

Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term Course**

**Year: 2022-23**

**Constitution of Committee**

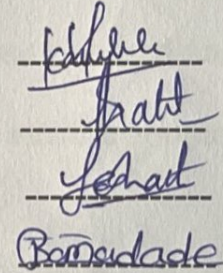
During the academic year 2022-23 The Department of Physics runs the **Short Term Course** named "**Repairing of Electrical Home Appliances**" for B.Sc. III students from 2nd September 2022.

**Chairman:** Ms. N. J. Kamble

**Member:** Dr. Patil G. R.

Mr. Bhagyawant P. K

Ms. Jamadade B. P.

  
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Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department - Physics**

**Short Term Course**

**Maintenance and Repairing of Electrical Home Appliances**

**(STC)(90 lectures)**

**Year: 2022-23**

**Objectives**

- ❖ To make availability of self employability.
- ❖ To develop confidence for doing job.
- ❖ To develop skills required for job.
- ❖ To develop knowledge of home equipments.
- ❖ To give the knowledge about the testing of the electric home appliances like fan, iron, refrigerator, tube light, mixer, heater, etc.
- ❖ To render help to their family in wise testing electric domestics appliances.
- ❖ Students help to their family to purchase of good quality electric appliances.





Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department of Physics**

**Short Term Course Syllabus**

**(STC 90 lecture)**

**2022-23**

**1. How to Handle the Electric Equipments**

Maintenance of electric appliances

Defects in Electric appliances

Precautions to be taken during the use of electric appliances.

**2. How To Test Electric Domestic Equipments**

Ways of testing electric equipments- using test lamp & using continuity tester.

Testing of tube light, testing of choke, testing of starter.

Testing of ceiling fan, condenser testing, testing of windings.

**3. Repair electric home appliances**

Repairing of electric home appliances:-

To repair ordinary electric iron.

To repair automatic electric iron.

To repair the tube light.

To repair the table fan.

**4. Practicals and Journal Writing**



Rayat Shikshan Sanstha's  
**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term Course**

**Year: 2022-23**

**Annual Planning**

| Sr. No. | Month     | Particulars                                                                                                                |
|---------|-----------|----------------------------------------------------------------------------------------------------------------------------|
| 1.      | June      |                                                                                                                            |
| 2.      | July      |                                                                                                                            |
| 3.      | August    | To prepare the constitution of the committee and call for the meeting<br>Distribution of the syllabus to concerned faculty |
| 4.      | September | lectures regarding Short Term Course                                                                                       |
| 5.      | October   | lectures regarding Short Term Course                                                                                       |
| 6.      | November  | Meeting of the committee about the syllabus completion and arrangement of Exam                                             |
| 7.      | December  | Practicals regarding Short Term Course<br>Exam of all students and check the answer sheets                                 |
| 8.      | January   |                                                                                                                            |
| 9.      | February  |                                                                                                                            |
| 10.     | March     |                                                                                                                            |
| 11.     | April     |                                                                                                                            |
| 12.     | May       |                                                                                                                            |



Rayat Shikshan Sanstha's

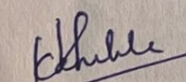
**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

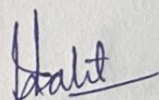
**Short Term Course – Time Table**

**Year: 2022-23**

| Sr. No. | Day      | Time               | Theory/<br>Practical | Name of the Teacher                      |
|---------|----------|--------------------|----------------------|------------------------------------------|
| 1       | Friday   | 01:40pm to 02:30pm | Theory               | Miss. N. J. Kamble                       |
|         |          | 02:30pm to 05:00pm | Practical            | Mr. Bhagyawant P. K<br>Ms. Jamadade B. P |
| 2       | Saturday | 01:40pm to 02:30pm | Theory               | Dr. Patil G. R.                          |
|         |          | 02:30pm to 05:00pm | Practical            | Mr. Bhagywant P. K<br>Miss. N. J. Kamble |

  
Co-ordinator

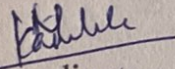


  
Head  
Dept. of Physics



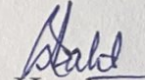
Rayat Shikshan Sanstha's  
**Dr. Patangrao Kadam Mahavidyalaya , Ramanandnagar (Burli)**  
**Dept. of Physics**  
**Short Term Course**  
**"Maintenance and Repairing of Electrical Home Appliances"**  
**List of students for Year : 2022-23**

| Sr. No. | Roll. No. | Name of the student           | Gender |
|---------|-----------|-------------------------------|--------|
| 1       | 1893      | Mr. Galave Anil Manohar       | M      |
| 2       | 1894      | Ms. Jadhav Prajakta Popat     | F      |
| 3       | 1895      | Ms. Jamadade Snehlata Mukund  | F      |
| 4       | 1896      | Mr. Mohite Sahil Anil         | M      |
| 5       | 1897      | Ms. Patil Nikita Avinash      | F      |
| 6       | 1898      | Ms. Pawar Priyanka Yelusa     | F      |
| 7       | 1899      | Mr. Phatak Ashutosh Bhimrao   | M      |
| 8       | 1900      | Mr. Salunkhe Rahul Lalaso     | M      |
| 9       | 1901      | Mr. Shikhare Vishwaraj Sanjay | M      |
| 10      | 1902      | Mr. Shinde Unmesh Ramdas      | M      |

  
Coordinator

(Miss. Kamble N.J)



  
Head

Dept. of Physics



Rayat Shikshan Sanstha's  
Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burla)  
Dept. of Physics  
Academic Year 2022-23  
CLASS B.Sc. III

**Short term course- Student Attendance**

| Sr. No | Roll. No. | Name of the Student           | Date       |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|--------|-----------|-------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
|        |           |                               | 21/09/2022 | 03/09/2022 | 09/09/2022 | 10/09/2022 | 16/09/2022 | 17/09/2022 | 23/09/2022 | 24/09/2022 | 30/09/2022 | 01/10/2022 | 08/10/2022 | 14/10/2022 | 15/10/2022 | 21/10/2022 | 22/10/2022 | 28/10/2022 | 29/10/2022 | 04/11/2022 | 05/11/2022 |  |
| 1      | 1893      | Mr. Galave Anil Manohar       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 2      | 1894      | Ms. Jadhav Prajakta Popat     | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 3      | 1895      | Ms. Jamdade Snehlata Mukund   | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 4      | 1896      | Mr. Mohite Sahil Anil         | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 5      | 1897      | Ms. Patil Nikita Avinash      | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 6      | 1898      | Ms. Pawar Priyanka Yelusa     | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 7      | 1899      | Mr. Phatak Ashutosh Bhimrao   | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 8      | 1900      | Mr. Salunkhe Rahul Lalaso     | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 9      | 1901      | Mr. Shikhare Vishwaraj Sanjay | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |
| 10     | 1902      | Mr. Shinde Unmesh Ramdas      | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       | Atnd       |  |

*(Signature)*  
Co-ordinator

*(Signature)*  
Head





**Rayat Shikshan Sanstha's**  
**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**  
**Department- Physics**  
**Short Term Course**  
**Year: 2021-22**  
**Notice -01**

Date: 11/08/2022

All the faculty and members of the committee are informed that the short term course committee meeting will be held on 13/09/2022 in department at 04:00pm. to discuss following subject.

**Agenda:**

- 1) Discussion on conduction of short term course during current academic year 2022-23 and to get the permission to conduct short term course under Karmveer Vidya Prabodhani named "Repairing of Electrical Home Appliances".
- 2) To discuss on notice to student.
- 3) To discuss about the intake capacity of course and fees.
- 4) Distribution of syllabus.
- 5) To discuss on weekly time table.

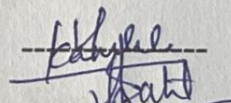
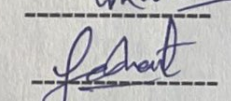
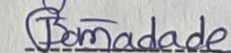
**Chairman:** Ms. N. J. Kamble

**Member:** Dr. Patil G. R.

Mr. Bhagyawant P. K

Ms. Jamadade B. P.

Signature



Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term Course**

**Year: 2022-23**

**Proceeding of Meeting No.-01**

**Date: 13/08/2022**

Meeting of the committee members was held in the department on 11/08/2021 at 04.00pm. The following findings were made.

- 1) Short term course run by the department of Physics Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli), Shivaji University, Kolhapur. So it is necessary to get the permission to conduct the course.
- 2) If the permission is granted then the courses will be launched to B.Sc. III year student.
- 3) These courses will be on the self finance basis and decided to charge a fee of Rs.500/- per student.
- 4) Discussed about the syllabus distribution and the preparation of time table.

Following member were present for the meeting

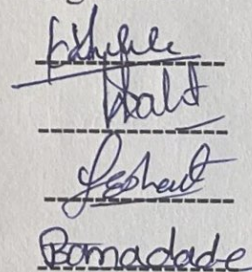
**Chairman:** Ms. N. J. Kamble

**Member:** Dr. Patil G. R.

Mr. Bhagyawant P. K

Ms. Jamadade B. P.

Signature

  
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Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term Course**

**Year: 2022-23**

**Notice -02**

**Date: 25/08/2022**

All the faculty and members of the committee are informed that the short term course committee meeting will be held on 27/08/2022 in department at 04:30pm. to discuss following subject.

**Agenda:**

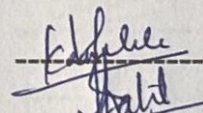
1. To distribute syllabus of Short Term course.
2. To discuss Student intake capacity.
3. To discuss mode of conduction of practical and theory exams as per the guidelines of the Karmveer Vidya Prabodhani.

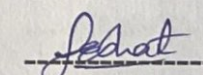
**Chairman:** Ms. N. J. Kamble

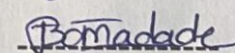
**Member:** Dr. Patil G. R.

Mr. Bhagyawant P. K

Ms. Jamadade B. P.









Rayat Shikshan Sanstha's

Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)

Department- Physics

Short Term Course

Year: 2022-23

Proceeding of Meeting No.-02

Date: 27/08/2022

Meeting of the committee members was held in the department on 27/08/2022 at 04.30pm. The following discussion was made.

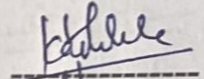
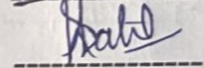
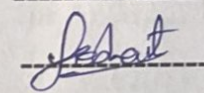
1. To distribute syllabus of Short Term course
2. To discuss Student intake capacity
3. Discussion is made about the conduction of practical and theory exams as per the guidelines of the Karmveer Vidya Prabodhini, Satara.

Following members were present for the meeting.

Chairman: Ms. N. J. Kamble

Member: Dr. Patil G. R.

Mr. Bhagyawant P. K



**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term and Value added courses**

**Year: 2022-23**

**Notice -03**

**Dates: 18/11/2022**

All the faculty and members of the committee are informed that the short term course committee meeting will be held on 18/11/2022 in department at 04:30pm. to discuss following subject.

**Agenda:**

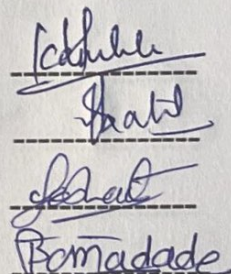
1. Syllabus Completion Review.
2. To discuss mode of conduction of practical and theory exams as per the guidelines of the Karmveer Vidya Prabodhani

**Chairman:** Ms. N. J. Kamble

**Member:** Dr. Patil G. R.

Mr. P. K. Bhagywant

Ms. Jamadade B. P.

  
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Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)

Department- Physics

Short Term Course

Year: 2022-23

Proceeding of Meeting No.-03

Date: 16/11/2022

Meeting of the committee members was held in the department on 18/11/2022 at 04.30pm. The following discussion was made.

1. Syllabus Completion Review.
2. Discussion is made about the conduction of practical and theory exams as per the guidelines of the Karmveer Vidya Prabodhini, Satara.

Following members were present for the meeting.

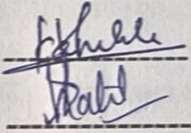
**Chairman:** Ms. N. J. Kamble

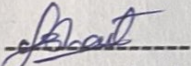
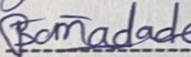
**Member:** Dr. Patil G. R.

Mr. P. K. Bhagywant

Ms. Jamadade B. P.

Signature





Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term course**

**Year: 2022-23**

**Action Report**

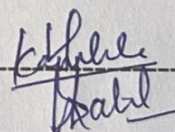
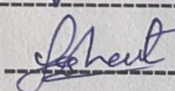
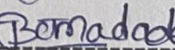
This course is made mandatory for B.Sc. final year students. For the short term course - **Maintenance and Repairing of Electric Domestic Appliances** the committee was established at the beginning of the year 2022-23. The total 10 students and all faculties of department of physics are involved in this course. This short term course has been run during this academic year in offline mode. The technical information was given to the students by expert Mr. Rajendra Kumbhar . The detailed information about the "Maintenance and Repairing of Electric Domestic Appliances" along with its practical demonstrations was given to the admitted students.

**Chairman:** Ms. N. J. Kamble

**Member:** Dr. Patil G. R.

Mr. Bhagyawant P. K

Ms. Jamadade B. P.



Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term Course**

**Year: 2022-23**

**Experiential feelings**

After completion of the short term course- "**Maintenance and Repairs of Electric Domestic Appliances**" and the students admitted to this course got fruitful knowledge about maintenance and repairing of electric appliances. Because of the less information about appliances, people consider their repairing to be a difficult task. The students have been given proper information about this appliances and tricks and techniques to check as well as repairing them.

The handling of the appliances is very easy once we are known to components in the appliance and ways to repair them, therefore it is neccessary to know about the working of appliances. This task was achieved by conducting this short term course.



Rayat Shikshan Sanstha's

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term and Value added courses**

**Year: 2022-23**

**Future plan**

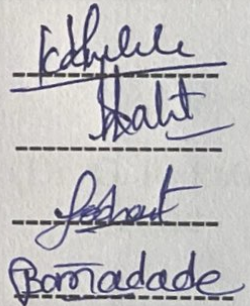
1. In future we will involve more students in short term course and value added courses. We have also decided to invite the person who is expert about the course.
2. The committee is planned to implement project on repairing of domestic appliances.
3. To create the awareness in the society to save energy by using non-conventional energy resources.

**Chairman:** Ms. N. J. Kamble

**Member:** Dr. Patil G. R.

Ms. P. K. Bhagywant

Ms. Jamadade B. P.

  
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**Rayat Shikshan Sanstha's**

**Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)**

**Department- Physics**

**Short Term and Value added courses**

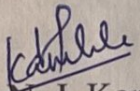
**Year: 2022-23**

**Exam Notice**

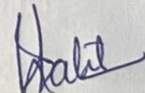
**Date: 02/12/2022**

All B.Sc. III students are hereby informed that practical exam of the **Short Term Course** named **"Repairing of Electrical Home Appliances"** conducted for B.Sc III Students in the academic year will be conducted in 9<sup>th</sup> December 2022 and Theory and oral exam will be conducted on 10<sup>th</sup> December 2022. The attendance is compulsory. The Time table is as given below.

| Sr. No | Name of the Exam | Marks | Day and Date        | Time                |
|--------|------------------|-------|---------------------|---------------------|
| 1.     | Practical Exam   | 50    | Friday 9/12/2022    | 02:00 pm to 5:00 pm |
| 2.     | Theory Exam      | 30    | Saturday 10/12/2022 | 02:00 pm to 3:30 pm |
| 3.     | Oral exam        | 20    | Saturday 10/12/2022 | 04:00 pm to 5:00pm  |

  
(Ms. N. J. Kamble)  
Co-Ordinator



  
(Dr. G. R. Patil)  
Head



Rayat Shikshan Sanstha's  
Dr. Patnagrao Kadam Mahavidyalaya, Ramanandnagar (Burli)

Department of Physics

Value Added Course Theory Examination 2022-23

**"Maintenance and Repairing of Electrical Home Appliances"**

Name of the Student :

Date :

Roll No:

Total Marks : 30

Class :

Time : 11:30 to 12:00 pm

PRN:

Marks obtained :

Instructions : 1. Each question carries two marks

2. All questions are mandatory.

1. Which material can be used upto a temperature of  $130^{\circ}\text{C}$ ?

a. Mica

c. Synthetic resin

b. Cotton

d. All of these

2. What is the purity of electrically graded aluminium?

a. 95 %

c. 99.5 %

b. 98.3 %

d. 97.5 %

3. Which among these is the application of universal motors?

a. Vacuum cleaners

c. Hair dryers

b. Fans

d. Washing machines

4. What is the use of current transformers?

a. Stepping up AC current

c. Stepping down AC current

b. Measuring and protection

d. Both (b) and (c)

5. Rated frequency in India is

a. 60 Hz

c. 55 Hz

b. 50 Hz

d. 53 Hz

6. A multimeter is a device which can measure

a. Resistance

c. Current

b. Voltage

d. All of the above

7. Which of the following refrigerant widely used in domestic refrigeration?

a. Neon

c. Ammonia

b. alcohol

d. Oxygen

8. The heating element in an electric iron is usually made of

a. brass.

c. nichrome.

b. iron.

d. platinum.



9. The capacity an air conditioner is expressed in

- a. watt.
- c. kWh.

- b. HP.
- d. tons.

10. Which of the following heating method is generally used in electric iron?

- a. Direct resistance heating.
- c. Dielectric heating.

- b. Indirect resistance heating.
- d. Arc heating.

11. Which part of washing machine actually perform the cleaning operation of cloth clothes?

- a. Drain.
- c. Agitator.

- b. Tub.
- d. Timer.

12. Which type of magnet is used in an electric bell?

- a. Temporary magnet.
- c. Electromagnet.

- b. Permanent magnet.
- d. Carbon magnet.

13. Which of the following device is responsible for production of the cold liquid in a refrigerator?

- a. Compressor.
- c. Evaporator.

- b. Condenser.
- d. Throttling device.

14. Which of the following gas is mainly used inside a electric bulb?

- a. Carbon dioxide gas.
- c. Inert gas.

- b. Hydrogen gas.
- d. Helium gas

15. Which of the following lamp cannot sustain much voltage fluctuations?

- a. Incandescent lamp.
- c. Mercury vapour lamp.

- b. Sodium vapour lamp.
- d. Fluorescent lamp.

SPACE FOR ROUGH WORK



Rayat Shikshan Sanstha's  
**Dr. Patangrao Kadam Mahavidyalaya , Ramanandnagar (Burli)**

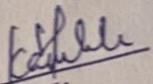
**Dept. of Physics**

**Short Term Course**

**"Maintenance and Repairing of Electrical Home Appliances"**

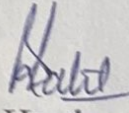
**List of students for Year : 2022-23**

| Sr. No. | Roll. No. | Name of the student          | Marks obtained out of 30 (Theory) | Marks obtained out of 50 (Practical) | Marks obtained out of 20 (Oral) | Total Marks Obtained (Out of 100) |
|---------|-----------|------------------------------|-----------------------------------|--------------------------------------|---------------------------------|-----------------------------------|
| 1       | 1893      | Mr. Galave Anil Manohar      | Ab                                | Ab                                   | Ab                              | Ab                                |
| 2       | 1894      | Ms. Jadhav Prajakta Popat    | 26                                | 42                                   | 17                              | 85                                |
| 3       | 1895      | Ms. Jamadade Snehlata Mukund | 22                                | 43                                   | 15                              | 80                                |
| 4       | 1896      | Mr. Mohite Sahil Anil        | 28                                | 46                                   | 18                              | 92                                |
| 5       | 1897      | Ms. Patil Nikita Avinash     | 30                                | 49                                   | 19                              | 98                                |
| 6       | 1898      | Ms. Pawar Priyanka Yelusa    | 26                                | 45                                   | 17                              | 88                                |
| 7       | 1899      | Mr. Phatak Ashutosh Bhimrao  | 24                                | 47                                   | 18                              | 89                                |
| 8       | 1900      | Mr. Salunkhe Rahul Lalaso    | 28                                | 48                                   | 19                              | 95                                |

  
Coordinator

(Miss. Kamble N.J)



  
Head  
Dept. of Physics





Rayat Shikshan Sanstha's

**DR. PATANGRAO KADAM MAHAVIDYALAYA,  
RAMANANDNAGAR (BURLI)**

**Tal- Palus, Dist-Sangli**

# CERTIFICATE



This is to certify that Mr./Miss./Mrs. Nikita Avinash Patil

of B.Sc.III Physics has successfully completed the **Short Term Course**

**"Maintenance and Repairing of Electrical Home Appliances" in the**  
academic year 2022-23.

  
**Co-ordinator**

  
**Head**



  
**Principal**

Dr. Patangrao Kadam Mahavidyalaya,  
Ramanandnagar (Burla)  
Tal. Palus, Dist. Sangli.