

Rayat Shiksha Santha's  
Rajarshi Chhatrapati Shahu College Kolhapur  
**Department of Physics**  
**Short Term Course Report 2021-22**

Department of physics runs a short term course (COC) entitled "**Understanding of Basic Electronics Devices**" for B.Sc.-III students. The purpose of this Course is to provide basic knowledge of students related with electronic devices and their applications, soldering methods, component study, assembling of circuits and testing etc. The duration of this course is of 30 periods. Dr.V.V.Killedar, HoD physics working as the coordinator of the course.

The students of B.Sc.III Physics are admitted for this course so that after completion of B.Sc. degree the students can use this knowledge for self business or in job in electronics industry. 04 students have taken admission to this course. The course fee is Rs.200/- per student. The lectures of this course was taken on Friday and Saturday of every week. After curriculum completion, the multiple choice test of 50 marks is conducted. The course completion certificate was given to successful students.



  
Dr.V.V.Killedar  
Head  
Department of Physics

**Rayat Shikshan Sanstha's**  
**Rajarshi Chhatrapati Shahu College, Kolhapur**  
**Department of Physics**

**Short term course on "Understanding of Basic Electronics Devices"**

**Academic Year 2021-22**

➤ **Aims & objective:**

1. To provide basic knowledge of electronic components to understand the working of electronic components.
2. To improve electronic skill among the students.
3. To provide job opportunity or self-employment to the students.

➤ **Course Fee:** Rs.200/-

➤ **Course duration:** 30 Periods of 48 Minutes

➤ **Students admitted for the course:** B.Sc.III Physics students

➤ **Syllabus:**

**Unit-I: Introduction Basic electricity**

**6 P**

Safety and precaution of instruments, soldering and desoldering technique, current, voltage, amplitude and frequency.

**Unit-II: Introduction of basic electronic components**

**6 P**

Resistance, capacitance, inductance, transformer construction and working of transformer and its types, type of power supplies i.e. a.c. and d.c., use of multimeter and testing of components

**Unit-III: Understanding of Semiconductor devices**

**6 P**

Introduction to basic semiconductor concept, diode and its types and working, transistors and its type and working.

**Unit IV: Digital IC and Timmer IC555**

**3P**

IC pin diagrams, various digital IC's, Timmer 555 its pin diagram, block diagram and working, applications of IC 555.

**Unit-IV: Building simple circuits on breadboards**

**2 P**

Introduction to PCB, Tag board, Vero board and Breadboard and its uses.

**Unit V: Practical work**

**6P**

1. Testing of digital IC's.
2. Construction of 5V Regulated power supply.
3. Construction of astable, bistable, monostable multivibrator circuits.

**References:**

1. Electronic instruments Hand Book- Clyde F.Combs
2. Electronic engineers Reference Book, L.W.Tuner
3. Starting Electronics, Keith Brindley

  
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 Department of Physics  
 Rajarshi Chh. Shahu College, Kolhapur.

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Department of Physics**

**Short term course on "Understanding of Basic Electronics Devices"**

**Academic Year 2021-22**

**Notice**

All the students of B.Sc.III (Physics) are hereby informed that the Department of Physics is going to run a certificate course entitled "Understanding of Basic Electronics Devices" for academic year 2021-22. All the students should make their registration for this course by paying Rs. 300/- as registration fee .



*5/4/22*  
**Head**  
**Department of Physics**  
**Rajarshi Chh. Shahu College, Kolhapur.**

Rayat Shikshan Sanstha's

Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Physics

Short term course on "Understanding of Basic Electronics Devices"

Academic Year 2021-22

**Notice**

All the students of B.Sc.III (Physics) are hereby informed that the Inaugural function of certificate course entitled "Understanding of Basic Electronics Devices" organized by Department of Physics for academic year 2021-22 will held on 26/4//2022 . All the students should remain present for this function in Raman Laboratory ,Department Physics at 12 pm.



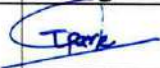
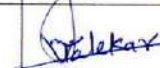
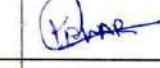
  
**Head**  
**Department of Physics**  
Rajarshi Chh. Shahu College, Kolhapur.

**Rayat Shikshan Sanstha's**  
**Rajarshi Chhatrapati Shahu College, Kolhapur**  
**Department of Physics**

**Short term course on "Understanding of Basic Electronics Devices"**

**Year 2021-22**

**List of admitted students and fees received**

Sr.No.	Roll No.	Name of the student	Mobile No.	Fee received	Student Sign.
1	SIII-113	TUPARE JOTIBA TANAJI	9075080069	300	
2	SIII-114	CHOUGULE SWAPNIL SUNIL	7499910093	300	S. S. chougule
3	SIII-115	TALEKAR VAISHNAVI RANJEET	9665633121	300	
4	SIII-116	POWAR YOGESH SURESH	8999857878	300	
<b>Total</b>				<b>1200/-</b>	

rs. 1200/- deposited in office dated 8/6/2022 Receipt No. 95-97  
 439 (27/7/2022)

  
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Rayat Shikshan Sanstha's  
Rajarshi Chhatrapati Shahu College, Kolhapur

DEPARTMENT OF PHYSICS

Short term course on "Understanding of Basic Electronics Devices"

Academic Year 2021-22

Time Table

Friday and Saturday of Every Week (Two lectures per day)

Lecture Dates

April 2022		May 2022		June 2022	
Date	No. of periods	Date	No. of periods	Date	No. of periods
29/4/2022	1	5/5/2022	1	2/6/2022	2
30/4/2022	1	6/5/2022	1	3/6/2022	2
		7/5/2022	2	4/6/2022	2
		8/5/2022	2	8/6/2022	2
		11/5/2022	2	9/6/2022	2
		13/5/2022	2	10/6/2022	2
		19/5/2022	2	15/6/2022	2
		25/5/2022	1	16/6/2022	2



*(Signature)*

Dr. V. V. Killedar  
Coordinator & Head  
Department of Physics

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**Rayat Shikshan Sanstha's**  
**Rajarshi Chhatrapati Shahu College, Kolhapur**  
**Department of Physics**

Short term course on "Understanding of Basic Electronics Devices"

**Academic Year 2021-22**

**Student attendance sheet**

Roll No.	Name of the student	29/4/2022	30/4/2022	5/5/2022	6/5/2022	7/5/2022	8/5/2022	11/5/2022	13/5/2022	19/5/2022
SIH-113	TUPARE JOTIBA TANAJI	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>
SIH-114	CHOUGULE SWAPNIL SUNIL	S.S. Chougule	S.S. Chougule	S.S. Chougule	A	A	S.S. Chougule	S.S. Chougule	S.S. Chougule	S.S. Chougule
SIH-115	TALEKAR VAISHNAVI RANJEET	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>
SIH-116	POWAR YOGESH SURESH	<del>Present</del>	A	<del>Present</del>	<del>Present</del>	A	A	<del>Present</del>	<del>Present</del>	A

**Academic Year 2021-22**

**Student attendance sheet**

Roll No.	Name of the student	25/5/2022	26/5/2022	3/6/2022	4/6/2022	8/6/2022	9/6/2022	10/6/2022	15/6/2022	16/6/2022
SIH-113	TUPARE JOTIBA TANAJI	<del>Present</del>	<del>Present</del>	A	<del>Present</del>	A	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>
SIH-114	CHOUGULE SWAPNIL SUNIL	S.S. Chougule	S.S. Chougule	S.S. Chougule	S.S. Chougule	S.S. Chougule	A	A	S.S. Chougule	S.S. Chougule
SIH-115	TALEKAR VAISHNAVI RANJEET	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>	<del>Present</del>
SIH-116	POWAR YOGESH SURESH	<del>Present</del>	<del>Present</del>	A	<del>Present</del>	<del>Present</del>	A	<del>Present</del>	<del>Present</del>	<del>Present</del>

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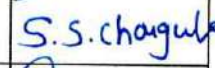

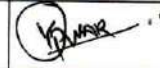
**Short term course on "Understanding of Basic Electronic Devices"**

**Year 2021-22**

**Attendance Sheet of Course Test**

**Day : Friday**  
**Date: 24/06/2022**

**Time : 3.00 to 4.00 pm**

Sr.No.	Roll No.	Name of the student	Sign
1	SIII-113	Jotiba Tanaji Tupare	
2	SIII-114	Swapnil Sunil Chougule	
3	SIII-115	Vaishnavi Ranjeet Talekar	
4	SIII-116	Yogesh Suresh Powar	




Dr. V. V. Kiltedar

Head

Department of Physics

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Rayat Shikshan Sanstha's  
Rajarshi Chhatrapati Shahu College, Kolhapur  
Short Term Course In Physics  
Understanding of Basic Electronics Devices  
Academic Year 2021-22

Date: 24/ 06/2022

Maximum Marks: 50

Time: 60 Min.

Class: B.Sc.III Roll No. Name of the student:

- Note: 1. All questions are compulsory  
2. All questions carry equal marks  
3. Each question is for 2 Marks  
4 Write correct answer alphabet in rectangle

- Q.1. In step up transformer secondary voltage is ---- --primary voltage.   
a) greater than b) less than c) equal to
- Q.2. IC 741 is known as ----   
a) Operational amplifier b) Integrated circuit c) Timmer IC
- Q.3. If NPN transistor has current gain of 100 and base current of 1mA then its collector current is ---   
a) 1mA b)10mA c)100mA
- Q.4. The capacitor stores electrical energy in the form of -----   
a) Electric field b) magnetic field c) electro-magnetic field
- Q.5. LDR stands for -----   
a) Light Dependent Resistor b) Light Doped Resistor  
c) Light Dependent Rectifier
- Q. 6. In photodiode its current increases with ----   
a) increase in intensity of light falling on it b) current in the circuit  
c) resistance in the circuit
- Q.7. IN0001 is ---- diode   
a) rectifier b) zener c) photo
- Q.8. In circuit symbol of NPN transistor the arrow -----   
a) points out of the emitter b) points into the emitter  
c) points out of the collector
- Q.9. IC 555 is used as -----   
a) Astable multivibrator b) monostable multivibrator c) both (a) & (b)
- Q.10. In bridge rectifier the numbers of diodes used are ----   
a) 4 b) 2 c) 3

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Rayat Shikshan Sanstha's  
Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Physics

Short term course on "Understanding of Basic Electronics Devices"

Year 2021-22

Result Sheet

Sr.No.	Roll No.	Name of the student	Marks obtained out of 50
1	SIII-113	Jotiba Tanaji Tupare	44
2	SIII-114	Swapnil Sunil Chougule	38
3	SIII-115	Vaishnavi Ranjeet Talekar	42
4	SIII-116	Yogesh Suresh Powar	46



Dr.V.V.Killedar

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“Education through self-help is our motto”- Karmaveer

Rayat Shikshan Sanstha's

**Rajarshi Chhatrapati Shahu College, Kolhapur**

( Reaccredited 3<sup>rd</sup> Cycle by NAAC at 'A' Grade with CGPA 3.07 )

**DEPARTMENT OF PHYSICS**

## **CERTIFICATE OF PARTICIPATION**

This is to certify that, Mr./Miss. \_\_\_\_\_

has successfully completed the certificate course on “ *Understanding of Electronic Devices* ” of 30 period duration conducted by Department of Physics during academic year 2021-2022.

Dr. V. V. Killedar  
Coordinator



Prof.(Dr.) R.S.Dubal  
I/C Principal

