

# MKCL'S MASTERING JEE (MAIN)

*SUBMITTED BY MAHARASHTRA KNOWLEDGE CORPORATION LIMITED  
(MKCL)*

This document defines the offering for students of Intermediate (class 11 and class 12) Science stream which will enable them to prepare and perform well in the State Board Examinations as well as Joint Entrance Examinations (JEE) (Main)

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Mastering JEE and Mastering NEET Test Series details:

Table of Contents

<b>1</b>	<b>NAME OF THE TEST SERIES .....</b>	<b>2</b>
<b>2</b>	<b>TEST SERIES ESSENTIALITY AND TEST SERIES ELIGIBILITY .....</b>	<b>2</b>
<b>3</b>	<b>TEST SERIES DURATION .....</b>	<b>2</b>
<b>4</b>	<b>MEDIUM OF LEARNING.....</b>	<b>2</b>
<b>5</b>	<b>DELIVERY MODEL .....</b>	<b>3</b>
<b>6</b>	<b>COURSE CURRICULUM .....</b>	<b>3</b>
<b>7</b>	<b>ACADEMIC METHODOLOGY .....</b>	<b>3</b>
<b>8</b>	<b>FINANCIAL DETAILS: .....</b>	<b>6</b>
<b>9</b>	<b>RECOMMENDED LAB SETUP - ANNEXURE 1 .....</b>	<b>6</b>
<b>10</b>	<b>STUDENT LIFE CYCLE:.....</b>	<b>6</b>
<b>11</b>	<b>SUPPORT .....</b>	<b>7</b>
<b>12</b>	<b>ANNEXURE-1: .....</b>	<b>7</b>

## 1 Name of the Test Series

### Mastering JEE (Mains)

This is MKCL's practice test series to enable the Intermediate (11<sup>th</sup> and 12<sup>th</sup> class) students of Science stream to prepare for their Board Examinations as well as Competitive Entrance Examinations on the National level.

## 2 Test Series Essentiality and Test Series Eligibility

Test Series Essentiality:

- To prepare students to get admissions into top Engineering colleges by drilling concepts into them with lots of practice and customized feedback.
- To help student gain confidence to take JEE (MAINS) by providing them with 28 subject wise preliminary exams.
- To give them encouragement, added edge, focus and support!
- To instill discipline in studies and sincerity in students via weekly tests which will be available only in pre-planned week

Test Series Eligibility: Students who are currently in 11<sup>th</sup> and 12<sup>th</sup> standard science stream.

## 3 Test Series Duration

Level	JEE (Main)	Minimum weeks
Class 11 <sup>th</sup>	2016	25 weeks
Class 12 <sup>th</sup>	2015	25 weeks

\* Number of weeks required depends on students and colleges. However minimum 25 weeks will definitely be required to complete all the tests.

## 4 Medium of Learning

The medium of learning shall be English.

## 5 Delivery Model

- Junior science colleges will first register with MKCL, and later will register students with MKCL
- MKCL's e learning framework will be installed in college's computer lab which will then register their students into the system.
- Physical and IT infrastructure will be provided by college and MKCL will provide with technical support as well as content.
- **Student will have to visit college and give the chapter wise test and combo tests every week in his college computer lab** which will have MKCL's e-learning framework already installed in it.

## 6 Course Curriculum

Curriculum will be same as that JEE (Main) syllabus.

## 7 Academic Methodology

Feature	Benefits to students
<p>1. <i>Thoroughly planned Tests</i>: Three type of tests that would be taken;</p> <p>a. Chapter wise tests: Individual chapter wise tests for all chapters of Physics, Chemistry, Mathematics and Biology. Sequence of tests would be set by professor himself</p> <p>b. Combo tests: This would have all of the previously covered chapters weekly. Thus along with the chapter wise test scheduled for that week you will also give a test comprising of all previously learned chapters</p> <p>c. Preliminary tests: At the end; there would be <b>28 tests</b> taken having full portion of Physics, Chemistry, Mathematics and Biology in JEE (Main) and NEET format.</p>	<p><b>a. Chapter wise tests:</b></p> <ul style="list-style-type: none"> <li>• Test your chapter wise preparedness</li> <li>• You will be able to plan your studies properly</li> </ul> <p><b>b. Combo tests:</b></p> <ul style="list-style-type: none"> <li>• Never get out of touch with the previously taught chapter.</li> <li>• Revision of all chapters from the beginning to the end maximum number of times.</li> </ul> <p><b>c. Preliminary tests:</b></p> <ul style="list-style-type: none"> <li>• You will be fully prepared for JEE (Main)</li> <li>• Familiarize you with JEE(Main) environment</li> </ul>

2. <i>Conceptual Distractors</i> : The questions would be set in such a manner that the 4 Multiple Choice Question options would be really similar conceptually	<ul style="list-style-type: none"> <li>You will have to understand the concepts clearly in order to answer them</li> </ul>
3. <i>Exploriments</i> : Unlimited access to 400+ experiments on science will be made available to you throughout the year on computer for them to explore and learn the concepts.	<ul style="list-style-type: none"> <li>Better understanding of concepts resulting in better marks in JEE(MAINS)</li> </ul>
4. <i>Learning while evaluating</i> : After each test, your answers and model answers will be shown.	<ul style="list-style-type: none"> <li>You will be able to know your scores and learn correct answers</li> </ul>
5. <i>Detailed feedback</i> : Will consist of concepts which you need to work upon, which were attempted wrongly.	<ul style="list-style-type: none"> <li>You will be able to know specific area where you need to work on.</li> </ul>
6. <i>Analysis Booklet</i> : After every test, a detailed analysis would be generated which will remain in student's log in for whole year. Students would be able to download and take all of them in pen drive or mail the	<ul style="list-style-type: none"> <li>Revision would be much simpler and student will be able to track their progress in all the subjects</li> </ul>

Features that makes this course stands out;

### **Exploriments:**

Imagine a Physics lab where you want to practice some more on your Pendulum experiment but the Practical session is over and you need to vacate the lab for another class. How would it be if you could practice more on the computer in an online mode, and visualize and perform as many scenarios as you could for the experiment, and watch the results? In the process your concepts would get cleared as well. That is what an "Exploriment" is.

**exploriments** IL&FS | Education

**Pendulum - Effect Of Length**

**Pendulum - Effect of Length on Time Period**  
 To determine that the Time Period of Pendulum is proportional to square root of its Length.  
 Attach the red ball to the pendulum, and calculate the time period (one time period is one full swing, to and fro). You need to find the time period for 20 swings, and divide by 20 to get the time period for one swing. Repeat the experiment for lengths of 100, 110, 120, 130, 140, and 150cm, and fill in the table below. Press on Help or Demo, to understand how the pendulum works.

Length = 150 cm Demo  
Help

Place for Body

00:00  
 Reset Start Stop

Calculator

Pendulum Length (cm)	Time for 20 swings (sec)	Time for 1 swing (sec) - T	T <sup>2</sup>
100	40.00	2.00	4.00
110			
120			
130			
140			
150			

Graph showing T<sup>2</sup> (sec<sup>2</sup>) vs Length (cm). The graph shows a linear relationship between T<sup>2</sup> and Length.

There are 400+ such exploriments for students to perform, explore and learn.

## Conceptual Distractors:

Imagine a question, wherein the Multiple Choice Answer Options are so similar that you need to be absolutely clear in your concepts to be able to attempt them?



## Detailed Analysis:

After every test a detailed analysis gets generated automatically, which provides the following analysis:

1. **Brief Scorecard:** It would contain marks scored out of total marks, as well as percentage and rank.
2. **Question wise analysis:** It would contain explanation for all the questions as well the explanation as to why the student has chosen the wrong answer
3. **Topic wise analysis:** It suggests student's strong topics as well as weak topics based on the performance in particular test. This helps students to know where they need to work upon
4. **Difficulty level wise analysis:** This shows their accuracy level for questions belonging to different difficulty levels.

This analysis can be downloaded by students and taken home in a pen drive or mail. It would be there in student's log-in whole year round.



## 8 Financial Details:

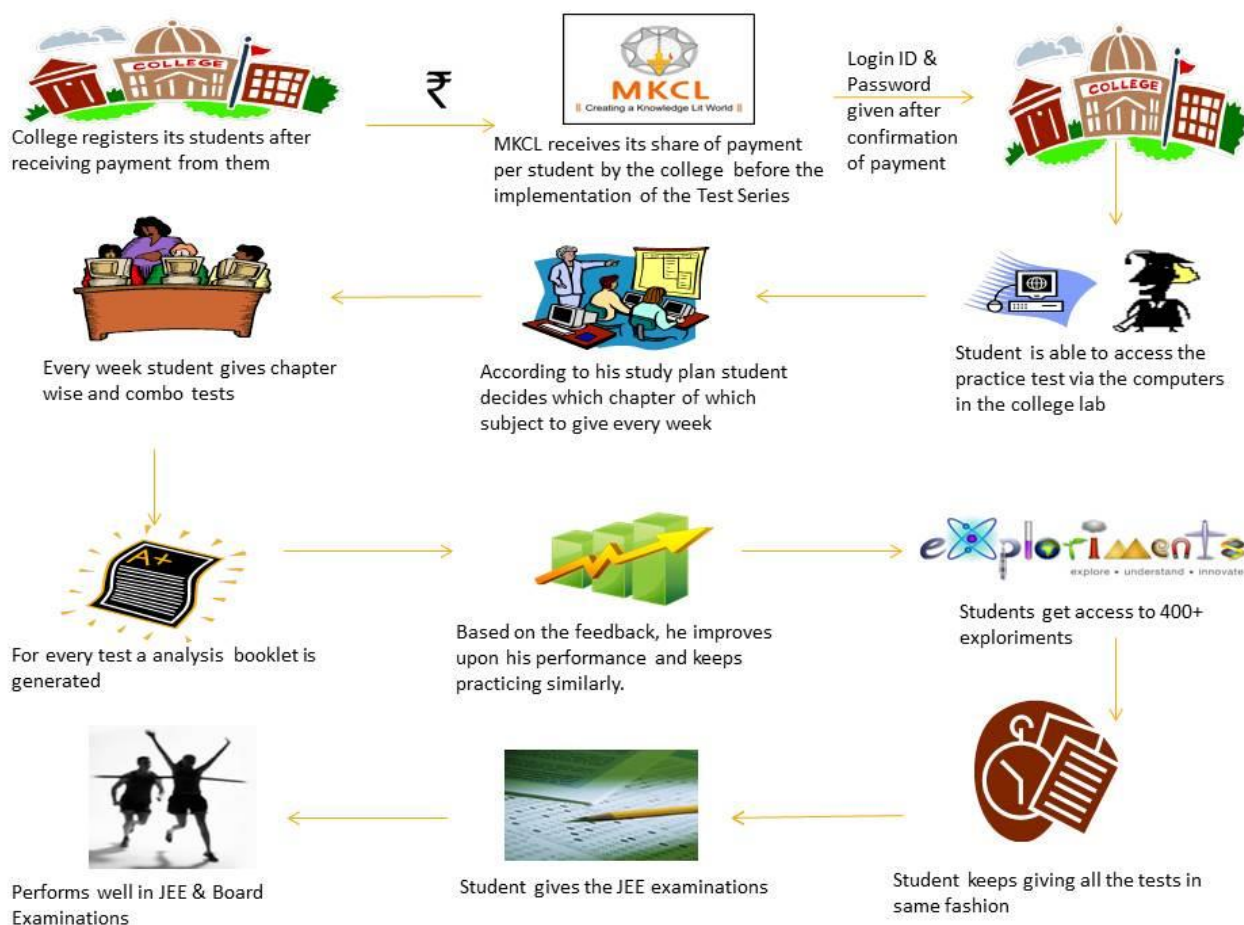
Fees per student per year to be paid at the beginning of the year.

<b>College Share</b>	<b>Rs. 2800</b>
<b>MKCL's Share</b>	<b>Rs. 1200</b>
<b>Total Fees per Learner per Year</b>	<b>Rs. 4000</b>

N.B: Fees are non-refundable and non-transferable.

## 9 Recommended Lab Setup - Annexure 1

## 10 Student Life Cycle:



## **11 Support**

Technical, Academic and Administrative support to the LF's shall be provided through MKCL call center and by email.

## **12 Annexure-1:**

The recommended Lab setup at the lab of the concerned college for conducting this course is given below:

### **1. Server Hardware Configuration**

- 2.0 GHz Processor (with 512Kb L2 Cache) or above
- 2GB RAM
- 80 GB Ultra SCSI-3 and SATA hard disk

### **2. Client Hardware Configuration**

- 1.3 GHz Processor (with 512Kb L2 Cache) or above
- 40 GB IDE and EIDE Hard disk
- 1GB RAM