



**Rayat Shikshan Sanstha's,
ARTS, SCIENCE & COMMERCE COLLEGE,
MOKHADA**

Taluka- Mokhada, Dist-Palghar, State- Maharashtra

Pin 401604

Ph. 02529-256628/256706

E-mail- asccmokhada@gmail.com

Website- www.asccmokhada.in

Department of Physics

Certificate course

In

**USPS01ELECTRICAL APPLIANCES
MAINTENANCE & REPAIR**

Under the Scheme of

Skill Based Education under

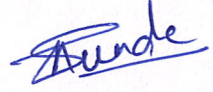
UGC- National Skill Qualification Framework


Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Physics
Certificate Course: "Electrical Appliances; Maintenance and Repair"

Date : 22/11/2021

Student Notice

All the T.Y. B.Sc. Students are informed that the UGC NSQF under sanctioned Certificate course "**Electrical Appliances; Maintenance and Repair**" will be commenced from date 01/12/2021. Therefore all the student have to present for theory lectures and practical's as per given schedule.


Course coordinator


Head / विभागप्रमुख
Department of Physics/भौतिकशास्त्र विभाग



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada
Dist. Palghar

Department of Physics
**Certificate Course- USPS01 Electrical Appliances Maintenance &
Repair**
Board of Studies – 2021-2022

Sr. No.	Designation	Name of the person
1	Chairman	Prof. L. D. Bhor (Principal)
2	Member	Prof. S. K. Vitnor (Head of Physics Department)
3	Member	Prof. Dr. B. B. Bhosale. (Expert)
4	Member	Prof. S. A. Funde (Coordinator, Assistant Professor)
5	Member	Prof. P.K. Patil (Chairman, Short Term Course Committee)

Minutes of the Meeting


Board of Studies meeting of the Short Term Course / Certificate Course in Electrical Appliances: Maintenance and Repair was conducted on 28-11-2021 at 02.30 PM in the Online Mode Zoom App. Above members were present in the meeting.


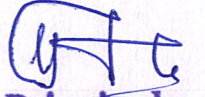
Following Points are discussed in this meeting.

1. Syllabus formation of Electrical Appliances: Maintenance and Repair short term course.
2. Dissemination of work
3. Fee structure
4. Encouragement of Student

Place: ASC College Mokhada

Date: 28/11/2021


Head / विभागप्रमुख
Department of Physics/ भौतिकशास्त्र विभाग


Coordinator

Principal
Arts, Science & Com. College
Mokhada, Dist. Palghar

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar

Department of Physics

➤ **Certificate Course: "Electrical Appliance Maintenance & Repair"**

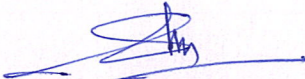
Time Table

2021-22

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2.00 pm to 5.00 pm	--	--	--	--	Theory	Practical

Faculty: 1. Prof. S. K. Vitnor
2. Prof. S. A. Funde
3. Prof. Pratap Khose


Course Coordinator


Head / विभागप्रमुख
Department of Physics/भौतिकशास्त्र विभाग

Certificate Course in Electrical Appliances Maintenance & Repair

1. Introduction:

This course is meant for the candidates who aspire to become a technician to repair different domestic appliances. Repair, maintenance and installation of electronic equipments like microwave oven, iron, electric induction cooker, refrigerator etc.

2. Rationale for introducing the course:

Electrical Appliances Maintenance & Repair prepare candidates not just for a Job but a Career and leads them to become technician. The course will help to give hands-on-expertise in installation, repairing and maintenance of electrical appliances.

3. Availability of relevant industry & Market survey undertaken in order to assess the feasibility:

Nasik is the growing town in the state. The MIDC, IT Industry, and SEZ are developing very fast in and around Nasik city. The Micro, Small, Medium Scale Industries and Public as well as Private Companies are increasing very fast. So, lots of opportunities are available for students.

4. Potential for employment generation:

The course is integrated with theoretical concepts, practical applications. After successfully completed this course, candidate can join any organization as service technician. If somebody wants to work independently, it can give the person with nice opportunities in terms of earning great money.

5. Details about Structure\Pattern of Syllabus:

- **Title of the course** : Certificate Course in Electrical Appliance Maintenance & Repair
- **Course Code** : USPS01
- **Duration of the Course** : one semester
- **Name of the Faculty** : Arts, Science & Commerce
- **Medium of Instructions** : Marathi & English
- **Eligibility for admission** : Candidate should pass the higher secondary board or equivalent with English as one of the subject.

- **Intake Capacity** : 20 Students for the course
- The complete structure will be as follows.

Certificate Course in Electrical Appliance Maintenance & Repair NSQF Level-4

Course	General Education Component (Theory)	Credits	Total Marks
GEC-1	Repair & Maintenance of Electric Iron Geyser & Water Cooler.	04	40
GEC-2	Repair & Maintenance of Electric Fan, Mixer & Refrigerator	04	40
GEC-3	Repair & Maintenance of Electric Microwave Oven, Water Purifier & Induction Cooker	04	40
Skill Development Component (Practical)			
SDC-1	Practical – I (Based on Theory)	12	120
SDC-2	Practical – II (Field Visit)	06	60
Total		30	300

6. Pattern of Examination:

- a) **Evaluation:** Examination will be held at the end of the course.
- b) **Standard of passing:** Minimum 40%.
- c) **Award of Class, Percentage & Degree:** as per UGC-NSQF guidelines.

7. Pattern of Question paper:

Theory Paper 50 Marks

- Q.1 Attempt any one 10 Marks
- Q.2 Attempt any one 10 Marks
- Q.3 Attempt any one 10 Marks
- Q.4 Attempt any one 10 Marks
- Q.5 Attempt any one 10 Marks

Practical Examination 50 Marks

- Q. Detect and repair the fault of given appliance.

8. Infrastructure Available:

- a) ICT enabled Classroom
- b) Availability of laboratory

9. Teaching Faculty:

Sr. No.	Name of the Faculty	Qualification	Experience
1	Prof. S. K. Vitnor	M. Sc.	32 Years
2	Prof. S. A. Funde	M. Sc. SET	3 Years
3	Mr. P. S. Khose	D. E. (Electrical)	23 Years
4	Mr. J. A. Kumbhar	D. E. (Electrical)	23 Years

10. Syllabus:

Theory

GEC-1 Repair & Maintenance of Electric Iron & Geyser

Unit 1. Electric Iron

- 1.1 Working Principle
- 1.2 Construction details of appliances
- 1.3 Types of appliances
- 1.4 Common defects in appliances
- 1.5 Testing method
- 1.6 Repairing procedures
- 1.7 Troubleshooting chart of appliances

Unit 2. Electric Geysers

- 2.1 Description of different types of water heaters like non pressure and pressure types
- 2.2 Installation
- 2.3 Connection diagram
- 2.4 Possible faults geysers
- 2.5 Removals

Unit 3. Electric Water Cooler

- 3.1 Description of different types of water coolers
- 3.2 Installation
- 3.3 Connection diagram
- 3.4 Possible faults geysers
- 3.5 Removals

GEC-2 Repair & Maintenance of Electric Fan & Mixer

Unit 1. Electric Fans

- 1.1 Description of ceiling and table fans
- 1.2 Common defects in fan
- 1.3 Testing methods
- 1.4 Repairing procedure
- 1.5 Troubleshooting chart

Unit 2. Electric Mixer

- 1.1 Description of internal structure
- 1.2 Possible faults
- 1.3 Their remedies

Unit 3. Refrigerator

- 3.1 Description of internal structure
- 3.2 Possible faults
- 3.3 Their remedies

GEC-3 Repair & Maintenance of Electric Microwave Oven

Unit 1. Electric Microwave Oven

- 1.1 Description of microwave oven
- 1.2 Construction of microwave oven
- 1.3 Common defects in microwave oven
- 1.4 Repairing procedures or removals

Unit 2. Electric Water Purifier

- 2.1 Description of Water Purifier
- 2.2 Construction of Water Purifier
- 2.3 Common defects in Water Purifier
- 2.4 Repairing procedures or removals

Unit 3. Induction Cooker

- 3.1 Description of Induction Cooker
- 2.2 Construction of Induction Cooker
- 2.3 Common defects in Induction Cooker
- 2.4 Repairing procedures or removals

Practical's

SDC-1 Practical –I (Based on Theory)

1. Electric iron : testing and repairing
2. Electric Geyser: Connection diagram, faults and repairing
3. Electric Fans: Defects, testing and repairing
4. Electric Mixer: Possible faults and their remedies
5. Electric Microwave Oven : Common defects and repairing
6. Induction Cooker : Common defects and repairing
7. Electric Water Purifier: Common faults and repairing
8. Refrigerator: Possible faults and repairing
9. Electric Water Cooler: Common faults and repairing

SDC-2 Practical – II

Field visit

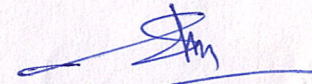
References:

1. Study of Electrical Appliance and Devices- K. B. Bhatia
2. How to Repair Small Appliances?- Jack Darr
3. Electrical Wiring, Estimating and Costing- J. D. Gupta
4. Electrical Motor Repair- I. M. Anwani
5. Maintenance of Domestic Appliances- R. B. Lal
6. House wiring Practice- T. D. Bhise
7. Indian Electricity Rules- Nausheer Bharocha
8. Electrical Engineering- B. L. Theraja
9. Basic Electronics- V. K. Mehta
10. Basic Electricals- B. L. Theraja

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Physics
Certificate Course: "Electrical Appliances Maintenance and Repair"
Student List 2021-22

Sr. No.	Name	Gender	Category
1	Bhoir Pawan Chandrakant	Male	ST
2	Damase Jitendra Rajaram	Male	ST
3	Jadhav Pradip Devidas	Male	ST
4	Khale Sudarshan Shankar	Male	ST
5	Korade Manoj Ranganath	Male	ST
6	Maniyar Shadab Nisar	Male	OBC
7	Nadage Shivram Sonya	Male	ST
8	Pawar Mahendra Parshuram	Male	ST
9	Rathod Avinash Padmasing	Male	VJ/DTA
10	Topale Yogesh Kisan	Male	ST
11	Navale Nilesh Rajaram	Male	ST
12	Padher Nitin Chandrakant	Male	ST
13	Patil Poonam Rajaram	Female	NT-D
14	Pawar Lekhanand Ishwar	Male	NT-C
15	Pawar Nikesh Ashok	Male	ST
16	Pawar Umesh Balu	Male	ST
17	Rajbhar Suraj Surendra	Male	OPEN
18	Randive Devashree Santosh	Female	OBC
19	Shinde Megha Shankar	Female	SC
20	Surum Sagar Kevaji	Male	ST

Gender	Open	OBC	SC	ST	NT/DTA
Male	1	1	0	13	2
Female	0	1	1	0	1


Head / विभागप्रमुख
 Department of Physics / भौतिकशास्त्र विभाग

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar

Department of Physics

Certificate Course: "Electrical Appliances: Maintenance and Repairs"

Theory Exam Attendance-2021-22

11 8 APR 2022

S.N.	Name of the Student	Sign
1.	Bhoir Pawan Chandrakant	
2.	Damase Jitendra Rajaram	
3.	Jadhav Pradip Devidas	
4.	Khale Sudarshan Shankar	
5.	Korade Manoj Ranganath	
6.	Maniyar Shadab Nisar	
7.	Nadage Shivram Sonya	
8.	Pawar Mahendra Parshuram	
9.	Rathod Avinash Padmasing	
10.	Topale Yogesh Kisan	
11.	Navale Nilesh Rajaram	
12.	Padher Nitin Chandrakant	
13.	Patil Poonam Rajaram	
14.	Pawar Lekhanand Ishwar	
15.	Pawar Nikesh Ashok	
16.	Pawar Umesh Balu	
17.	Rajbhar Suraj Surendra	
18.	Randive Devashree Santosh	
19.	Shinde Megha Shankar	
20.	Surum Sagar Kevaji	

Course Co-ordinator

Head / विभागप्रमुख
Department of Physics/भौतिकशास्त्र विभाग

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar

Department of Physics

Certificate Course: "Electrical Appliances: Maintenance and Repairs"

Practical Exam Attendance-2021-22

11 9 APR 2022

S.N.	Name of the Student	Sign
1.	Bhoir Pawan Chandrakant	
2.	Damase Jitendra Rajaram	
3.	Jadhav Pradip Devidas	
4.	Khale Sudarshan Shankar	
5.	Korade Manoj Ranganath	
6.	Maniyar Shadab Nisar	
7.	Nadage Shivram Sonya	
8.	Pawar Mahendra Parshuram	
9.	Rathod Avinash Padmasing	
10.	Topale Yogesh Kisan	
11.	Navale Nilesh Rajaram	
12.	Padher Nitin Chandrakant	
13.	Patil Poonam Rajaram	
14.	Pawar Lekhanand Ishwar	
15.	Pawar Nikesh Ashok	
16.	Pawar Umesh Balu	
17.	Rajbhar Suraj Surendra	
18.	Randive Devashree Santosh	
19.	Shinde Megha Shankar	
20.	Surum Sagar Kevaji	

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Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Physics

Certificate Course: "Electrical Appliances Maintenance and Repair"

Practical Attendance Report 2021-22

Sr.No.	Name of the Student	11/10/21	18/10/21	5/10/22	12/10/22	20/12/22	5/3/22	10/8/22
1.	Bhoir Pawan Chandrakant	Signature	Signature	Signature	Signature	Signature	Signature	Signature
2.	Damase Jitendra Rajaram	Signature	Signature	Signature	Signature	Signature	Signature	Signature
3.	Jadhav Pradip Devidas	Signature	Signature	Signature	Signature	Signature	Signature	Signature
4.	Khale Sudarshan Shankar	Signature	Signature	Signature	Signature	Signature	Signature	Signature
5.	Korade Manoj Ranganath	Signature	Signature	Signature	Signature	Signature	Signature	Signature
6.	Maniyar Shadab Nisar	Signature	Signature	Signature	Signature	Signature	Signature	Signature
7.	Nadage Shivram Sonya	Signature	Signature	Signature	Signature	Signature	Signature	Signature
8.	Pawar Mahendra Parshuram	Signature	Signature	Signature	Signature	Signature	Signature	Signature
9.	Rathod Avinash Padmasing	Signature	Signature	Signature	Signature	Signature	Signature	Signature
10.	Topale Yogesh Kisan	Signature	Signature	Signature	Signature	Signature	Signature	Signature
11.	Navale Nilesch Rajaram	Signature	Signature	Signature	Signature	Signature	Signature	Signature
12.	Padher Nitin Chandrakant	Signature	Signature	Signature	Signature	Signature	Signature	Signature

13.	Patil Poonam Rajaram	Poonam Rajaram	Poonam Rajaram	Poonam Rajaram	Poonam Rajaram	Poonam Rajaram	Poonam Rajaram	Poonam Rajaram	Poonam Rajaram
14.	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar	Pawar Lekhanand Ishwar
15.	Pawar Nikesh Ashok								
16.	Pawar Umesh Balu								
17.	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra	Rajbhar Suraj Surendra
18.	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh	Randive Devashree Santosh
19.	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar	Shinde Megha Shankar
20.	Surum Sagar Kevaji								

Course Coordinator

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Physics

Certificate Course: "Electrical Appliances Maintenance and Repair"
Theory Attendance Report 2021-22

Sr.No.	Name of the Student	28/10/22	21/10/22	11/10/22	18/10/22	25/10/22	4/11/22	11/11/22
1.	Bhoir Pawan Chandrakant	Present	Present	Present	Present	Present	Present	Present
2.	Damase Jitendra Rajaram	Present	Present	Present	Present	Present	Present	Present
3.	Jadhav Pradip Devidas	Present	Present	Present	Present	Present	Present	Present
4.	Khale Sudarshan Shankar	Present	Present	Present	Present	Present	Present	Present
5.	Korade Manoj Ranganath	Present	Present	Present	Present	Present	Present	Present
6.	Maniyar Shadab Nisar	Present	Present	Present	Present	Present	Present	Present
7.	Nadage Shivram Sonya	Present	Present	Present	Present	Present	Present	Present
8.	Pawar Mahendra Parshuram	Present	Present	Present	Present	Present	Present	Present
9.	Rathod Avinash Padmasing	Present	Present	Present	Present	Present	Present	Present
10.	Topale Yogesh Kisan	Present	Present	Present	Present	Present	Present	Present
11.	Navale Nilesh Rajaram	Present	Present	Present	Present	Present	Present	Present
12.	Padher Nitin Chandrakant	Present	Present	Present	Present	Present	Present	Present

13.	Patil Poonam Rajaram	Ramraj	Ramraj	Ramraj	Ramraj	Ramraj	Ramraj	Ramraj	Ramraj	Ramraj
14.	Pawar Lekhanand Ishwar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar
15.	Pawar Nikesh Ashok									
16.	Pawar Umesh Balu									
17.	Rajbhar Suraj Surendra	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar	Shankar
18.	Randive Devashree Santosh	Randive	Randive	Randive	Randive	Randive	Randive	Randive	Randive	Randive
19.	Shinde Megha Shankar	Randive	Randive	Randive	Randive	Randive	Randive	Randive	Randive	Randive
20.	Surum Sagar Kevaji									

Course Coordinator

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Physics

Certificate Course: "Electrical Appliances Maintenance and Repair"
Theory Practical Attendance Report 2021-22

Sr.No.	Name of the Student	25/12/21	10/12/21	17/12/21	24/12/21	31/12/21	7/1/22	21/1/22
1.	Bhoir Pawan Chandrakant	Saitel	Saitel	Saitel	Saitel	Saitel	Saitel	Saitel
2.	Damase Jitendra Rajaram	Jadonse	Jadonse	Jadonse	Jadonse	Jadonse	Jadonse	Jadonse
3.	Jadhav Pradip Devidas	Saitel	Saitel	Saitel	Saitel	Saitel	Saitel	Saitel
4.	Khale Sudarshan Shankar	Saitel	Saitel	Saitel	Saitel	Saitel	Saitel	Saitel
5.	Korade Manoj Ranganath	Korade	Korade	Korade	Korade	Korade	Korade	Korade
6.	Maniyar Shadab Nisar	Maniyar	Maniyar	Maniyar	Maniyar	Maniyar	Maniyar	Maniyar
7.	Nadage Shivram Sonya	Nadage	Nadage	Nadage	Nadage	Nadage	Nadage	Nadage
8.	Pawar Mahendra Parshuram	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar
9.	Rathod Avinash Padmasing	Rathod	Rathod	Rathod	Rathod	Rathod	Rathod	Rathod
10.	Topale Yogesh Kisan	Topale	Topale	Topale	Topale	Topale	Topale	Topale
11.	Navale Nilesh Rajaram							
12.	Padher Nitin Chandrakant							

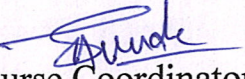
13.	Patil Poonam Rajaram	Poonam Poonam	Poonam Poonam	Poonam Poonam	Poonam Poonam	Poonam Poonam	Poonam Poonam	Poonam Poonam
14.	Pawar Lekhanand Ishwar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar
15.	Pawar Nikesh Ashok	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar	Pawar Pawar
16.	Pawar Umesh Balu							
17.	Rajbhar Suraj Surendra	Rajbhar Rajbhar	Rajbhar Rajbhar	Rajbhar Rajbhar	Rajbhar Rajbhar	Rajbhar Rajbhar	Rajbhar Rajbhar	Rajbhar Rajbhar
18.	Randive Devashree Santosh	Randive Randive	Randive Randive	Randive Randive	Randive Randive	Randive Randive	Randive Randive	Randive Randive
19.	Shinde Megha Shankar	Shinde Shinde	Shinde Shinde	Shinde Shinde	Shinde Shinde	Shinde Shinde	Shinde Shinde	Shinde Shinde
20.	Surum Sagar Kevaji							


Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Physics
2021-2022

Date: 28/03/2022

Notice

All students of T.Y.B.Sc. are hereby informed that, theory examination for the Certificate course “**Electrical Appliances Maintenance and Repair**” will be conducted on **18/04/2022** at **11.00 am**. And Practical Examination will be held on 19/04/2022 at 11.00 am at Department of Physics. Absent students will not be entertained. All students should remain present.


Course Coordinator


Head / विभागप्रमुख
Department of Physics / भौतिकशास्त्र विभाग

University of Mumbai
Rayat Shikshan Sanstha's,

Arts, Science and Commerce College, Mokhada, Dist. Palghar

Department of Physics

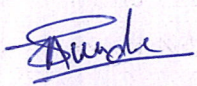
Certificate Course: "Electrical Appliances: Maintenance and Repairs"


Exam Marks

2021-2022

20 APR 2022

Sr. No.	Name of the Student	Theory/50	Practical/50	Total/100
1.	Bhoir Pawan Chandrakant	36	40	76
2.	Damase Jitendra Rajaram	36	40	76
3.	Jadhav Pradip Devidas	36	41	77
4.	Khale Sudarshan Shankar	36	45	81
5.	Korade Manoj Ranganath	36	42	78
6.	Maniyar Shadab Nisar	35	43	78
7.	Nadage Shivram Sonya	38	43	81
8.	Pawar Mahendra Parshuram	37	42	79
9.	Rathod Avinash Padmasing	36	41	77
10.	Topale Yogesh Kisan	35	44	79
11.	Navale Nilesh Rajaram	20	39	59
12.	Padher Nitin Chandrakant	20	40	60
13.	Patil Poonam Rajaram	34	42	76
14.	Pawar Lekhanand Ishwar	20	40	60
15.	Pawar Nikesh Ashok	36	41	77
16.	Pawar Umesh Balu	20	38	58
17.	Rajbhar Suraj Surendra	20	38	58
18.	Randive Devashree Santosh	38	43	81
19.	Shinde Megha Shankar	38	43	81
20.	Surum Sagar Kevaji	20	41	61


Course Coordinator

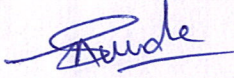

Head / विभागाध्यक्ष
Department of Physics/भौतिकशास्त्र विभाग

Rayat Shikshan Sanstha's,
ASC College, Mokhada, Dist: Palghar
Department of Physics
Certificate Course 2021-22
Electrical Appliances Maintenance and Repair

Date: 20-04-2022

Report

The Department of Physics, ASC College, Mokhada conducted a Certificate course entitled **Electrical Appliances Maintenance and Repair**. Total 20 students of T.Y.B.Sc. were admitted in the course. The duration of course was one semester. The course was conducted satisfactorily by the Dept. of Physics, ASC College, Mokhada, Dist: Palghar.



Course Coordinator



Head / विभागप्रमुख
Department of Physics / भौतिकशास्त्र विभाग



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

095

CERTIFICATE

This is to certify that Shri / Smt *Tapale Yogesh Kisan*

(Class *T.Y.B.Sc. Physics*)

(College) *Arts, Science & Commerce College Palkar*

Dist. Palghar

has successfully comp

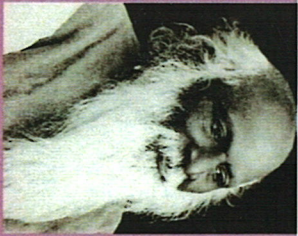
a short term course in *Electrical Appliances : Maintenance & R*

(UGC-NSRF)

Academic year 20*21* 2022 (From To

secured Grade.





Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

097

CERTIFICATE

This is to certify that Shri / Smt Padher Nithin Chandrakant

..... (Class 1st B.Sc. Chemistry)

(College) Arts, Science & Commerce College, Mak

Dist. Palghar has successfully comp

a short term course in Electrical Appliances: Maintenance & R

(UGC-NSRF) Academic year 2021 2022 (From To

secured Grade.





Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

098

CERTIFICATE

This is to certify that Shri / Smt Patil Poonam Rajaram

..... (Class T.Y. B.Sc Chemistry)

(College) Arts, Science & Commerce College, Mokhada

Dist. Palghar has successfully comp

a short term course in Electrical Appliances: Maintenance & Repa

(VGC-NSRF)

Academic year 2021 2022 (From To

secured Grade.





Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

099

CERTIFICATE

This is to certify that Shri / Smt Pawar Lekhand Ishwar

..... (Class T.Y. B.Sc. Chemistry)

(College) Arts, Science & Commerce College Palkhad

Dist. Palghar has successfully completed

a short term course in Electrical Appliances & Maintenance &

(UGC-NSAF) Academic year 2021 2022 (From To

secured Grade.





Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

100

CERTIFICATE

This is to certify that Shri / Smt Pawar Nikesh Ashok

..... (Class T.R. B.sc. Chemistry)

(College) Arts, Science & Commerce College Mok

Dist. Palghar has successfully completed

a short term course in Electrical Appliances: Maintenance & Repairing

(UGC-NSRF) Academic year 2021 2022 (From To

secured Grade.



Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist: Palghar
Department of Zoology
2021-22

Short Term Course on Vermicomposting

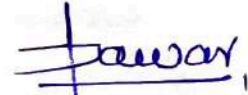
Date: 28/09/2021

Notice

All the students of T.Y.B.Sc. are hereby informed that short term course entitled as “**Vermicomposting**” is starting from 1st October 2021. All should remain present as per the instructions and time table.



Course Coordinator



Head,

Department of Zoology / प्राणीशास्त्र विभाग
Department of Zoology / प्राणीशास्त्र विभाग

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada
Department of Zoology
Short Term Course on: "Vermicomposting"
Course Code-USZS02 **Date: 02/09/2021**
Board of Studies-2021-22

Sr. No.	Designation	Name of Person
1)	Chairman	Hon. Prin. Dr. L. D. Bhor A.S.C.College,Mokhada.
2)	Member	Dr. S.K.Pawar Dept.of Zoology A.S.C.College,Mokhada.
3)	Member	Dr.A.L.Shaikh (Course Coordinator) Dept.of Zoology A.S.C.College,Mokhada.
4)	Member	Dr. J.A. Chavan Depat. of Zoology, Rajaram College, Kolhapur.
5)	Member	Dr. Y.J. Koli R.M. College, Kudal

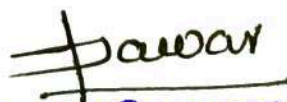
Minutes of Online Meeting

Board of studies meeting for the short term Course on "Vermicomposting " was held on 02 / 09 /2021 at 11.00 AM .

The Following points are discussed in the meeting

- Syllabus formation of **Vermicomposting** certificate course
- Distribution of work
- To run the course without fee for encouragement of Students


Course Co-ordinator


Head / विभागाध्यक्ष
Department of Zoology / प्राणीशास्त्र विभाग
Department of Zoology

Syllabus for Certificate Course
In
Vermicomposting
Under the Scheme of
Skill Based Education under
UGC- National Skill Qualification Framework

Submitted

To

University of Mumbai, Mumbai

By

Rayat Shikshan Sanstha's,
Arts, Science & Commerce College, Mokhada

Taluka- Mokhada, Dist-Palghar, State- Maharashtra

Pin 401604

Ph. 02529-256628/256706

E-mail- asccmokhada@gmail.com

Website- www.asccmokhada.in

Syllabus for Certificate Course in Vermicomposting

1. Introduction:

Vermicomposting truly is nature's great disappearing act. Using worms to convert decomposing food waste into nutrient-rich fertilizer is simple, inexpensive, energy efficient, and a great way to teach students to become life-long recyclers. Vermicomposting technology is known throughout the world. As a process for handling organic residuals, it represents an alternative approach in waste management, in as much as the material is neither land filled nor burned but is considered a resource that may be recycled.

2. Rationale for introducing the course:

Vermicomposting is compatible with sound environmental principles that value conservation of resources and sustainable practices. Vermicomposting is a kin to composting in that similar feedstock-organic residuals -are used. Both systems utilize microbial activity to break down organic matter in the moist, aerobic environment. Vermicomposting is however faster, produces fewer odors and produces a superior product. Vermicomposting in developing countries could prove to be useful in many instances. Where accumulation of food wastes, paper, cardboard, agriculture waste, manures and biosolids is problematic, composting and vermicomposting offer potential to turn waste material into a valuable soil amendment. It is a great idea to switch from conventional chemicals to the organic fertilizer, vermicompost. Vermiculture enables any scale or size of operation.

3. Availability of relevant industry & Market survey undertaken in order to assess the feasibility:

Nasik is the growing town in the state. The MIDC and farming are developing very fast around Nasik city. The demand of organic farming and fertilizer is increasing very fast. So, lots of opportunities are available for students

4. Potential for employment generation:

The course is integrated with theoretical and practical concepts. After successfully completed this course, candidate able to compost in a limited space and describe the decomposing process. The interested students will get the knowledge of composting. Students will get the employment. They can generate employments, they will also turn towards organic farming. It will help to maintain the environment pollution free and if somebody wants to work independently as a consultant, it can give the person with nice opportunities in terms of earning great money.

5. Details about Structure\Pattern of Syllabus:

- **Title of the course** : Certificate Course in Vermicomposting
- **Duration of the Course** : One Semester
- **Name of the Faculty** : Arts, Science & Commerce
- **Compulsory Paper** : Six

- **Optional Paper** : Not Applicable
- **Medium of Instructions** : Marathi & English
- **Eligibility for admission** : Candidate should pass the higher secondary board or equivalent with English as one of the subject.
- **Intake Capacity** : 20 Students for the course
- **Course Level** : level-4
- The complete structure will be as follows.

❖ Certificate Course in Vermicomposting NSQF Level-4			
Course	General Education Component (Theory)	Credits	Total Marks
GEC-1	Vermiculture/ Vermicompost	03	30
GEC-2	Earthworm Biology and Rearing	03	30
GEC-3	Vermicompost Technology (Methods and Products)	03	30
GEC-4	Applied Vermiculture.	03	30
Skill Development Component (Practical)			
SDC-1	Practical – I (Based on Theory)	12	120
SDC-2	Practical – II (Field Work)	06	60
Total		30	300

6. Pattern of Examination:

a) **Evaluation:**

Examination will be held at the end of the course as per UGC-NSQF guidelines.

b) **Standard of passing:** Minimum 40%.

c) **Award of Class, Percentage & Degree:** as per UGC-NSQF guidelines.

d) **External Student:** NA

7. Pattern of Question paper: as per UGC-NSQF guidelines.

8. Infrastructure Available:

a) ICT enabled Classroom.

b) Availability of laboratory.

9. Teaching Faculty:

Sr. No.	Name of the Faculty	Qualification	Experience
1	Dr. S. K. Pawar	M.Sc, PhD	1 Year
2	Dr. A. L. Shaikh	M.Sc. SET, PhD	1 Year

10. Syllabus:

GEC-1 Vermiculture/ Vermicompost

- Introduction to vermiculture, definition, meaning, history, economic important, their value in maintenance of soil structure, role as four r's of recycling reduce, reuse, recycle, restore.
- His role in bio transformation of the residues generated by human activity and production of organic fertilizers. How does nature works. The matter and humus cycle (product, qualities). Ground population, transformation process in organic matter.
- Choosing the right worm. Useful species of earthworms. Local species of earthworms. Exotic species of earthworms. Complementary activities of autoevaluation.

GEC-2 Earthworm Biology and Rearing

- Key to identify the species of earthworms. Biology of *Eisenia fetida*. a) Taxonomy Anatomy, physiology and reproduction of Lumbricidae. b) Vital cycle of *Eisenia fetida*: alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors). Complementary activities of auto evaluation.
- Biology of *Eudrilus eugeniae*. Taxonomy Anatomy, physiology and reproduction of Eudrilidae. Vital cycle of *Eudrilus eugeniae*: alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors).

Complementary activities of auto evaluation.

GEC-3 Vermicompost Technology (Methods and Products)

- Small Scale Earthworm farming for home gardens
- Earthworm compost for home gardens.
- Conventional commercial composting
- Earthworm Composting larger scale.
- Earthworm Farming (Vermiculture), Extraction (harvest), vermicomposting harvest and processing.
- Nutritional Composition of Vermicompost for plants, comparison with other fertilizers. Vermiwash collection, composition & use. Enemies of Earthworms, Sickness and worm's enemies. Frequent problems. How to prevent and fix them.
-Complementary activities of auto evaluation.

GEC-4 Applied Vermiculture.

- The working group experience with *E. fetida* populations comporment with farm industrial residues (frigorific, cow places, feed-lot, aviaries exploitations, and solid urban residues).
- Lineaments to vermicomposting elaboration projects. Considerations about economical aspects of this activity. Research and ratability according to different exploitation orientations (worm's meat production, worm's humus production, or integrated projects). Toxins released by the worms harmful effects)
Complementary activities of auto evaluation.

Practical's:

SDC-1 Practical – I

1. Key to identify different types of earthworms
2. Field trip- Collection of native earthworms & their identification
3. Study of Sytematic position, habits, habitat & External characters of Eisenia Fetida
4. Study of Life stages & development of Eisenia fetida.
5. Study of Life stages & development of Eudrilus eugeniae.
6. Comparison of morphology & life stages of Eisenia fetida & Eudrilus eugeniae.
7. Study of Vermiculture, Vermiwash & Vermicompost equipments, devices.
8. Preparation vermibeds, maintenance of vermicompost & climatic conditions.
9. Harvesting, packaging, transport and storage of Vermicompost and separation of life stages.
10. Study of verms diseases & enemies.
11. Study the effects of vermicompost & vermiwash on any two short duration crop plants.
12. Study the effects of sewage water on development of worms

SDC-2 Practical – II (Field Work)

References:

- i. Bhatt J.V. & S.R. Khambata (1959) "Role of Earthworms in Agriculture" Indian Council of Agricultural Research, New Delhi.
- ii. Dash, M.C., B.K.Senapati, P.C. Mishra (1980) "Vermis and Vermicomposting" Proceedings of the National Seminar on Organic Waste Utilization and Vermicomposting Dec. 5-8, 1984, (Part B), School of Life Sciences, Sambalpur University, Jyoti Vihar, Orissa.
- iii. Edwards, C.A. and J.R. Lofty (1977) "Biology of Earthworms" Chapman and Hall Ltd., London.
- iv. Lee, K.E. (1985) "Earthworms: Their ecology and Relationship with Soils and Land Use" Academic Press, Sydney
- v. Kevin, A and K.E.Lee (1989) " Earthworm for Gardeners and Fisherman" (CSIRO, Australia, Division of Soils)
- vi. Satchel, J.E. (1983) "Earthworm Ecology" Chapman Hall, London.
8. Wallwork, J.A. (1983) "Earthworm Biology" Edward Arnold (Publishers) Ltd. London.


Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Zoology

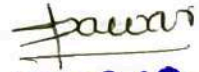
Short term Course (NSQF)- Vermicomposting

Timetable

2021-2022

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Theory						
09.30 to 10.15 am	—	—	—	—	ALS	ALS
10.15 to 11.00 am	—	—	—	—	SKP	SKP
Practical						
02.05 to 05.05	—	—	—	—	—	ALS


Coordinator,
Short term Course


Head / विभागाध्यक्ष
Department of Zoology / प्राणीशास्त्र विभाग

"Education Through Self - Help is Our Motto"
- Karmaveer

Rayat Shikshan Sanstha's



ARTS, SCIENCE & COMMERCE COLLEGE

(Central Govt. Sponsor + 2 Stage Vocational Education Course)

MOKHADA, Tal. : Mokhada, Dist.: Palghar - 401 604

Record of Attendance

Year 2021 - 2022

"Vermicomposting."

Class : T.Y.B.Sc Div. : Zoology

Subject : Short Term Course

Name of the Lecturer : _____

Roll No.	Name of the Student	Category	Backlog																	
				01	02	08	09	15	16	22	23	29	30							
9051/21	Burange Anil Devram			P	P				P	P	P	P								
9052/21	Choudhary Vijay Parshu			P				P		P	P	P								
9053/21	Dangate Jayesh Babu			P				P	P				P	P						
9054/21	Gode Yuvraj Jayram				P			P		P	P	P								
9055/21	Kalingade Vinod Dilip			P	P					P		P	P							
9056/21	Valvi Sachin Bandu			P	P					P		P	P	P						
9057/21	Waghare Devendra Pandu			P	P					P	P	P	P	P						
9059/21	Warghade Vaishali Kashinath				P					P	P	P	P	P						
9058/21	Warghade Sonali Chandrakant				P					P	P	P	P							
9060/21	Mule Bhushan Sanjay				P	P				P	P	P	P							
9001/21	Badade Rupali Laxman			P	P					P	P	P	P	P						
9002/21	Bhoye Jayesh Chandar			P	P					P	P	P	P							
9003/21	Bhoye Tushar Mavanji				P	P				P		P	P							
9004/21	Ghane Kajal Varman				P						P	P	P							
9005/21	Ghatal Ratna Parshuram			P	P	P				P	P	P	P							
9006/21	Korde Jaya Ramdas				P					P	P	P	P							
9007/21	Lahare Pratik Parshuram			P	P	P				P		P	P	P						
9009/21	Lahare Pravina Dattu				P					P	P	P	P							
9008/21	Mahale Sandip Devram			P	P					P		P	P	P						
9010/21	Maule Jayshree Arjun				P	P				P		P	P	P	P					

Roll No.	Name of the Student	Catagary	Backlog	05	06	12	13	19	20	26	27
9051/21	Burange Anil Devram							P			
9052/21	Chaudhary Vijay Parshu							PP			
9053/21	Dangate Jayesh Babu							P			
9054/21	Gode Yuvraj Jayram							PP			
9055/21	Kalingade Vinod Dilip							P			
9056/21	Valvi Sachin Bandu							P			
9057/21	Waghare Devendra Pandu							P			
9059/21	Warghade Vaishali Kashinath							PP			
9058/21	Warghade Sonali Chandrakant							P			
9060/21	Mule Bhushan Sanjay							PP			
9001/21	Badade Rupali Laxman							P			
9002/21	Bhoye Jayesh Chandar							P			
9003/21	Bhoye Tushar Mavanji							P			
9004/21	Ghane Kajal Vaman							PP			
9005/21	Ghotal Ratna Parshuram							P			
9006/21	Korde Jaya Ramdas							P			
9007/21	Lahare Pratik Parshuram							P			
9009/21	Lahare Pravina Dattu							PP			
9008/21	Mahale Sandip Devram							P			
9010/21	Maule Jayshree Arjun							PP			

Roll No.	Name of the Student	Catagary	Backlog	3	4	10	11	17	18	24	25	31
9051/21	Burange Anil Devram			P	P	P	P					
9052/21	Chaudhary Vijay Parshu			P		P	P	P	P			
9053/21	Dangate Jayesh Babu			P	P	P	P		P			
9054/21	Gade Yuvraj Jayram			P	P		P	P				
9055/21	Kalingade Vinod Dilip			P		P	P	P				
9056/21	Valvi Sachin Baradu			P					P			
9057/21	Waghare Devendra Pandu			P	P	P	P	P				
9059/21	Warghade Vaishali Kashinath			P		P	P	P	P			
9058/21	Warghade Sonali Chandrakant			P	P	P						
9060/21	Mule Bhushan Sanjay			P	P				P	P		
9001/21	Badade Rupali Laxman			P		P			P			
9002/21	Bhoye Jayesh Chandar			P	P			P	P			
9003/21	Bhoye Tustar Mavanji			P	P		P		P			
9004/21	Ghane Kajal Vaman			P	P			P	P			
9005/21	Ghatal Ratna Parshuram			P	P		P		P			
9006/21	Korde Jaya Ramdas			P	P	P			P			
9007/21	Lahare Pratik Parshuram			P	P		P	P	P			
9009/21	Lahare Pravina Dattu			P		P	P		P			
9008/21	Mahale Sardip Devram			P	P			P	P			
9010/21	Maule Jayshree Arjun			P	P	P	P	P	P			

Rajal Shikshan Sansthas
Arts, Science & Commerce College, M

February - 2022

Roll No.	Name of the Student	Category	Backlog	4	5	11	12	18	19	25	26
9051/21	Burange Anil Devram			P	P		P				P
9052/21	Chaudhary Vijay Parshu			P	P						P
9053/21	Dangate Jayesh Babu			P	P						P
9054/21	Gode Yuvraj Jayram			P			P				
9055/21	Kalingade Vinod Dilip				P						P
9056/21	Valvi Sachin Bharad			P			P				P
9057/21	Waghare Devendra Pandu				P						P
9059/21	Warghade Vaishali Kashimath			P			P				P
9058/21	Warghade Sonali Chandrakant			P	P						
9060/21	Mule Bhushan Sanjay			P			P				P
9001/21	Badade Rupali Laxman			P	P		P				P
9002/21	Bhoye Jayesh Chandar			P			P				P
9003/21	Bhoye Tushar Mavanji						P				
9004/21	Ghane Kajal Vaman						P				P
9005/21	Ghatal Ratna Parshuram			P							P
9006/21	Korde Jaya Ramdas						P				P
9007/21	Lahare Pratik Parshuram			P	P		P				P
9009/21	Lahare Pravina Dattu			P			P				P
9008/21	Mahale Sandip Devram			P	P		P				P
9010/21	Maule Jayshree Arjun			P	P		P				P

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada Dist. Palghar
Department of Botany
Short Term Course Theory Examination
Vermicomposting

Class: T.Y.B.Sc

Day & Date: Tuesday, 29/03/2022

Time: 11:00 am – 1:00 pm

Total Marks: 50

Que.1. Choose correct alternative.
Marks

10

- i) Vermicompost is used as a biofertilizer because it is composed of _____
a) Nitrogen b) Calcium c) Phosphorous d) All of the above
- ii) The moisture level required for vermicomposting should be between-
a) Below 30% b) 40-60% c) 70-80% d) Above 90%
- iii) Maximum temperature required for vermicomposting should be _____
a) 20°C to 25°C b) 25°C to 30°C c) 30°C to 35°C d) 35°C to 40°C
- iv) Which of the following cannot be used in vermicomposting?
a) Cow dung b) Plant material c) Animal meat d) All of the above
- v) Vermicompost is a/ an _____
a) Inorganic fertilizer b) Organic fertilizer c) Toxic material d) Synthetic fertilizer
- vi) Which one of the following is **NOT** a major reason for choosing earthworms for vermicomposting?
a) Low incubation time b) High digestion rate c) Adaptability d) Low growth rate
- vii) Earthworms are considered as the _____ of soil fertility.

a) Chemical indicator b) Biological indicator c) Physical indicator d) All of the above

viii) Earthworm belongs to the phylum _____.

a) Arthropoda b) Annelida c) Insecta d) Echinodermata

ix) Enemies of earthworms are _____.

a) Ants b) Birds c) Centipedes d) All of the above

x) The cultivation of earthworms, especially in order to use them to convert organic waste into fertilizer is called _____.

a) Sericulture b) Vermiculture c) Apiculture d) None of these

Que.2. Write short note (Any FOUR)

20 Marks

- i) Importance of Vermicompost.
- ii) Vermiwash collection, its composition and use.
- iii) Vermicomposting harvest, extraction and processing.
- iv) Pit method of Vermicomposting
- v) Bed method of Vermicomposting.

Que.3. Answer the following. (Any TWO)

20 Marks

- i) Describe in detail Vermicompost production and add a note on its harvesting and packaging
- ii) Explain morphological features of earthworm. Add a note on its Habit and Habitat.
- iii) Describe in detail Life cycle and development of *Eudrilus eugeniae*

Rayat Shikshan Sanstha's,
Arts, Science and Commerce College, Mokhada, Dist: Palghar
Department of Zoology
2021-22

Short Term Course on Vermicomposting

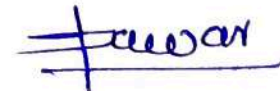
Date: 25/03/2022

Notice

All the students of T.Y.B.Sc. are hereby informed that theory and practical examination of the Short-Term Course on '**Vermicomposting**' will be held as per the time table given below. All should remain present.

Sr. No.	Subject	Date	Time
1	Theory Examination	29/03/2022	11:00 am – 1:00 pm
2	Practical Examination	31/03/2022	11:00 am – onwards


Course Coordinator


Head,

Department of Zoology
Head / विभागाध्यक्ष
Department of Zoology / प्राणीशास्त्र विभाग

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar
Department of Zoology

Short Term Course on Vermicomposting

Class: T.Y.B.Sc

2021-22

Mark Sheet

Roll No.	Name of the student	Theory (50)	Practical (50)	Total (100)	Grade
9051	Burange Anil Devram	39	41	80	O
9052	Chaudhary Vijay Parshu	43	44	87	O
9053	Dangate Jayesh Babu	38	39	77	A
9054	Gode Yuvraj Jayram	43	43	86	O
9055	Kalingade Vinod Dilip	44	43	87	O
9056	Valvi Sachin Bandu	40	40	80	O
9057	Waghare Devendra Pandu	45	45	90	O
9059	Warghade Vaishali Kashinath	43	44	87	O
9058	Warghade Sonali Chandrakant	39	40	79	A
9060	Mule Bhushan Sanjay	38	39	77	A
9001	Badade Rupali Laxman	43	42	85	O
9002	Bhoye Jayesh Chandar	44	45	89	O
9003	Bhoye Tushar Mavanji	40	40	80	O
9004	Ghane Kajal Vaman	40	42	82	O
9005	Ghatal Ratna Parshuram	46	43	89	O
9006	Korde Jaya Ramdas	48	48	96	O
9007	Lahare Pratik Parshuram	42	46	88	O
9008	Lahare Pravina Dattu	40	42	82	O
9009	Mahale Sandip Devram	42	44	86	O
9010	Maule Jayshree Arjun	43	44	87	O


Course Coordinator


Head,
Department of Zoology / प्राणीशास्त्र विभाग

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Zoology

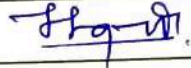
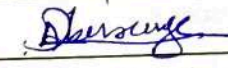
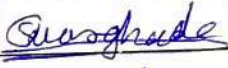
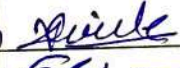
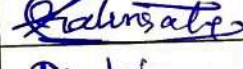
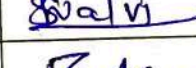
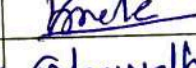
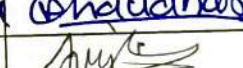
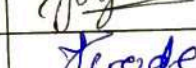
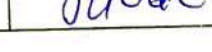
T.Y.B.Sc.

2021-2022

A Short Term Course on Vermicomposting

Practical - Attendance

Date: 31/03/22

Sr.	Roll No.	Name of the Student	Signature
1.	9057	Daghare Devendra pandu	
2.	9051	Burange Anil Devsum	
3.	9058	Warghade Sonali Chandrakant	
4.	9059	Warghade Vaishali Kashinada	
5.	9055	Kalingade vined dilip	
6.	9056	Valvi Sachin bandu	
7.	9060	mule Bhushan sanjay	
8.	9052	chaudhari vijay parsha	
9.	9053	Dangate Jayesh Babu	
10.	9054	Gode farsaj Jaysan	



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada, Dist. Palghar
Department of Zoology

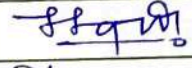
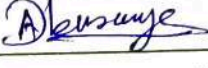
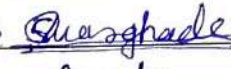
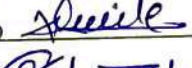
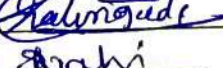
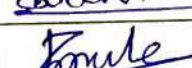
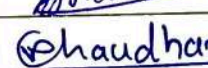
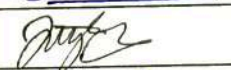
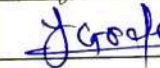

T.Y.B.Sc.

2021-2022

A Short Term Course on Vermicomposting

Theory - Attendance

Date: 29/03/22

Sr.	Roll No.	Name of the Student	Signature
1.	9057	Waghare Devendra pandu	
2.	9051	Burange Anil Devram	
3.	9058	Warghade Simali Chandrakant	
4.	9059	Warghade. vaishali kashirath	
5.	9055	Kalingade vined dilip	
6.	9056	Valvi Sachin Bandu	
7.	9060	Mule Bhushan sanjay	
8.	9052	chaudhari vijay paashu	
9.	9053	Dangate Jayesh Babu	
10.	9054	Yusraj Jaysam Gode	



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar

Department of Zoology

Short Term Course on Vermicomposting

Theory Examination

Attendance Sheet

Roll No.	Name of the student	Signature
9001	Badade Rupali Laxman	<u>BBur</u>
9002	Bhoye Jayesh Chandar	<u>J.C Bhoye</u>
9003	Bhoye Tushar Mavanji	<u>T Bhoye</u>
9004	Ghane Kajal Vaman	<u>Kajal Ghane</u>
9005	Ghatal Ratna Parshuram	<u>R.P. Ghatal</u>
9006	Korde Jaya Ramdas	<u>Jule</u>
9007	Lahare Pratik Parshuram	<u>Pahare</u>
9009	Lahare Pravina Dattu	<u>Pravina</u>
9008	Mahale Sandip Devram	<u>Sandip Mahale</u>
9010	Maule Jayshree Arjun	<u>Jayshree Maule</u>

Arjun

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar

Department of Zoology

Short Term Course on Vermicomposting

Practical Examination

Attendance Sheet

Roll No.	Name of the student	Signature
9001	Badade Rupali Laxman	R.L.B.
9002	Bhoye Jayesh Chandar	J.C. Bhoye
9003	Bhoye Tushar Mavanji	T. Bhoye
9004	Ghane Kajal Vaman	K. Ghane
9005	Ghatal Ratna Parshuram	R.P. Ghatal
9006	Korde Jaya Ramdas	J. Korde
9007	Lahare Pratik Parshuram	P. Lahare
9009	Lahare Pravina Dattu	P. Lahare
9008	Mahale Sandip Devram	S. Mahale
9010	Maule Jayshree Arjun	M. Maule

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Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada, Dist. Palghar

Department of Zoology

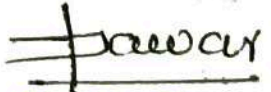
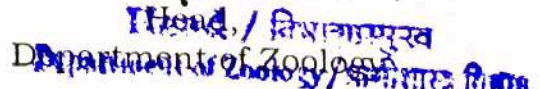
Short Term Course on Vermicomposting

Report

Date: 04/04/2022

To inculcate applied knowledge of the subject a short term course entitled Vermicomposting was conducted by the department of Zoology. Total 20 students of T.Y.B.Sc. (Botany and Zoology) were admitted for this course. The syllabus was completed within stipulated time as per the timetable. All 20 students appeared for the exam and have successfully completed the course.


Course Coordinator


Head / 
Department of Zoology

Course Coordinator



240

Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Shri / Smt. Badade Rupali Laxman

(Class T.Y. B.Sc Botany) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghar has successfully completed

a short term course in Vermi-composting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.



ASTS

Art's Science and Commerce College
Mokhada, Dist. Palghar

R.D. Shinde

Executive Director
Karmaveer Vidyaprabodhini

Shree

Chairman
Karmaveer Vidyaprabodhini



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

271

This is to certify that Shri / Smt _____

_____ (Class _____) of _____

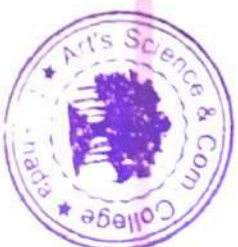
(College) _____

_____ has successfully completed

a short term course in _____

Academic year 20 _____ 20 _____ (From _____ To _____) and

secured _____ Grade.



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PRINCIPAL

Arts Science and Commerce College
 Mokhada, Dist. Palghar

Handwritten signature

Executive Director

Karmaveer Vidyaprabodhini

Handwritten signature

Chairman

Karmaveer Vidyaprabodhini



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

243

CERTIFICATE

This is to certify that Shri / Smt Mule Bhushan Ganjay

(Class T.Y.B.Sc Zoology) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Paighar has successfully completed

a short term course in Yermicomposting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured A Grade.



AKS

PRINCIPAL
Arts Science and Commerce College
Mokhada, Dist. Paighar

K. S. Shivadas

Executive Director
Karmaveer Vidya Prabodhini

AKS

Chairman
Karmaveer Vidya Prabodhini



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Shri / Smt Yalvi Gachin Bandu

(Class T.Y.B.Sc Zoology) of

(College) Arts, Science and Commerce college Mokhada,

Dist. Paigdar

has successfully completed

a short term course in Wermi:composting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.



RTG

PRINCIPAL
Arts Science and Commerce College
Mokhada Dist Paigdar

R.D. Srinivasan

Executive Director
Karmaveer Vidya Prabodhini



Shree

Chairman
Karmaveer Vidya Prabodhini



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

259

CERTIFICATE

This is to certify that Shri / Smt Bhoje Jayesh Chandar

(Class T.Y. B.Sc Botany) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghar has successfully completed

a short term course in Vermicomposting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.



PRINCIPAL

Arts Science and Commerce College
Mokhada Dist Palghar

Executive Director

Karmaveer Vidyaprabodhini

Chairman

Karmaveer Vidyaprabodhi



251

Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Shri / Smt Bhoye Tushar Mavanji

(Class T.Y.B.Sc Botany) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Paighar has successfully completed

a short term course in Yermicomposting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.




PRINCIPAL

Arts Science and Commerce College
Mokhada, Dist. Palgnar



Executive Director
Karmaveer Vidyaprabodhini





Chairman
Karmaveer Vidyaprabodhi



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that **Shri / Smt** Ghane Kajal Yaman

(Class T.Y.B.Sc Botany) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghar

has successfully completed

a short term course in Vermin:composting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.

PRINCIPAL

Arts Science and Commerce College
Mokhada Dist Palghar

Executive Director

Karmaveer Vidyaprabodhini



Chairman

Karmaveer Vidyaprabodhini



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

253

CERTIFICATE

This is to certify that Shri / Smt

Ghatal Ratna Passhuram

(Class *T.Y.B.sc Botany*) of

(College) *Arts, Science and Commerce College*

Mokhada, Dist. Palghar

has successfully completed

a short term course in

Vermicomposting

Academic year 2021

2022

(From *01/10/2021*

To *31/03/2022*) and

secured

Grade.

Art's Science & Commerce College
Mokhada Dist Palghar

Principal

Karmaveer Vidya Prabodhini
Executive Director

Karmaveer Vidya Prabodhini
Chairman





210

Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Shri / Smt Chaudhary Vijay Parshu

..... (Class T.Y.B.Sc. Zoology) of

(College) Arts, science and commerce College

Mokhada, Dist. Palghar has successfully completed

a short term course in Vermicomposting

Academic year 2021 - 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.



K. S. Shinde

Executive Director
Karmaveer Vidyaprabodhini

S. D.

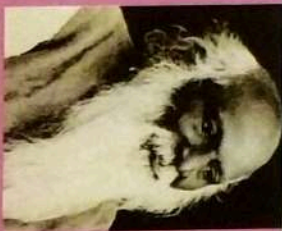
Chairman
Karmaveer Vidyaprabodhi

Arts

PRINCIPAL

Arts Science and Commerce College
Mokhada, Dist Palghar





Rayat Shikshan Sanstha, Satara

Karmaveer Vidya Prabodhini

241

CERTIFICATE

This is to certify that Shri / Smt Dangate Jayesh Babu

..... (Class T.Y.B.Sc. Zoology) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghar has successfully completed

a short term course in Vermicomposting

Academic year 2021 - 2022 (From 01/10/2021 To 31/03/2022) and

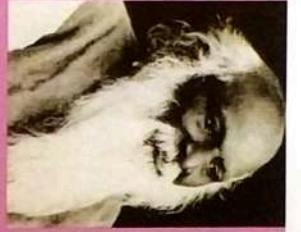
secured A Grade.

PRINCIPAL
Arts Science and Commerce College
Mokhada, Dist. Palghar

Executive Director
Karmaveer Vidyaprabodhini



Chairman
Karmaveer Vidyaprabodhi



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

242

CERTIFICATE

This is to certify that Shri / Smt Gode Yuvraj Jayaram
..... (Class T.Y. B.Sc. Zoology) of
(College) Arts, science and commerce college
Mokhada, Dist. Palghar has successfully completed
a short term course in Vermicomposting
Academic year 2021 - 2022 (From 01/10/2021 To 31/03/2022) and
secured 0 Grade.



PRINCIPAL
Arts Science and Commerce College
Mokhada, Dist. Palghar

Executive Director
Karmaveer Vidyaprabodhini



Chairman
Karmaveer Vidyaprabodhi



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

245

CERTIFICATE

This is to certify that Shri / Smt Waghare Devendra Panda

(Class T.Y.B.Sc Zoology) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghar has successfully completed

a short term course in Yermi composting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.

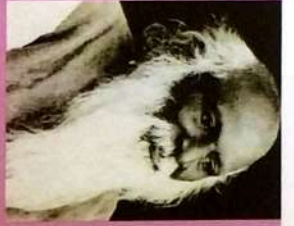


R. S. Shinde
Executive Director
Karmaveer Vidyaprabodhini

[Signature]
Chairman
Karmaveer Vidyaprabodhi

Principal
Arts Science and Commerce College
Mokhada, Dist. Palghar

[Signature]
Principal



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

239

CERTIFICATE

This is to certify that Shri / Smt Burange Anil Devram

..... (Class T.Y. B.Sc. Zoology) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghat has successfully completed

a short term course in Vermicomposting

Academic year 20 21 - 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.



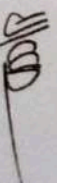

PRINCIPAL

Arts Science and Commerce College
Mokhada, Dist. Palghat



Executive Director
Karmaveer Vidya Prabodhini





Chairman
Karmaveer Vidya Prabodhini



247

Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Sri / Smt Marghade Gonal; Chandrakant

..... (Class T.Y.B.Sc Zoology) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghat has successfully completed

a short term course in Yermi Compositing

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured A Grade.

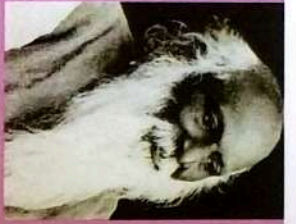


[Signature]
Executive Director
Karmaveer Vidyaprabodhini

[Signature]
Chairman
Karmaveer Vidyaprabodhi

[Signature]
PRINCIPAL
Arts Science and Commerce College
Mokhada. Dist. Palghar





246

Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Shri / Smt Lataghade Vaishali Kashinath

(Class T.Y.B.Sc Zoology) of

(College) Arts, Science and Commerce College

Mokhada, Dist. Palghar has successfully completed

a short term course in Vermicomposting

Academic year 2021 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.

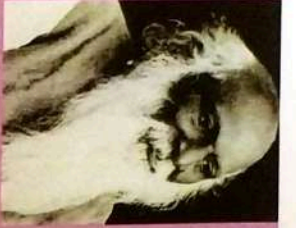


K.S. Shivadas
Executive Director
Karmaveer Vidya Prabodhini

[Signature]
Chairman
Karmaveer Vidya Prabodhini

Arts
Science and Commerce College
Mokhada, Dist. Palghar

[Signature]
Principal



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

243

CERTIFICATE

This is to certify that Shri / Smt Kalingade Vinod Dilip

(Class T.Y.B.Sc. Zoology) of

(College) Arts, science and commerce College

Mokhada, Dist Palghar has successfully completed

a short term course in Vermicomposting

Academic year 2021 - 2022 (From 01/10/2021 To 31/03/2022) and

secured 0 Grade.

PRINCIPAL
Arts Science and Commerce College
Mokhada Dist Palghar

Executive Director
Karmaveer Vidya Prabodhini




Chairman
Karmaveer Vidya Prabodhini

Rayat Shikshan Sanstha's
Arts, Science and Commerce College Mokhada, Dist.
Palghar
Department of Mathematics
Short term Course Solar Photovoltaic System
Notice

Date: 06/12/2021

All Students of T.Y.B.Sc Classes are hereby informed the department of Mathematics organizes a short term course of Certificate course in **Solar Photovoltaic System**. So, interested students contact to Pro. P. K. Patil till 15th December 2021 for the admission for these courses.




Course co-ordinator
Department of Mathematics



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada
Dist. Palghar 401 604

Department of Mathematics
Short Term Course- USMS01 Certificate Course in
"Solar Photovoltaic System" by UGC-NSQF
Board of Studies – 2021-2022

Sr. No.	Designation	Name of the person
1	Chairman	Dr. L. D. Bhor (Principal)
2	Member	Prof. P. K. Patil (Head of Mathematics Department)
3	Member	Prof. V. B. Jagzap (Expert)
4	Member	Prof. P. K. Patil (Coordinator, Solar Photovoltaic System)
5	Member	Prof. P. K. Patil (Chairman, Short Term Course Committee)

Minutes of the Meeting

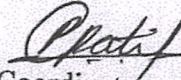
Board of Studies meeting of the Short Term Course / Certificate Course in Applied Mathematics & Statistical Techniques was conducted on 01-12-2021 at 02.30 pm in the Online Mode via Zoom App. Above members were present in the meeting.

Following Points are discussed in this meeting.

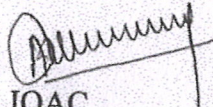
1. Syllabus formation of Solar Photovoltaic System
2. Dissemination of work
3. Fee structure
4. Encouragement of Student

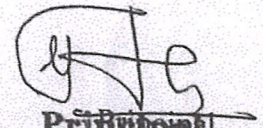
Place: ASC College, Mokhada

Date: 01/12/2021


Coordinator

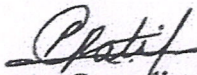



IQAC
Coordinator

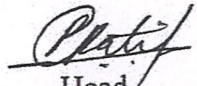

Principal
Arts, Science & Com. College
Mokhada, Dist. Palghar

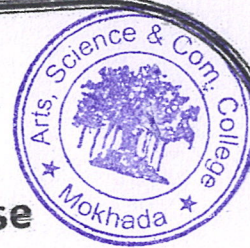
Rayat shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist-Palghar 401 604
Department of Mathematics
Short Term Course (NSQF) Solar Photovoltaic System
Timetable 2021-22

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10:00 am - 11:00 am	Theory	Theory	-	-	-	-
2:00 pm - 04:00 pm	-	-	-	-	Practical	Practical


Course Co-ordinator




Head
Department of Mathematics



Syllabus for Certificate course

In

Solar Photovoltaic Systems

Under the Scheme of

Skill Based Education under

UGC- National Skill Qualification Framework

Submitted

To

University of Mumbai, Mumbai

By

Rayat Shikshan Sanstha's,

Arts, Science & Commerce College, Mokhada

Taluka- Mokhada, Dist-Palghar, State- Maharashtra

Pin 401604

Ph. 02529-256628/256706

E-mail- asccmokhada@gmail.com

Website- www.asccmokhada.in

Syllabus for Certificate Course in Solar Photovoltaic Systems



1. Introduction:

Solar PV systems are used for electricity generation by using solar panels and sunlight. A photovoltaic system is composed of one or more solar panels combined with an inverter and other electrical and mechanical hardware that use energy from the sun to generate electricity. PV systems can vary greatly in size from small roof top or portable systems to massive utility scale generation plants. Although PV systems can operate by themselves as OFF-grid PV systems.

2. Rationale for introducing the course:

Solar Photovoltaic Systems course prepares candidates not just for a Job but a Career and leads them to become Industry oriented professional and entrepreneur. The course will help to give hands-on-expertise in the area of Solar PV OFF-grid systems and Solar PV ON-grid systems. Candidates are ready to opt for multiple roles in the field of solar energy.

3. Availability of relevant industry & Market survey undertaken in order to assess the feasibility:

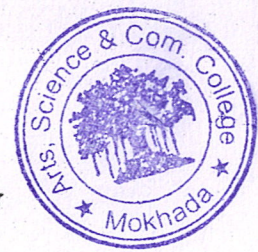
Nasik is the growing town in the state. The MIDC, IT Industry, and SEZ are developing very fast in and around Nasik city. The Micro, Small, Medium Scale Industries and Public as well as Private Companies are increasing very fast hence the demand for electricity is increasing day by day. So, lots of opportunities are available for students for developing their own business in the area of power sector.

4. Potential for employment generation:

The Course is integrated with theoretical concepts, practical applications. After successfully completed this course, candidate can join any organization from solar energy sector. If somebody wants to work independently as a solar PV installer, it can give the person with nice opportunities in terms of earning great money.

5. Details about Structure/Pattern of Syllabus:

- Title of the course : Certificate Course in Solar Photovoltaic Systems
- Duration of the Course : One Semester
- Name of the Faculty : Arts, Science & Commerce
- Compulsory Paper : Five
- Optional Paper : Not Applicable



- **Medium of Instructions** : Marathi & English
- **Eligibility for admission** : Candidate should pass the higher secondary board or equivalent with English as one of the subject.
- **Intake Capacity** : 20 Students for the course
- **Course Level** : level-4
- The complete structure will be as follows.

❖ Certificate Course in Solar Photovoltaic Systems NSQF Level-4			
Course	General Education Component (Theory)	Credits	Total Marks
GEC-1	Components of Photovoltaic Systems	04	40
GEC-2	Solar Photovoltaic Systems: Design & Integration	04	40
GEC-3	Solar Photovoltaic Systems: Installation & Maintenance	04	40
Skill Development Component (Practical)			
SDC-1	Practical – I (Based on Theory)	12	120
SDC-2	Practical – II (Field Work)	06	60
Total		30	300

6. Pattern of Examination:

a) **Evaluation:**

Examination will be held at the end of the course as per UGC-NSQF guidelines.

b) **Standard of passing:** Minimum 40%.

c) **Award of Class, Percentage & Degree:** as per UGC-NSQF guidelines.

d) **External Student:** NA

7. Pattern of Question paper: as per UGC-NSQF guidelines.

8. Infrastructure Available:

a) ICT enabled Classroom.

b) Availability of laboratory.

9. Teaching Faculty:

Sr. No.	Name of the Faculty	Qualification	Experience
1	Prof. S. K. Vitnor	M.Sc	30 Years
2	Prof. S. A. Funde	M.Sc. SET	1 Year

10. Syllabus:



Course Code: GEC-1

Course Title: Components of Photovoltaic Systems

Unit I: Components of Grid – connected Solar PV Systems

Solar Modules , Charge Controllers, Inverters Batteries ,Racking ,Solar PV array , Array Combiner box, DC cabling , DC Distribution Box, Grid – Connected Inverter, AC Cabling , AC distribution Box .

Unit II: Components of Solar Panel

PVmodule,Side- of Pole Mount for solar panel , Midnight PV 3 combiner Box,C40 Charge controller, Deep cycle battery, Solectrica Inverter on a prewired Power panel .

Course Code: GEC-2

Course Title: Solar Photovoltaic Systems: Design & Integration

Unit I: Solar PV systems Design and integration

Types of Solar PV Systems, Standalone SPV system, Grid connected SPV systems, hybrid SPV system, Design methodology for SPV systems, Approximate Design of standalone system,Solar PV System design chart , Look up table for PV system design.

Unit II: Design of solar cell

Upper limits of Cell Parameters, Losses in solar cells, Solar cell Design, Design of Isc, Design of Voc, Design of FF, Analytical techniques.

Unit III: PV systems design and its applications

Introduction of solar PV systems, Standalone PV systems configurations, Design methodology of PV systems ,Wire Sizing in PV systems , Precise sizing of PV systems, Hybrid PV systems, Grid connected PV systems ,simple Payback Period, Lifecycle costing.

Course Code: GEC-3

Course Title: Solar Photovoltaic Systems: Installation & Maintenance

Unit I: Installation, Troubleshooting and safety

Summary of PV system components, Summary of types of solar PV systems,Installation and troubleshooting of standalone solar PV systems, safety in Plants, Solar PV plant installation Check list.

Unit II: Maintenance of PV systems

Course Code: SDC-1

Course Title: Practical Based on Theory

- i. Testing of Solar PV Panel
- ii. Study of Digital Multimeter
- iii. Study of Solar Panels connected in series and parallel
- iv. To Show the effect of variation in tilt angle on PV module power
- v. Study of Solar Cell characteristics
- vi. To vary Intensity & measures current and voltage



- vii. To demonstrate the I-V and P-V characteristics of PV module with varying radiation and temperature level
- viii. To demonstrate the I-V and P-V characteristics of series and parallel combination of PV modules
- ix. To demonstrate the effect of shading on module output power
 - x. Workout power flow calculations of standalone PV system of AC load with battery.
 - xi. Workout power flow calculations of standalone PV system of DC load with battery.
- xii. Find the MPP manually by varying the resistive load across the PV panel.

Course Code: SDC-2

Course Title: Field Work

References:

1. Solar Energy Utilisation: G. D. Rai, Khanna Publishers
2. Solar Energy: fundamentals and applications, Garg & Prakash, H. P. Garg, Tata McGraw Hill Education, 2000.
3. Solar Photovoltaics: Fundamentals, Technologies and Applications, Solanki Chetan Singh, Eastern economy Edition.
4. Sustainable Energy: Richard A Dunlap, CENGAGE Learning.
5. Sustainable Design and Development: Stribig, Ogundipe, Papadakis, CENGAGE Learning




Rayat shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist-Palghar 401 604

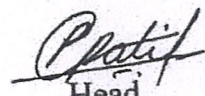
Department of Mathematics

Short Term Course (NSQF) "Solar Photovoltaic System"

Student List 2021-22

Sr. No.	Student Name	Gender
1.	Bagul Akash Keshev	Male
2.	Bhavari Kiran Pandurang	Male
3.	Chaudhari Tushar Narayan	Male
4.	Dodhad Kriti Bhavesh	Female
5.	Dodhad Ramesh Ananta	Male
6.	Harpale Aditya Rajesh	Male
7.	Kharpade Sapana Lahu	Female
8.	Padir Jayesh Narendra	Male
9.	Pawar Devyani Madhukar	Female
10.	Aher Ganesh Shivram	Male
11.	Chothe Trupti Rajendra	Female
12.	Gaikwad Dipak Govind	Male
13.	Gode Rajesh Sampat	Male
14.	Hilim Ravindra Sanjay	Male
15.	Kurva Sanjay Bhau	Male
16.	Mahale Sunil Popat	Male


Course Co-ordinator


Head
Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604

Short Term Course 2021-22

Certificate course in "Solar Photovoltaic System" under UGC-NSRF
Student List



Class : T.Y.B.Sc.

Sr. No.	Roll Number	Name of the Student	Signature
1	9032/21	Bagul Akash Keshev	
2	9033/21	Bhavari Kiran Pandurang	
3	9034/21	Chaudhari Tushar Narayan	
4	9035/21	Dodhad Kriti Bhavesh	
5	9036/21	Dodhad Ramesh Ananta	
6	9037/21	Harpale Aditya Rajesh	
7	9038/21	Kharpade Sapna Lahu	-
8	9039/21	Padir Jayesh Narendra	
9	9040/21	Pawar Devyani Madhukar	
10	9015/21	Aher Ganesh Shivram	
11	9016/21	Chothe Trupti Rajendra	
12	9017/21	Gaikwad Dipak Govind	
13	9018/21	Gode Rajesh Sampat	
14	9019/21	Hilim Ravindra Sanjay	
15	9020/21	Kurva Sanjay Bhau	
16	9021/21	Mahale Sunil Popat	

Co-ordinator

Head
Department of Mathematics

Principal
Arts, Science & Com. College
Mokhada, Dist. Palghar

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604

Short Term Course 2021-22

Certificate course in "Solar Photovoltaic System" under UGC-NSQF
Attendance (Practical Exam)



Class : T.Y.B.Sc.

Date: _____

Sr. No.	Roll Number	Name of the Student	Signature
1	9032/21	Bagul Akash Keshev	
2	9033/21	Bhavari Kiran Pandurang	
3	9034/21	Chaudhari Tushar Narayan	
4	9035/21	Dodhad Kriti Bhavesh	
5	9036/21	Dodhad Ramesh Ananta	
6	9037/21	Harpale Aditya Rajesh	
7	9038/21	Kharpade Sapna Lahu	
8	9039/21	Padir Jayesh Narendra	
9	9040/21	Pawar Devyani Madhukar	
10	9015/21	Aher Ganesh Shivram	
11	9016/21	Chothe Trupti Rajendra	
12	9017/21	Gaikwad Dipak Govind	
13	9018/21	Gode Rajesh Sampat	
14	9019/21	Hilim Ravindra Sanjay	
15	9020/21	Kurva Sanjay Bhau	
16	9021/21	Mahale Sunil Popat	

Checked by :

Examiner :-

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604

Short Term Course 2021-22

Certificate course in "Solar Photovoltaic System" under UGC-NSQF
Attendance (Theory Exam)



Class : T.Y.B.Sc.

Date: _____

Time: 2:30 hrs

Sr. No.	Roll Number	Name of the Student	Signature
1	9032/21	Bagul Akash Keshev	
2	9033/21	Bhavari Kiran Pandurang	
3	9034/21	Chaudhari Tushar Narayan	
4	9035/21	Dodhad Kriti Bhavesh	
5	9036/21	Dodhad Ramesh Ananta	
6	9037/21	Harpale Aditya Rajesh	
7	9038/21	Kharpade Sapna Lahu	
8	9039/21	Padir Jayesh Narendra	
9	9040/21	Pawar Devyani Madhukar	
10	9015/21	Aher Ganesh Shivram	
11	9016/21	Chothe Trupti Rajendra	
12	9017/21	Gaikwad Dipak Govind	
13	9018/21	Gode Rajesh Sampat	
14	9019/21	Hilim Ravindra Sanjay	
15	9020/21	Kurva Sanjay Bhau	
16	9021/21	Mahale Sunil Popat	

Checked by :

Examiner :-

Sr. No.	Roll No.	Name of Students	Date													
			20/10/21	21/10/21	27/10/21	29/10/21	4/11/21	7/11/21	10/11/21	17/11/21	18/11/21	24/11/21				
1.	9032/21	Bagul Akash Keshev	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul
2.	9033/21	Bhavari Kiran Pandurang	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari	Bhavari
3.	9034/21	Chaudhari Tushar Narayan	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.	Chaud.
4.	9035/21	Dodhad Kriti Bhavesh	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad
5.	9036/21	Dodhad Ramesh Ananta	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad
6.	9037/21	Harpale Aditya Rajesh	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale
7.	9038/21	Kharpade Sapna Lahu														
8.	9039/21	Pacir Jayesh Narendra	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir	Pacir
9.	9040/21	Pawar Devyani Madhukar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar
10.	9015/21	Aher Ganesh Shivram	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher	Aher
11.	9016/21	Chothe Trupti Rajendra	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe	Chothe
12.	9017/21	Gaikwad Dipak Govind	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad
13.	9018/21	Gode Rajesh Sampat	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode	Gode
14.	9019/21	Hilim Ravindra Sanjay	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim	Hilim
15.	9020/21	Kurva Sanjay Bhau	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva	Kurva
16.	9021/21	Mahale Sunil Popat	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale	Mahale

Course Coordinator



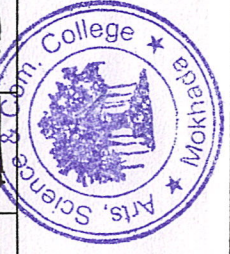
Head of Department

Mr Vitwar S.K. Pract, 2.

Mr. Fudele S.A.
Pract. 2

Rayat Shikshan Sanstha's
Arts, Science & Commerce College Mokhada, Tal. Mokhada, Dist. Palghar 401 604.
Certificate Course in "Solar Photovoltaic System" under UGC-NSQF
Attendance Sheet 2021-2022

Sr. No.	Roll No.	Name of Students	11/10/22	17/10/22	18/10/22	21/10/22	24/10/22	Date
1.	9032/21	Bagul Akash Keshev	Bagul	Bagul	Bagul	Bagul	Bagul	24/10/22
2.	9033/21	Bhavari Kiran Pandurang	BBari	BBari	BBari		BBari	24/10/22
3.	9034/21	Chaudhari Tushar Narayan	Chud	Chud	Chud			
4.	9035/21	Dodhad Kriti Bhavesh	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	24/10/22
5.	9036/21	Dodhad Ramesh Ananta	Dodhad	Dodhad	Dodhad	Dodhad	Dodhad	24/10/22
6.	9037/21	Harpale Aditya Rajesh	Harpale	Harpale	Harpale	Harpale	Harpale	24/10/22
7.	9038/21	Kharpade Sapna Lahu						
8.	9039/21	Padir Jayesh Narendra	Padir	Padir	Padir	Padir	Padir	24/10/22
9.	9040/21	Pawar Devyani Madhukar	Pawar	Pawar	Pawar	Pawar	Pawar	24/10/22
10.	9015/21	Aher Ganesh Shivram	Aher	Aher	Aher	Aher	Aher	24/10/22
11.	9016/21	Chothe Trupti Rajendra	Chothe	Chothe	Chothe	Chothe	Chothe	24/10/22
12.	9017/21	Gaikwad Dipak Govind	Gaikwad	Gaikwad	Gaikwad	Gaikwad	Gaikwad	24/10/22
13.	9018/21	Gode Rajesh Sampat	Gode	Gode	Gode	Gode	Gode	24/10/22
14.	9019/21	Hilim Ravindra Sanjay	Hilim	Hilim	Hilim	Hilim	Hilim	24/10/22
15.	9020/21	Kurva Sanjay Bhau	Kurva	Kurva	Kurva	Kurva	Kurva	24/10/22
16.	9021/21	Mahale Sunil Popat	Mahale	Mahale	Mahale	Mahale	Mahale	24/10/22



Course Coordinator

Head of Department

Mr. Vitnor S.K.
Theruv 04

Rayat Shikshan Sanstha's
Arts, Science & Commerce College Mokhada, Tal. Mokhada, Dist. Palghar 401 604.
Certificate Course in "Solar Photovoltaic System" under UGC-NSQF
Attendance Sheet 2021-2022

Sr. No.	Roll No.	Name of Students	Date															
			28/10/21	29/10/21	30/10/21	31/10/21	01/11/21	02/11/21	03/11/21	04/11/21	05/11/21	06/11/21	07/11/21	08/11/21				
1.	9032/21	Bagul Akash Keshav	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
2.	9033/21	Bhavari Kiran Pandurang	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
3.	9034/21	Chaudhari Tushar Narayan	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
4.	9035/21	Dodhad Kriti Bhavesh	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
5.	9036/21	Dodhad Ramesh Ananta	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
6.	9037/21	Harpale Aditya Rajesh	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
7.	9038/21	Kharpade Sapna Lahu																
8.	9039/21	Padir Jayesh Narendra	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
9.	9040/21	Pawar Devyani Madhukar	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
10.	9015/21	Aher Ganesh Shivram	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
11.	9016/21	Chothe Trupti Rajendra	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
12.	9017/21	Gaikwad Dipak Govind	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
13.	9018/21	Gode Rajesh Sampat	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
14.	9019/21	Hilim Ravindra Sanjay	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
15.	9020/21	Kurva Sanjay Bhau	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
16.	9021/21	Mahale Sunil Popat	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present



Course Coordinator
[Signature]

Head of Department
[Signature]

Mr. Funder S.A.

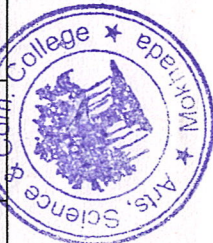
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Rayat Shikshan Sanstha's

Arts, Science & Commerce College Mokhada, Tal. Mokhada, Dist. Paighar 401 604.
Certificate Course in "Solar Photovoltaic System" under UGC-NSQF

Attendance Sheet 2021-2022

Sr. No.	Roll No.	Name of Students	Date											
1.	9032/21	Bagul Akash Keshev	01/03/22	04/03/22	07/03/22	08/03/22	11/03/22	12/03/22	14/03/22	18/03/22	21/03/22	24/03/22	25/03/22	28/03/22
2.	9033/21	Bhavari Kiran Pandurang	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul	Bagul
3.	9034/21	Chaudhari Tushar Narayan	Truly	Truly	Truly	Truly	Truly	Truly	Truly	Truly	Truly	Truly	Truly	Truly
4.	9035/21	Dodhad Kriti Bhavesh	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract
5.	9036/21	Dodhad Ramesh Ananta	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract
6.	9037/21	Harpale Aditya Rajesh	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale	Harpale
7.	9038/21	Kharpade Sapna Lahu												
8.	9039/21	Padir Jayesh Narendra	Padir	Padir	Padir	Padir	Padir	Padir	Padir	Padir	Padir	Padir	Padir	Padir
9.	9040/21	Pawar Devyani Madhukar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar
10.	9015/21	Aher Ganesh Shivram	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM
11.	9016/21	Chothe Trupti Rajendra	P	P	P	P	P	P	P	P	P	P	P	P
12.	9017/21	Gaikwad Dipak Govind	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract	Contract
13.	9018/21	Gode Rajesh Sampat	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul	Rshul
14.	9019/21	Hilim Ravindra Sanjay	Rush	Rush	Rush	Rush	Rush	Rush	Rush	Rush	Rush	Rush	Rush	Rush
15.	9020/21	Kurva Sanjay Bhau												
16.	9021/21	Mahale Sumil Popat	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale	Enahale



Prateek
Course Coordinator

Prateek
Head of Department

N. B.: 1) Read all questions

Name: Begul Akash Keshav

Date: _____

Roll no.: 9032



Q.1 Multiple Choice Questions.

(30)

1) Most widely used solar material is.....

- A. Arsenic
 C. Silicon
 B. Cadmium
 D. Steel

2) Photovoltaic cell or solar cell converts.....

- A. Thermal energy into electricity
 B. Electromagnetic radiation directly into electricity
 C. Solar radiation into thermal energy
 D. Solar radiation into kinetic energy

3)is one of the most important materials is also known as solar grade silicon.

- A. Crushed silicon
 C. Powdered silicon
 B. Crystalline silicon
 D. Silicon

4) A module in a solar panel refers to

- A. Series arrangement of solar cells.
 C. Series and parallel arrangement of solar cells.
 B. Parallel arrangement of solar cells.
 D. None of the above.

5) The efficiency of the solar cell is about

- A. 25 %
 C. 40 %
 B. 15 %
 D. 60 %

6) Batteries used for electrical energy storage are

- A. Laclanche cells
 C. Lead acid cells
 B. Edison cells
 D. Any of the above

7) Solar cells are made from bulk materials that are cut into wafer of _____ thickness.

- A. 120-180 μ m
 C. 180-220 μ m
 B. 120-220 μ m
 D. 180-240 μ m

8) Satellite power requirement is provided through

- A. Solar cells
 C. Nickel cadmium cells
 B. Dry cells
 D. Lead acid batteries

9) The capacity of a battery is expressed in terms of

- A. Current rating
 C. Ampere hour rating
 B. Voltage rating
 D. None of the above

10) On over charging a battery

- A. It will bring about chemical change in active materials
 B. It will increase the capacity of the battery
 C. It will raise the specific gravity of the electrolyte
 D. None of the above



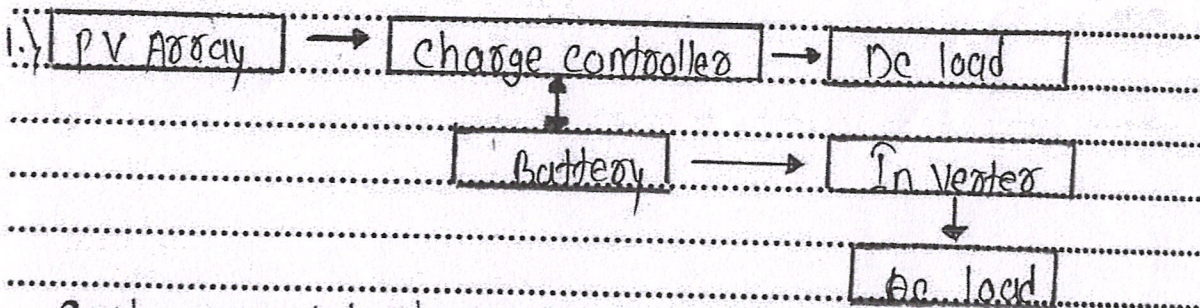
- 11) Battery charging equipment is generally installed
A. In well ventilated location
B. In clean and dry place
C. As near as practical to the battery being charged
✓ D. In location having all above features
- 12) To prevent local action in battery, only is used in electrolytes
A. Pump water
C. Tap water
✓ B. Distilled water
D. Both A and C
- 13) Which of the following battery is used for aircraft?
A. Lead acid battery
C. Dry cell battery
✓ B. Nickel-iron battery
D. Silver oxide battery
- 14) The current density of a photo voltaic cell ranges from
A. 10 – 20 mA/cm²
C. 20 – 40 mA/cm²
✓ B. 40 – 50 mA/cm²
D. 60 – 100 mA/cm²
- 15) A _____ system is used to produce electricity by using the sunlight through photovoltaic effect.
A. Solar power generation
C. Seebeck
✓ B. Photoelectric
D. Thomson

Q.2 Attempt any two Questions

(20)

1. Explain with block diagram On Grid Photovoltaic system.
2. With the help of block diagram, explain Off Grid photovoltaic system.
3. Explain with the help of block diagram Hybrid Photovoltaic system.

Answers

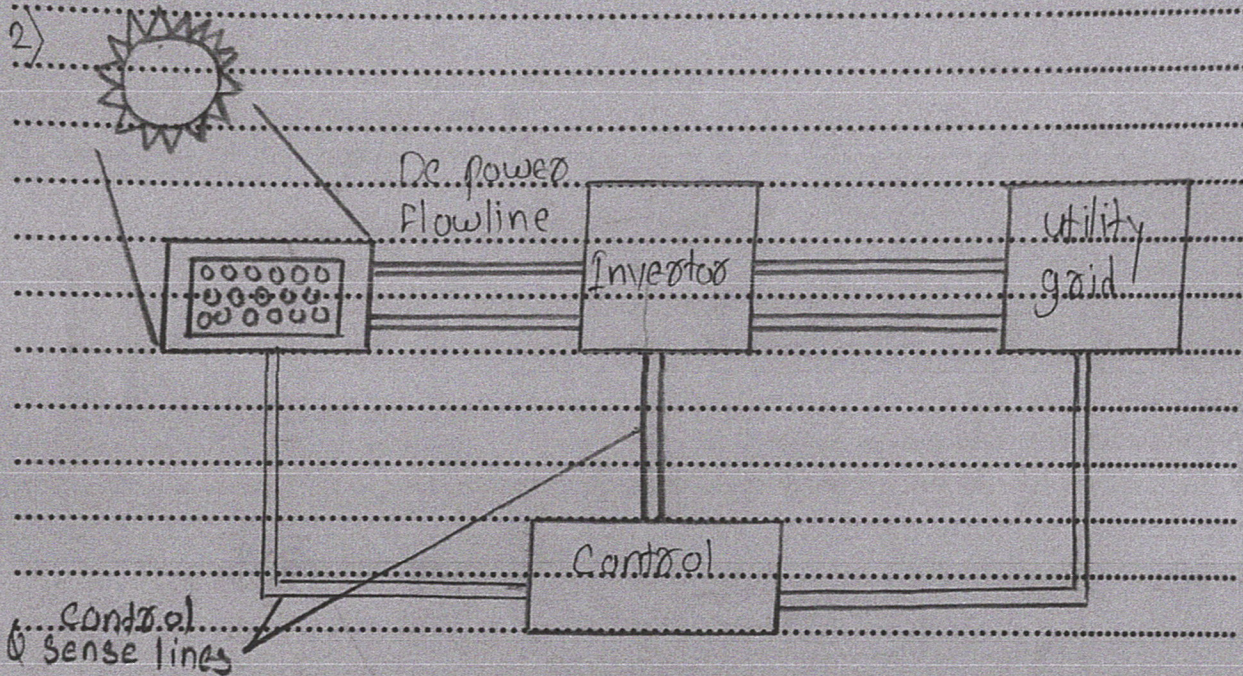


Grid-connected photovoltaic system -

A grid-connected photovoltaic system or grid-connected PV system is an electricity generating solar PV power system that is connected to the utility grid -

operation - Residential grid-connected rooftop system which have a capacity more than 10 kilowatts can meet the load of most consumers photovoltaic wattage may be less than average consumption, in which case the consumer will continue to purchase grid energy but a lesser amount than previously.

Features - Electric power from photovoltaic panels must be converted to alternating current by a power inverter if it is intended for delivery to a power grid. The inverter sits between the solar array and grid and may be a large stand-alone unit or may be a collecting of small inverters attached to individual solar panels as an AC module.

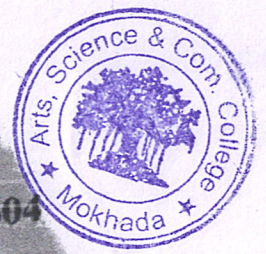


All solar power systems work on the same basic principles. solar panels first convert solar energy or sunlight into DC power using what is known as the photovoltaic (PV) effect. The DC power can then be stored in a battery or converted by a solar inverter into AC power which can be used to run home appliances.

off-grid also known as stand-alone power system.

solar panels can generate energy during cloudy and overcast weather, but the amount of energy depends on the thickness and height of the clouds.


off-grid solar system require specialised off-grid inverters and battery system large enough to store energy for 2 or more days. Hybrid-grid:

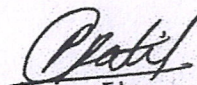


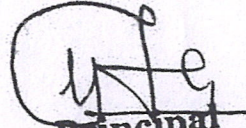
Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604
Short Term Course 2021-22
Certificate course in "Solar Photovoltaic System" under UGC-NSQF
Mark sheet

Class: T. Y. B. Sc.

Sr. No.	Roll Number	Name of the Student	Marks obtained		
			Theory	Practical	Total
1	9032/21	Bagul Akash Keshev	38	26	64
2	9033/21	Bhavari Kiran Pandurang	40	27	67
3	9034/21	Chaudhari Tushar Narayan	35	25	60
4	9035/21	Dodhad Kriti Bhavesh	42	28	70
5	9036/21	Dodhad Ramesh Ananta	36	24	60
6	9037/21	Harpale Aditya Rajesh	37	26	63
7	9038/21	Kharpade Sapna Lahu	AB	AB	AB
8	9039/21	Padir Jayesh Narendra	38	28	66
9	9040/21	Pawar Devyani Madhukar	36	25	61
10	9015/21	Aher Ganesh Shivram	34	26	60
11	9016/21	Chothe Trupti Rajendra	36	26	62
12	9017/21	Gaikwad Dipak Govind	37	26	63
13	9018/21	Gode Rajesh Sampat	32	22	54
14	9019/21	Hilim Ravindra Sanjay	35	26	61
15	9020/21	Kurva Sanjay Bhau	36	27	63
16	9021/21	Mahale Sunil Popat	33	25	58


Course Coordinator


Head of the Department


Principal
Arts, Science & Com. College
Mokhada, Dist. Palghar

Rayat Shikshan Sanstha's
Arts, Science and Commerce College Mokhada, Dist. Palghar
Department of Mathematics
Short term Course Solar Photovoltaic System

Report 2021-22

The short-term course entitled “**Solar Photovoltaic System**” was carried out by department of Mathematics. Total 16 students were enrolled this course. During these course various techniques related to solar photovoltaic system were taught to the students. Total 15 students have successfully completed this course.



A handwritten signature in blue ink, appearing to read "P. Patil".

Head,
Department of Mathematics



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604

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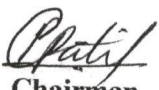
SHORT TERM/ COC/ SKILL BASED/CERTIFICATE COURSE COMMITTEE
Report 2021-22

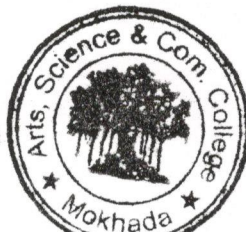
Date: 20/04/2022


The college take initiative in enhancing student's knowledge by introducing short term/COC/Skill based/Certificate course which are run by all departments in association with Karmveer Vidya Prabodhini. The following are departments with respective courses and number of beneficiaries:

Sr. No.	Department	Course Name	Course Code	No. of students admitted to course	No. of students completed the course
1	Physics	Electrical appliances, Maintenance and repair(NSQF)	USPS01	20	20
2	Physics	C- Programming	USPS02	22	22
3	Chemistry	Instrumental Method in Chemical Analysis	USCS01	18	18
4	Chemistry	Introduction of Periodic Table	USCS02	14	14
5	Chemistry	Preparation of Household Products	USCS03	15	14
6	Botany	Fruit and vegetable processing	USBS01	14	11
7	Botany	Biodiversity & Conservation	USBS02	15	12
8	Zoology	Basics of Sericulture	USZS01	13	12
9	Zoology	Vermicomposting(NSQF)	USZS02	20	20
10	Mathematics	Solar Photovoltaic System(NSQF)	USMS01	16	15
11	Commerce	Insurance	USCO03	36	36
12	Commerce	Business accounting	USCO01	46	46
13	Commerce	E-Banking	USCO02	34	34
14	Marathi	Mudrit Shodhan	UAMS01	18	17
15	Economics	Agricultural Marketing	UAECS01	19	19
16	Economics	Banking & Finance	UAECS02	41	39
17	History	Tourism Management	UAHS01	23	19
18	History	Tribal Handicrafts	UAHS02	37	30
19	English	Communication skills in English	UAES01	40	36
20	Psychology	Personality Development	UAPS01	37	37
21	History(MA-I)	Vrutpatratil Aitihisik Nondincha Vikas	PAHS01	30	30
22	History(MA-II)	Granthalay Vyavasthapan	PAHS02	12	12
Total				540	513

During this academic year, fourteen new certificate courses are introduced by all departments except department of Marathi & English. Students were assessed to check the knowledge they obtained during the course. Most of students have shown good gesture while attending their courses and have successfully completed these courses.


Chairman
Short term Committee




IQAC
Co-ordinator


Principal
Arts, Science & Commerce College
Mokhada, Dist. Palghar



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar

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Affiliated to University of Mumbai, Mumbai

SHORT TERM/ COC/ SKILL BASED/CERTIFICATE COURSE COMMITTEE

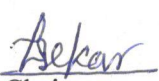
Report 2020-21

Date: 10/04/2021

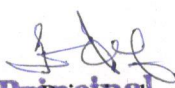
The college take initiative in enhancing student's knowledge by introducing short term/COC/Skill based/Certificate course which are run by various departments. The following are departments with respective courses and number of beneficiaries:

Sr. No.	Department	Course Name	No. of Beneficiaries
1	Physics	Electrical appliances, Maintenance and repair	18
2	Chemistry	Instrumental Method in Chemical Analysis	11
3	Botany	Fruit and vegetable processing	16
4	Mathematics	Applied Mathematics & Statistical Techniques	13
5	Commerce(COC)	Accounting practices	33
6	Commerce	Business accounting	40
7	Marathi	Mudrit Shodhan	11
8	Economics	Agricultural Marketing	20
9	History	Tourism Management	14
10	English	Communication skills in English	40
11	History(MA-I)	Adivasi Vargache Samajik Prashn ani Upay	11
Total			227

During this academic year, four new certificate courses are introduced by department of Chemistry, Physics, Mathematics & History. Students were assessed to check the knowledge they obtained during the course. Most of students have shown good gesture while attending their courses and have successfully completed this course.


Chairman
Short term Committee




Principal
Arts, Science & Com. College
Mokhada, Dist. Palghar

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604
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SHORT TERM/ COC/ SKILL BASED/CERTIFICATE COURSE COMMITTEE

Report 2019-20

Date: 16/04/2020


The college took initiative in enhancing student's knowledge by introducing short term/COC/Skill based/Certificate course which are run by all departments. The following are departments with respective courses and number of beneficiaries:

Sr. No.	Department	Course Name	Course Code	No. of students admitted to course	No. of students completed the course
1	Physics	Repair & Maintenance of domestic appliances	USPS03	4	4
3	Botany	Certificate Course in Nursery management	USBSS02	18	16
6	Botany	Fruit and vegetable processing	USBS01	18	13
11	Commerce	COC in Accounting Practices	-	32	32
12	Commerce	Business accounting	UCS01	40	40
14	Marathi	Mudrit Shodhan	UAMS01	13	13
19	English	Communication skills in English	-	40	40
Total				165	158

Students were assessed to check the knowledge they obtained during the course. Most of students have shown good gesture while attending their courses and have successfully completed these courses.


Convener
Short term Committee


IQAC
Co-ordinator


Principal
ASC College, Mokhada
Arts, Science & Commerce, College
Mokhada, Dist. Palghar



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604

SHORT TERM/ COC/CERTIFICATE COURSE COMMITTEE

Report 2018-19

Date:15/04/2019


The college introduced short term/COC/Skill based/Certificate course which are run by the college. The following are departments with respective courses and number of beneficiaries:

Sr. No.	Department	Course Name	Course Code	No. of students admitted to course	No. of students completed the course
1	Botany	Fruit and vegetable processing	USBS01	11	9
2	Commerce	COC in Accounting Practices	-	30	30
3	Economics	Agriculture Marketing	UAECS01	19	19
4	Marathi	Gandhi Vichar Sanskar	USGVS01	220	220
5	History	Panchayat Rajya	UASCS01	19	12
6	English	Communication skills in English	-	40	40
7	Commerce	Yoga	UASCYS01	18	18
Total				357	348

Students were assessed to check the knowledge they obtained during the course. Most of students have shown good gesture while attending their courses and have successfully completed these courses.


Convener


IQAC
Co-ordinator


Principal
Arts, Science & Commerce College, Mokhada
Mokhada, Dist. Palghar



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Mokhada Dist. Palghar 401 604

SHORT TERM/ COC/CERTIFICATE COURSE COMMITTEE

Report 2017-18

Date:18/04/2018


The college take initiative in enhancing student's knowledge by introducing short term/COC/Skill based/Certificate course which are run by the college. The following are departments with respective courses and number of beneficiaries:

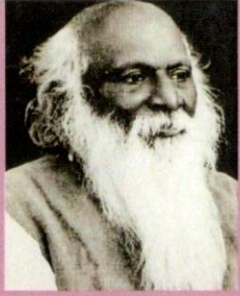
Sr. No.	Department	Course Name	Course Code	No. of students admitted to course	No. of students completed the course
2	Commerce	COC in Accounting Practices	-	30	30
4	Marathi	Gandhi Vichar Sanskar	USGVS01	160	160
6	English	Communication skills in English	-	28	28
Total				218	218

Students were assessed to check the knowledge they obtained during the course. Students have shown good gesture while attending their courses and have successfully completed these courses.


Convener




Principal
ASC College, Mokhada
Arts, Science & Commerce, College
Mokhada, Dist. Palghar



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE



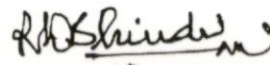
138

This is to certify that Shri / Smt Sarakate manoj Ramdas
..... (Class F.Y. B.Sc) of
(College) Rayat Shikshan Sanstha's Arts, Science and
Commerce College, Mokhada has successfully completed
a short term course in Instrumental methods in Chemical Analysis
Academic year 2021 2022 (From To) and
secured A Grade.

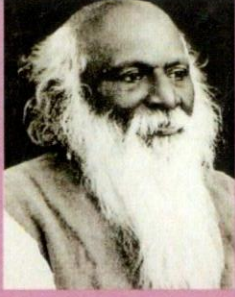



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Arts Science and Commerce College
Mokhada, Dist. Palghar


Executive Director
Karmaveer Vidyaprabodhini


Chairman
Karmaveer Vidyaprabodhi



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

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CERTIFICATE

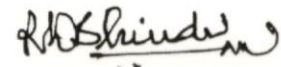



This is to certify that Shri / Smt Pithole Lina Prakash
..... (Class F.Y.B.SC) of
(College) Rayat shikshan sanstha's Arts, science and
commerce college mokhada has successfully completed
a short term course in Instrumental methods in chemical Analysis
Academic year 2021 2022 (From To) and
secured A Grade.

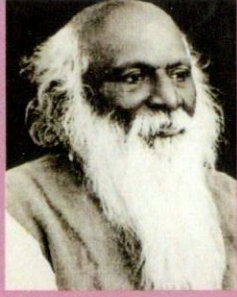



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Mokhada, Dist. Palghar


Executive Director
Karmaveer Vidyaprabodhini


Chairman
Karmaveer Vidyaprabodhi



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Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

CERTIFICATE

This is to certify that Shri / Smt vartha Sunita Kamlakar
..... (Class F.Y.B.Sc) of
(College) Rayat Shikshan Sanstha's Arts science and commerce
college Mokhada has successfully completed
a short term course in Instrumental methods in chemical Analysis
Academic year 2021 2022 (From To) and
secured A Grade.



Arts Sc

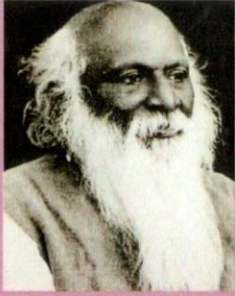
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Arts Science and Commerce College

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R. D. Shinde
Executive Director
Karmaveer Vidyaprabodhini

R. D. Shinde
Chairman
Karmaveer Vidyaprabodhi



Rayat Shikshan Sanstha, Satara
Karmaveer Vidya Prabodhini

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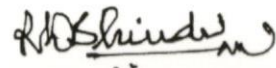
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..... (Class F.Y. B.Sc) of
(College) Rayat shikshan sanstha's Arts, Science and
Commerce College, mokhada has successfully completed
a short term course in Instrumental methods in chemical Analysis
Academic year 2021 2022 (From To) and
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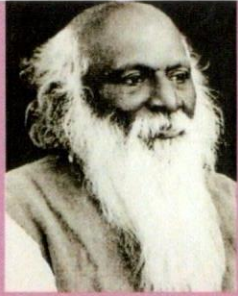



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Karmaveer Vidyaprabodhini


Chairman
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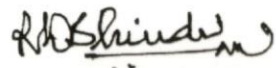
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This is to certify that Shri / Smt Memon Zeba mustak
(Class F.Y. B.Sc) of
(College) Rayat Shikshan Sanstha's Arts science and
commerce college, mokhada has successfully completed
a short term course in Instrumental methods in chemical Analysis
Academic year 2021 2022 (From _____ To _____) and
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