

# **CERTIFICATE COURSE ON MODERN PHYSICS**



**GOVT.DEGREE COLLEGE NARASANNAPETA  
SRIKAKULAM DISTRICT**

**DEPARTMENT OF PHYSICS**

**2022-2023**

GOVT. DEGREE COLLEGE , NARASANNAPETA

SRIKAKULAM DISTRICT

**DEPARTMENT OF PHYSICS**

**SUBJECT RELATED CERTIFICATE COURSE- 2022-23**

**ENROLLED STUDENTS LIST**

**"MODERN PHYSICS"**

Department of physics is going to be conducted a subject related certificate course from 25.10.2022 TO 31.12.2022 for second year students of B.Sc (MPC and MPCS) on "**MODERN PHYSICS** ", the duration of the course is 60 days . The candidates who secure 40% of the marks in the examination will get

S.No.	YEAR	HALLTICKET No.	NAME OF THE STUDENT
1	2 <sup>ND</sup> YEAR	2122004052001	B.BHUJANGA RAO
2	2 <sup>ND</sup> YEAR	2122004052003	B.ROSHINI
3	2 <sup>ND</sup> YEAR	2122004052017	K.MEGHANA
4	2 <sup>ND</sup> YEAR	2122004052019	K.PRAVEEN
5	2 <sup>ND</sup> YEAR	2122004052037	T.SWATHI
6	2 <sup>ND</sup> YEAR	2122004050001	A.HARIPRASAD
7	2 <sup>ND</sup> YEAR	2122004050007	B. GEETHIKA
8	2 <sup>ND</sup> YEAR	2122004050019	L.PAVAN KUMAR

the certificate.

## SYLLABUS OF THE COURSE

### MODULE 1 (15 DAYS) :

**Introduction:** What is modern physics Definition , History and branches.

**ATOMIC AND MOLECULAR PHYSICS :**Bohrs atomic model ,Sommerfelds orbits, Zeeman effect , Raman effect

### MODULE 2 (15 DAYS) :

**MATTER WAVES :**Wave length of matter waves ,properties of matter waves . phase and group velocities, Heisenbergs uncertainty principle and quantum mechanics.

### MODULE 3 (15DAYS) :

**GENRAL PROPERTIES OF NUCLEI :**Basic ideas of nucleus , size , mass , charge density, binding energy , angular momentum , nuclear models ,nuclear radiations detectors ,G.M.counter ,cloud chamber, elementary particles.

### MODULE4[15 DAYS]:

**Nano materials:** Nano materials-introduction, electron confinement ,size effect ,classification of nano materials ,CNT ,Distinct properties of nano materials.