**Software Project Test Plan**

EkShiksha

Physics Group

**1 Purpose**

The purpose of this document is to outline the test strategy and overall test approach for the EkShiksha Physics project.

**2 Audience**

The audience of this document is the project mentors and the project team.

**3 References**:

This Test plan is directly connected with main Project Plan.

All the features that will be tested are taken from the main project plan.

**4 Features to be tested (Functional Testing)**

The following features of the Web Applications will be tested

4.1 Object Creation

This module is responsible for successfully asking the user for any object code in three js for his experiment and showing him the result in a three js scene before saving it as OBJNAME.js in the master objects file directory.

4.2 Landing Page

This is the main page for the physics group with subtopics as Electricity, Optics and Mechanics. Upon clicking on one of the options a new page will be opened.

4.3 Scene Creation and Animation

This is perhaps the page where all the work will happen. A left Nav Bar will be given with many interactive properties like drag and drop objects into the three js scene. User can resize and reposition the objects and scene background according to the requirement. After making the scene, for mechanics section the user has to type the animation controls for each object. For other, Optics and Electricity the animation is mostly automated and writing animation controls is not required. One more feature that will be given is being able to enter other required js code which is not the animation control code.

## 4 System Testing

System testing tests the system as a whole. Once all the components are integrated, the application as a whole is tested to see that it meets the specified results.

**5 Features Not to Be Tested**:

5.1 This test plan will not cover White box testing, since it is a college project and not all of us still have the proficiency to write the code as per the industrial guidelines, making it almost impossible to get the direct and exact meaning by several looks thus making it extremely time consuming to find bugs.

5.2 Components developed by outside developers: This include all the libraries and APIs that will be used.

**6 Passing Criteria**

Most of the testing will be manual. Therefore the feature will be tested correct according to the test report and the tester.

**7 Test Strategy**

Unit testing and component testing will be performed on the components as they are developed.

As the integration begins to include GUI level functionality, the tests being run will utilize only manual testing.

System will be tested manually by making the test report with different case scenarios and their real time and expected outputs. Later stages of system test will include end-to-end tests to validate use cases.