

Government Degree College Razole



**Certificate Course On
Electrical Wiring & Appliances
2020-21**

Department of Physics

Government Degree College Razole, EGDT, AP

Department of Physics

Introduction:

Department of physics, Government Degree College Razole is proposed to organize Certificate Course in "Electrical Wiring & Appliances" to develop self-ability and self-employment opportunities in the under graduate students of our college.

Objectives:

1. To develop the concepts on the principles of electrical & electronic circuit components.
2. Troubleshooting the laboratory equipment and domestic electrical appliances.
3. To provide self-employment opportunities

Course duration: 30 hours

Topics to be covered:

S.No.	Topic	No. of periods allotted
1.	Basics of Electricity	8
2.	First Aid-Safety Precautions	3
3.	Wiring Circuits and Systems	12
4.	Earthing	3
5.	AC Starters	4
Total		30

1. Basics of Electricity:

- 1.1 Ohms law: Electric circuit-conductors -insulators. Semiconductors-electric potential-resistance-Ohms law -resistances in series and parallel simple problem.
- 1.2 Work -Power-Energy: definition of work, power and energy. Simple problems on power and Energy - problems on energy consumption and monthly billing - DC & AC powers
- 1.3 Cells: primary cells -secondary cells- lead acid cells construction and working - efficiencies of Cells- defects in cells -charging methods- maintenance

2. First aid -safety precautions:

Precautions to be taken of various stages (while handling tools, during wiring etc.) -electric fire precautions against shocks -first aid artificial respirations

3. Wiring Circuits and system

- 3.1 Wiring Systems: Energy Distribution Systems - Distribution Board system - T System - Tree System Loop - In - System - Advantages - Disadvantages.
- 3.2 House Wiring: Selection of wiring - C.T.S. wiring casing and capping - conduit wiring (concealed and surface) - comparison of different types of wirings.
- 3.3 Wiring Circuits: Simple Lamp circuits - staircase wiring - Corridor wiring - Master circuit - Lodge Wiring - Go down wiring - Tube Light Circuit Running Light Circuit.

4. Earthing:

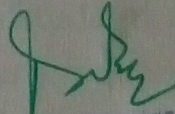
Necessity of Earthing – Methods of Earthing – Pipe Earthing – Plate Earthing.

5. AC Starters:

Necessity of starter – Constructions and working of D.O.L Starter, Star – Delta Starter.

Reference Books:

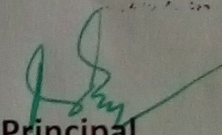
1. "Basic electrical Engineering" by V.K.Mehta
2. "Consumer Electronics" by Bali


Vice Principal
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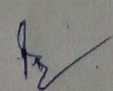
NOTICE

The Department of Physics is very happy to inform you that a Certificate Course on "Electrical Wiring & Appliances" will be started in the second week of November 2020. This Course is open to all the students of this college. Those who are willing to join in this Course are requested to enroll their names and may contact Sri T.S.V. Padmanabham, In-charge of the Department of Physics before second week of November 2020.

G. Srinivas
Course-Coordinator


Principal
Vice Principal
Govt. Degree College
MAAC 'B' Grade
RAZOLE - E.G.D.

Circulate To:

II B.Sc. MPC TM : 
II B.Sc. MPC EM : G. Srinivas
II B.Sc. MPCS : 

Student Enrollment:

S.No.	Name of the Student	Class
1	NAKKA KOMALI SAI MALLESWARI	II B.Sc. MPC
2	VARDHANAPU SUMA	II B.Sc. MPC
3	REKAPALLI VENKATA SATYANARYANA	II B.Sc. MPC
4	VASAMSETTY K SAI KRISHNA	II B.Sc. MPC
5	MUTHYA SRI	II B.Sc. MPC
6	POTHULA THANMAYI	II B.Sc. MPC
7	ADABALA NAGA MASARAJU	II B.Sc. MPC
8	SERU DURGA NAGENDRA VARMA	II B.Sc. MPC
9	BOMMIDI SIRISHA	II B.Sc. MPC
10	KADALI SRAVANI	II B.Sc. MPC
11	KATTA THANUJA	II B.Sc. MPC
12	KUDUPUDI SRI GOWRI SIVANI	II B.Sc. MPC
13	KUSUMA HEMA SRI	II B.Sc. MPC
14	NAGALLA NAVYA SRI	II B.Sc. MPC
15	NAGARAM DURGA	II B.Sc. MPC
16	PATI LAVANYA	II B.Sc. MPC
17	PECHETTI GEETHANJALI	II B.Sc. MPC
18	SIRIGINEEDI DURGA VINEESHA	II B.Sc. MPC
19	SRUNGAVARAPU MAHALAKSHMI MANASA	II B.Sc. MPC
20	ANKANI SAI	II B.Sc. MPC
21	APPARI LAKSHAMAN KUMAR	II B.Sc. MPC
22	BOMMIDI VENKAT	II B.Sc. MPC
23	BONTHU RAHUL	II B.Sc. MPC
24	DIGUMARTHI VENKATA SURYA	II B.Sc. MPC
25	KAMBHAM ABHINAY	II B.Sc. MPC
26	KATTA DURGA PRASAD	II B.Sc. MPC
27	KOLLU OME CHANDRA	II B.Sc. MPC
28	PUDAPUDI KIRAN KUMAR	II B.Sc. MPC
29	TELLAKULA SUBRAMANYAM	II B.Sc. MPC
30	MAMIDISETTI NAVYA SREE	II B.Sc. MPC

Time Table:

Day	Time: 9AM to 10 AM	Day	Time: 9AM to 10 AM
MON	T.S.V.P.	THU	T.S.V.P.
TUE	G.S.R.	FRI	G.S.R.

Head of the Department
Lecturer in Charge

Department of Physics
Government Degree College
(NAAC Reaccredited at 'B' Grade)
RAZOLE - 533 242 E.G.D. (A.P.)

Principal

Vice Principal
Govt. Degree College
NAAC 'B' Grade
RAZOLE - E.G.D.

Student Attendance:

S.No.	Name of the Student	Class II B.Sc.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	NAKKA KOMALI SAI MALLESWARI	MPC	P	P	P	a	a	a	P	P	P	P	P	P	P	P	a
2	VARDHANAPU SUMA	MPC	P	P	P	P	P	P	P	P	a	P	P	a	a	P	a
3	REKAPALLI VENKATA SATYANARYANA	MPC	P	a	a	P	P	P	P	a	P	P	P	P	a	P	a
4	VASAMSETTY K SAI KRISHNA	MPC	a	P	P	P	P	P	P	P	P	P	P	a	P	P	P
5	MUTHYA SRI	MPC	P	P	P	a	a	P	P	P	P	P	P	P	a	P	P
6	POTHULA THANMAYI	MPC	a	P	P	P	P	P	P	P	P	a	a	P	P	P	P
7	ADABALA NAGA MASARAJU	MPC	P	P	P	P	a	a	P	P	P	P	P	P	P	P	a
8	SERU DURGA NAGENDRA VARMA	MPC	P	P	P	P	P	P	a	a	a	a	P	P	P	P	P
9	BOMMIDI SIRISHA	MPCS	P	P	P	a	a	a	P	P	P	P	P	P	P	P	P
10	KADALI SRAVANI	MPCS	a	P	P	P	P	P	P	a	a	P	P	P	P	P	a
11	KATTA THANUJA	MPCS	P	P	P	a	a	P	P	P	P	P	P	P	P	P	P
12	KUDUPUDI SRI GOWRI SIVANI	MPCS	P	P	P	P	P	a	a	P	a	P	P	P	P	P	P
13	KUSUMA HEMA SRI	MPCS	P	P	P	P	P	P	P	a	a	P	P	P	P	P	P
14	NAGALLA NAVYA SRI	MPCS	P	P	a	P	P	P	P	P	a	a	P	P	P	P	P
15	NAGARAM DURGA	MPCS	P	a	a	a	P	P	P	P	P	P	P	P	a	P	P
16	PATI LAVANYA	MPCS	P	P	P	P	P	a	P	a	a	P	P	P	P	P	P
17	PECHETTI GEETHANJALI	MPCS	a	P	P	P	a	a	P	P	P	P	P	P	P	P	P
18	SIRIGINEDI DURGA VINEESHA	MPCS	P	P	P	P	P	P	a	a	P	P	P	P	P	P	P
19	SRUNGAVARAPU MAHALAKSHMI MANASA	MPCS	a	P	P	P	P	a	P	P	P	P	P	P	a	P	P
20	ANKANI SAI	MPCS	P	P	P	P	a	P	P	P	P	a	a	P	P	P	P
21	APPARI LAKSHAMAN KUMAR	MPCS	P	P	P	P	P	P	a	a	P	P	P	P	P	P	P
22	BOMMIDI VENKAT	MPCS	a	P	P	P	a	P	P	P	a	P	P	P	P	a	P
23	BONTHU RAHUL	MPCS	P	P	P	P	a	a	P	P	P	P	a	P	P	P	P
24	DIGUMARTHI VENKATA SURYA	MPCS	P	P	P	a	P	P	P	P	P	P	a	P	P	P	P
25	KAMBHAM ABHINAY	MPCS	P	P	P	P	P	a	P	P	P	P	P	a	a	a	P
26	KATTA DURGA PRASAD	MPCS	P	P	P	P	P	P	a	a	P	P	P	P	P	P	a
27	KOLLU OME CHANDRA	MPCS	a	P	P	P	a	P	P	P	a	P	P	P	P	P	P
28	PUDAPUDI KIRAN KUMAR	MPCS	P	P	P	a	P	P	a	P	P	a	P	P	P	P	P
29	TELLAKULA SUBRAMANYAM	MPCS	a	P	P	P	P	P	P	a	a	P	P	P	P	P	a
30	MAMIDISETTI NAVYA SREE	MPCS	P	P	P	P	P	P	P	P	P	a	a	P	P	a	P

S.No.	Name of the Student	Class II B.Sc.	1 6	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	25	26	27	28	29	30
1	NAKKA KOMALI SAI MALLESWARI	MPC	P	P	P	a	P	P	P	a	P	P	P	P	a	P	a
2	VARDHANAPU SUMA	MPC	P	P	P	P	P	a	P	P	P	a	P	P	P	P	P
3	REKAPALLI VENKATA SATYANARYANA	MPC	P	P	P	a	P	P	P	P	a	a	P	a	a	P	a
4	VASAMSETTY K SAI KRISHNA	MPC	P	P	P	P	P	a	P	P	P	a	P	P	P	P	P
5	MUTHYA SRI	MPC	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P
6	POTHULA THANMAYI	MPC	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P
7	ADABALA NAGA MASARAJU	MPC	a	P	P	P	P	P	a	a	P	P	P	P	P	P	P
8	SERU DURGA NAGENDRA VARMA	MPC	P	P	P	P	a	a	P	P	P	P	P	P	P	P	P
9	BOMMIDI SIRISHA	MPCS	P	P	P	P	P	a	P	P	P	P	P	P	a	P	a
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14	NAGALLA NAVYA SRI	MPCS	P	a	P	P	a	P	P	P	P	a	P	a	P	P	P

15	NAGARAM DURGA	MPCS	P	P	a	P	P	P	P	P	a	a	P	P	P	P	P
16	PATI LAVANYA	MPCS	a	P	P	P	P	a	a	P	P	P	P	P	P	P	P
17	PECHETTI GEETHANJALI	MPCS	P	P	P	P	P	P	a	P	P	P	P	P	P	a	
18	SIRIGINEEDI DURGA VINEESHA	MPCS	a	P	P	a	P	a	P	a	P	P	P	P	P	P	
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22	ROMMIDI VENKAT	MPCS	P	P	a	a	P	P	P	P	P	P	a	P	P	P	a
23	BONTHU RAHUL	MPCS	P	a	P	P	P	P	a	P	P	P	P	P	P	P	a
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25	KAMBHAM ABHINAY	MPCS	P	P	a	P	P	P	P	a	P	P	P	P	P	P	P
26	KATTA DURGA PRASAD	MPCS	P	P	P	a	a	P	P	P	a	P	P	P	P	P	a
27	KOLLU OME CHANDRA	MPCS	P	a	P	P	P	a	a	P	P	P	P	P	P	a	P
28	PUDAPUDI KIRAN KUMAR	MPCS	P	P	P	a	P	P	P	P	a	P	P	P	P	P	P
29	TELLAKULA SUBRAMANYAM	MPCS	P	P	P	a	P	P	P	P	P	a	P	P	P	P	a
30	MAMIDISETTI NAVYA SREE	MPCS	P	P	P	P	a	P	P	P	a	P	P	P	P	P	a

Head of the Department.

Lecturer in charge
Department of Physics
Government Degree College
NAAC Reaccredited at 'B' Grade)
RAZOLE - 523 242 E.G.Dt. (A.P.)

Principal
Vice Principal
Govt. Degree College
NAAC 'B' Grade
RAZOLE - E.G.Dt.



GOVERNMENT DEGREE COLLEGE, RAZOLE, E.G.Dt., AP

Department of Physics Certificate Course

Paper: ELECTRICAL WIRING & APPLIANCES

Time: 2 Hrs

Max.Marks: 50

Answer all the following questions each question carries 10 marks i.e., $5 \times 10 = 50M$

1. Define Ohms law. Derive expression for effective Resistance in series combination

(OR)

What are primary and secondary Cells. Write about construction and working lead acid cells

2. Write about precautions to taken in various stages while handling tools during wiring

(OR)

Write about electric fire precautions against shocks and first aid artificial respirations

3. Write about Energy distribution in different wiring systems : Board system, T.system,

Tree system

(OR)

Write about the methods or procedures adopted in House wiring

4. What is the necessity of earthing and write about different methods of earthing

(OR)

Describe the methods of Pipe Earthing and Plate Earthing

5. Explain the necessity of starter. Write about construction & working of D.O.L starter

(OR)

Write briefly about Star and Delta starters



GOVERNMENT DEGREE COLLEGE, RAZOLE, EGDT, AP

(NAAC Reaccredited at B grade with 2.50 CGPA)

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that Mr./Ms.....
of Class successfully completed Certificate
Course in Electrical Wiring & Appliances During the year 2020-21.

In-charge of the Department

Course-Coordinator

Principal