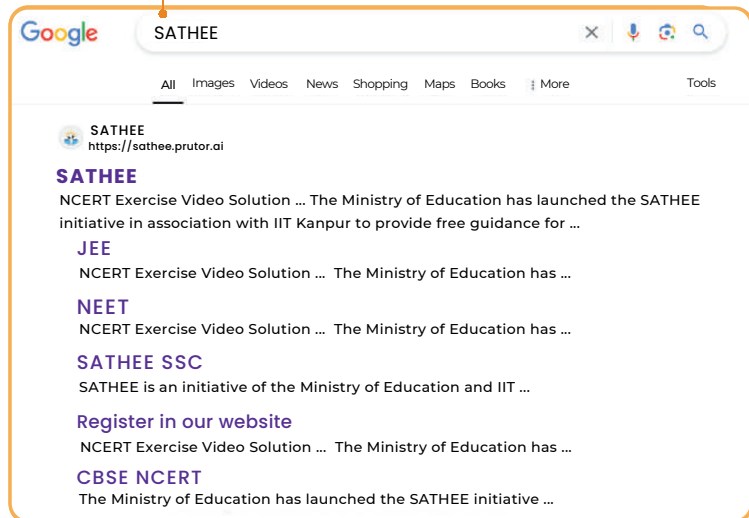
80,000+ questions to practice

STEP 01

How to access the SATHEE website ?

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

or scan this QR



STEP 02

Getting started with SATHEE

On visiting SATHEE website, you will see this page on your screen

1 Select the exam you are preparing for

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

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 next exam

3 Click on **daily live doubt session**, you will be re-directed to live zoom session where you can ask any doubt you have related to that 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 from class 9-12th and 12 passout students

2. Click on **"Enroll for Free"** in the course that suits you the best

3. You will be re-directed to registration page after you select your course

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



Class 11th

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

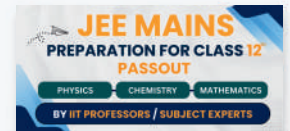
Enroll For Free >



Class 12th

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

Enroll For Free >



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



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

Enroll For Free >



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 ?



Ministry of Education
Government of India



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*

Enter your name here

Email Id*

Enter your email here

Mobile Number

Mobile no. (Preferably Whatsapp)*

Gender*

Male Female Other

State*

Select State

District*

Select District

City*

Enter your of class school city here

Social Group

Select Social Group

School Type*

KV JNV Punjab Gov Other

Enter Class

9th

School Name*

Select 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 now ready to start

STEP 05

Navigating the student dashboard

After signing in you will have dashboard on your screen. The dashboard is divided in different parts like **Learning, Test and Reports**. The Student dashboard has all the features you require for 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

Class 11th

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

Watch Now >

JEE MAINS PREPARATION FOR CLASS 12

Class 12th

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

Watch Now >

JEE MAINS PREPARATION FOR CLASS 12 PASSOUT

Class 12th Passout

Optimized Learning with Structural classes
Mock Tests with AI based analysis
Live Doubt Resolution

Watch Now >

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

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

- All Courses
- LEARN
- 1 Recorded Lectures
- 2 Crash Courses
- 3 Foundation Courses
- 4 Ncert Tutorial
- 5 Webinar
- TEST
- REPORTS
- Topic Wise Live Lectures
- Contact Us

2 45 days Crash Course for JEE Mains

Crash Course

JEE Mains 2024 English

In-depth and consized learning
Comprehensive Mock Test

Enroll For Free >

क्रेश कोर्स

JEE Mains 2024 Hindi

In-depth and consized learning
Comprehensive Mock Test

Enroll For Free >

ಕ್ರಾಶ್ ಕೋರ್ಸ್

JEE Mains 2024 Kannada

In-depth and consized learning
Comprehensive Mock Test

Enroll For Free >

ಕ್ರಾश कोर्स

JEE Mains 2024 Bengali

In-depth and consized learning
Comprehensive Mock Test

Enroll For Free >

ഇടക്കാല ക്രാശ്

JEE Mains 2024 Malayalam

In-depth and consized learning
Comprehensive Mock Test

Enroll For Free >

क्रेश कोर्स

JEE Mains 2024 Marathi

In-depth and consized learning
Comprehensive Mock Test

Enroll For Free >

Click on "Crash Course" for short term courses covering essential topics in English, Hindi and 11 Regional Languages

3 Foundation courses by IIT Alumni/Subject Experts

FOUNDATION COURSE For Class 9th

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

Watch Now >

FOUNDATION COURSE For Class 10th

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

Watch Now >

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

4 Physics

Physics NCERT Tutorials

Ananya P. Mukherjee
IIT Kanpur

Physics

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

Watch Now >

Physics NCERT Tutorials

Shreyank GaeI
IIT Kanpur

Physics

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

Watch Now >

Physics NCERT Tutorials

ShuvadiP Ghosh
IIT Kanpur

Physics

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

Watch Now >

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

5 Webinars

JEE का तोड़

JEE का तोड़

Anjali Negi
Dept. of Physics
IIT Kanpur

Watch Now >

JEE का तोड़

Apoorv Tandon
Dept. of Computer Science
IIT Kanpur

Watch Now >

JEE का तोड़

Raghav Madaan
Dept. of Electrical Engg.
IIT Kanpur

Watch Now >

JEE का तोड़

Yogesh Nain
Dept. of Electrical Engg.
IIT Kanpur

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 find many 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 bas 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 the topic

2

Previous Year Questions (PYQ)

Previous Year Questions

- 2017
- 2018
- 2019
- 2023

Physics

Chemistry

Click on "PYQ" to know the questions came from that topic in previous exams

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

Complete Lecture

Conceptwise Videos

Introduction to topic

What is a system of units and sizes of measurements

1 NCERT and Reference Books Material

2 Previous Year JEE Exams Problems

3 Shortcut Methods

4 Concepts to Remember

5 Exercises From NCERT

6 Exemplar Problems

7 Related Problem with Solution

8 Notes from the JEE Toppers

9 Formulas to Remember

10 Mind Maps

6 **Chapter 01 Units and Measurements**

Multiple Choice Questions (MCQs)

1. The number of significant figures in 0.06900 is

(a) 5 (c) 2

(b) 4 (d) 3

Show Answer

Click on "Exemplar Problems" to practice better

7 **Related Problems with solution**

Problem 1: The speed of sound in air at a certain temperature

Solution:
To convert meters per second to kilometers

[1 m/s = 3.6 km/h]

Click on "Related Problems with Solutions" to increase your problem solving skills

3

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 validi you identify incorrect answers quickly.
4. Shortcut for Square and Cube Units

Click on "Shortcut Methods" to enhance your recall

9

Fundamental Units

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

8 **Units of Measurement - Systems of Units**

Reference: NCERT Physics, Class 11, Chapter 2 ("Units and Measurements")

Subtopics:

1. Measurement and Units
 - Concept of measurement and its significance.
 - Different types of physical quantities and their units.
 - Need for standardization of units.
2. Systems of Units

Click on "Notes from JEE toppers" for concise recap

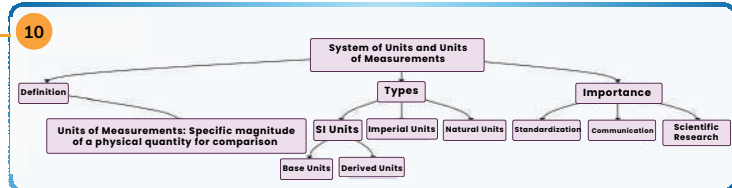
4

Units-Of-Measurement-Systems-Of-Units-Si-Units

Units of Measurement

1. Length:
 - 1 meter (m) = 100 centimeters (cm)
 - 1 meter (m) = 1000 millimeters (mm)
2. Mass:

Click on "Concept to Remember" to know the important topic



Click on "Mind Maps" to visualize, organize, connect, and remember information effectively

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

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 of

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

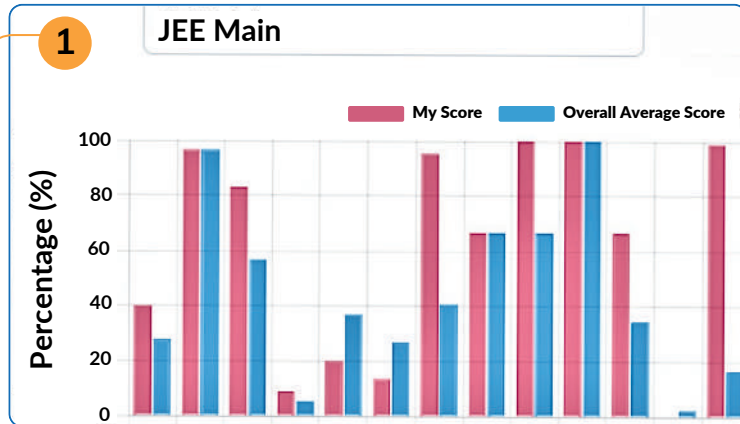
- After selecting the subject you will have the list of topics of that subjects
- Select the topic to begin the test

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



Click on **“Performance Analysis”** to review test results with detailed performance insight and comparison

- ### REPORTS
- 1 Performance Analysis
 - 2 Topic-Wise Analysis
 - 3 Attempted Quiz

2 Knowledge Tree Unattempted Incorrect Correct

Subject	Unattempted	Incorrect	Correct
Physics	49%	89%	
Physical world, Units and Measurements	53%	100%	
Unit of Physical Quantities			
Dimensions of Physical Quantities	50%	100%	
Errors in Measurements & Experimental physics	66%	100%	
Miscellaneous (Mixed concepts) problems			
Motion in a Straight Line	58%	83%	
Distance, Displacement & Uniform Motion			
Non-uniform Motion	87%	100%	

Click on **“Attempted Quiz”** to track and review quizzes you have attempted

3 Example





Example	Attempted
D-Block Elements	Attempted
F-Block Elements	Attempted
Factorials and Permutations	Not Attempted
Area Under Curve	Not Attempted
Family of lines	Not Attempted

Click on **“Topic-Wise Analysis”** to see percentage score, accuracy and number of questions that were attempted in the test

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 Faaz VK, AIIMS Nagpur | EN | Day 1

Physics For JEE Main 2024

KINEMATICS

Let's Begin Now!!!

Starts on: 21st Nov 2023, Tuesday

MD Faaz VK
AIIMS Nagpur

Chapter: Laws of Motion Part- 2

Laws of Motion Part- 2

PHYSICS FOR JEE-MAIN 2024
45 DAYS CRASH COURSE

LAW OF MOTION PART- 2

Param Sont
IIT Kanpur

Chapter: Electro Magnetic Induction

Electro Magnetic Induction

PHYSICS FOR JEE-MAIN 2024
45 DAYS CRASH COURSE

ELECTRO MAGNETIC INDUCTION

To access Live Lectures go to “**Topic Wise Live Lectures**” and click on the subject that you want to attend the class of

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

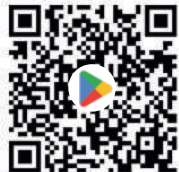
Mentorship for JEE

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

Scan for



Mobile App

Also available on 



+91-8882336432



<https://sathee.iitk.ac.in>



prutor@iitk.ac.in

Scan for



Website