# MINUTES OF THE MEETING

The following resolutions are taken in the meeting:-

- 1) The department of physics is established in the year 2018-2019.
- 2) After discussion of syllabus and examination pattern the BOS PHYSICS OU has approved the syllabus and scheme of examination of certificate course to be introduced in Vivekananda government degree college, Vidyanagar, Hyderabad.
- 3) It is resolved to conduct the examination internally as per approved pattern and the certificates may be given to passed out students.

## Members:

Dr. J. Chinna Babu
 Assistant Professor of Physics
 VGDC, Vidyanagar, Hyderabad.

2) Ms. B. Vijaya Nirmala Associate Professor of Physics VGDC, Vidyanagar, Hyderabad. Prof. D.Ravinder
BOS IN PHYSICS
OSMANIA UNIVERSITY
HYDERABADIAIRMAN
Board of Studies in Physics
Osmania University, Hyd.

CHAIRMAN
Board of Studies in Physics
Osmania University, Hyd.

## VIVEKANANDA GOVERNMENT DEGREE COLLEGE VIDYANAGAR HYDERABAD - 44 DEPARTMENT OF PHYSICS

### CERTIFICATE COURSE

2019-2020 (CBCS)

SKILL ENHANCEMENT OF ELECTRICAL AND ELECTRONICS APPLIANCES

[30 HOURS]

[2 CREDITS]

The aim of this course is

- 1) To enable the students to familiar and experience with various Electrical and Electronics appliances.
- 2) To enable the students to do minor repairs of the instruments.
- 3) To know the basic mechanics of various Electrical and Electronics appliances

#### **UNIT I**

## **ELECTRICAL INSTRUMENTS:**

Resistance - capacitance - inductance and its units - Transformers - Electrical charge current - potential - units and measuring meters - Ohm's law - Galvanometer, ammeter, voltmeter and multimeter. Electrical energy - power - watt - kWh - consumption of electrical power.

ELECTRICAL AND ELECTRONIC SKILL:

Use of Multimeter . soldering of electrical circuits having discrete components (R,L,C,diode) and ICs on PCB. Operation of oscilloscope. Making regulated Power supply

#### UNIT II

## **ELECTRICAL APPLIANCES**

AC and Dc - Single phase and three phase connections - RMS and peak values, House wiring - Star and delta connection - overloading - earthing - short circuiting - Fuses colour code for insulation wires - Inverter - UPS - generator and motor - circuit breaker. Electrical switches.

## **ELECTRONICS APPLIANCES**

Introduction to Semiconductor diode - transistor - LED - LCD - Photo diode - Photo transistor - their uses. Diode rectifiers - half wave and full wave - regulated power supply TV receivers ( qualitative study only ) - TV antenna's - Dish antenna

#### Books for Study:

- 1. A text book in Electrical Technology BL Theraja, S Chand & Co.
- 2. A text book of Electrical technology A K Theraja
- 3. Performance and design of Ac machines M G Say ELBS Edn.
- 4. Semi conductor physics and opto electronics by P K Palanichamy
- 5. Basic Electronics B L Theraja S Chand & Co.
- 6. Principles of Communication Engineering Arokh Singh and A K Chhabra -
- S Chand & Co

B. VIDAYANIRMALA? (Dr. J. Chinnababa)

# VIVEKANANDA GOVERNMENT DEGREE COLLEGE VIDYANAGAR' HYDERABAD - 44 <u>DEPARTMENT OF PHYSICS</u>

## CERTIFICATE COURSE

2019-2020 (CBCS)

SKILL ENHANCEMENT OF ELECTRICAL AND ÉLECTRONICS APPLIANCES

[30 HOURS]

[2 CREDITS]

## SCHEME OF EVALUATION

TIME DURATION = 1 1/2 HOURS

MAXIMUM MARKS = 50

- Assignment = 10 marks
- ➤ Short answer type question (8 x 5 = 40 marks)

Answer any Eight questions , each question carries FIVE marks

UNIT I 1) 2) 3) 4) 5) 6)	CHAIRMAN Physics  Board of Studies in Physics  Comedia University, Hyd.
UNIT II 1) 2) 3) 4) 5) 6)	Board of Studies in Phylogenenia University, Hyd.  Telbriu.,  ( Dy. J. Chinna Baby )
	B.VI) AYA NIRMALA]

### Department of Physics

## REPORT ON CERTIFICATE COURSE

Academic year 2020-2021

1. Name of the Course

: "Skill Enhancement of Electrical and

**Electronics Appliances**"

2. Department

: Physics

3. Duration

:No.of hours 30, No.of days: 30

4. Number of Students Enrolled

32

5. Whether list of students enclosed : Yes

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6. Brief Report

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The course is specially designed to enhance the understanding of students about Skill enhancement of Electrical and Electronics Appliances, which is very use full in our day to day life. It will help students understand mechanisms of Electrical and Electronics Appliances, developing an understanding of different types of Electrical instruments, their uses and constructions of devices like making of regulated power supply. The course was conducted for 30 hours (2 credits) from 01.11.2021 to 28.12.2021

#### 7. Outcome

:

Around 32 students of Physical Science both (MPCs and MPC) students participated in this course. The faculty from Departments of Physics participated and enlightened the students on uses and construction of various Electrical and Electronics instruments. Students were able to develop skills like soldering of electrical circuits and construction of regulated power supply etc. Group Discussions and seminars, Assignments and slip tests were organized and conducted to promote participatory learning. By the end of the course students will be able to understand the importance, develop the skills and construction of Electrical and Electronics Appliances.

Signature of the Incharge

Signature of the Principal

PREM KUMAR	MPCs
G.TEJA	MPCs
G.SHIVA	MPCs
S.RAGHU RAM REDDY	MPCs
K.KIRAN KUMAR	MPCs
K.HARIKRISHNA	MPCs
K.NAVEEN KUMAR	MPCs
M.KAVITHA	MPCs
N. DATTU	MPCs
. MANICHANDER REDD	MPCs
N. RAJ KUMAR	MPCs
V. SUVARDAN REDDY	MPCs
Y.GOPI CHAND	MPCs
R.AISHWARYA	MPC
D.TEJASWINI	MPC
S.ANUSHA	MPC
RAMUDU	MPC
P.AKHIL PAVAN	MPC
M.NARSIMHA CHARY	MPC
Y.SHIVA KUMAR	MPC
R.SANGAMESHWER	MPC
B.SANTOSH	MPC
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