

Government Degree College

Affiliated to Andhra University

(Upgraded to Model Degree College under RUSA 2.0)

Paderu, Alluri Sitharama Raju - District, AP.

Est:1985 NAAC "C" Grade phone no: 08935 250013

Email.ID : paderu.jkc@gmail.com.

DEPARTMENT OF PHYSICS

Certificate Course

LASER for Future Science

Academic year

2022 – 2023

Government Degree College

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Proposal for Certificate Course in Lasers for Future Science

Academic year 2022 – 2023

From
The Course Coordinator
Dept of Physics
Govt Degree College
Paderu
Sir,

To
The Principal
Govt Degree College
Paderu

Sub: Proposal for starting Certificate Course in Laser for Future Science to B.A., B.Sc., B.Com. students of our college – Request regarding.

Our department of Physics is planning to start a certificate course in 'Laser for Future Science' to the students of all groups choosing the interested candidates. This course can enhance the student knowledge in optical field like Lasers which has wide applications.

In this regard we humbly request your esteemed self to conduct staff council meeting for discussing the syllabus and course outcomes.

Thanking you sir,

Name of the Certificate Program: **Lasers for Future Science**
Course Coordinator : **Sri.P. Chandra Sekhar**


Course Coordinator


IQAC Coordinator




Principal
Govt Degree College
PADERU-531024
Alluri Sitharama Raju Dist.

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DEPARTMENT OF PHYSICS

Academic Year:2022-2023

Laser for Future Science

Minutes of Meeting

Date: 27/01/2023

The Department of Physics held a meeting in the department on 27/01/2023 at 3:00 PM to discuss the following agenda.
Agenda:

- Introduction of Certificate course on Laser for Future Science in Department of Physics.
- To prepare syllabus, blue print and question paper.
- Completion of course

Discussion and resolution:

- It is discussed and resolved that to introduce a certificate course on Laser for Future Science to all the students of the college who are interested to take the course with the prior permission from principal sir.
- It is discussed and resolved to prepare the syllabus, blue print and question paper to the students who were joined in the course. The course will be 30 hrs.
- It is discussed and resolved examine the students after completion of course and certify them.

P. U.



V. Ch.

Principal
Govt. Degree College
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DEPARTMENT OF PHYSICS

Academic Year:2022-2023

Circular

Date:30/01/2023

It is circulated to all the departments to encourage the students to join in the certificate course on "Laser for Future Science" conducted by the Department of Physics. And also please circulate the students to come to department and give their names who are interested.



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SYLLABUS CERTIFICATE COURSE Laser for Future Science Work load: 30 Hours

UNIT I

(10 HOURS)

Introduction to Laser

Basic optics, Absorption, Spontaneous Emission, Stimulated Emission, Einstein Coefficients, Light Amplification, Rate equations

UNIT II

(10 HOURS)

Laser Principles and Conditions

Setup of Laser Sources, Population inversion, Metastable state, Threshold condition, Properties of Laser, Three Level and Four Level systems.

UNIT III

(5 HOURS)

Types of LASER

Solid state Laser, Gas Laser, Liquid Laser, Semiconductor Laser, Chemical Laser, Metal Vapour Laser

UNIT IV

(5 HOURS)

Applications of Laser

Optical and Communication Storage, Laser Machining and cutting, Military and Defence Applications, Meteorological and Geophysical Applications, Laser Imaging and Holography.

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V. Ch

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References:

1. Laser and Non Linear Optics B.B. Loud Willey Eastern Limited
2. A text Book of Optics: Brijilal & Subramanyam S.Chand &Co.
3. Lasers: Principles, Types and Applications by K R Nambiar
4. Laser System and Applications by B K Sharma
5. Atomic and Molecular Spectra: Laser by Raj Kumar
6. Principles of Lasers by O Svelto
7. Lasers :Theory, Principles And Applications by Singh

P.U.



V. Ch.

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DEPARTMENT OF PHYSICS

Detailed Objectives of 'Certificate Course in LASER for Future Science' for all B.A./B.Sc./ B. Com.,

Title: Laser for Future Science

Eligibility: all Under Graduate students of our college

Duration: 30 Hrs

Syllabus: as given below

System of Assessment: internal

Introduction:

Certificate Course in Laser for Future Science: **What is it all about?**

Certificate Course in Laser for Future Science ensures the student to learn about the recent technological developments in the scientific world.

Objectives:

- Certificate Course in Laser for Future Science has been designed for candidates keeping in view that to know about the recent technological developments in sciences especially in Laser field.
- Lasers are the used to process the materials quickly and efficiently.
- This course ensures the student to learn about different applications of Lasers.


Course Coordinator


IQAC Coordinator




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Course outcomes

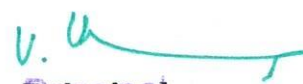
This program benefits participants in the following ways:

1. Understanding the techniques involved in the applications of Lasers.
2. Identification of different types of Lasers
3. Understanding the importance and fascinating the area of importance in the area of Lasers.
4. The student could dwell indepth of Laser after completion of the course.


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DEPARTMENT OF PHYSICS

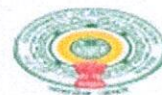
CERTIFICATE COURSE: Laser for Future Science

STUDENTS ENROLLMENT LIST

S.No	Name of the Student	Regd. No.	Group	Signature of the Student
1	A. GOPALA RAO	722125405093	I CBZ	A. Gopal Rao
2	B. DEVAKI	722125405196	I CB SEED TECH	B. Devika
3	B. MANI KUMARI	722125405097	I CBZ	B Mani Kumari
4	B. SAI PRAKASH	722125405002	I MPC	B. Sai prakash
5	B. SUMITRA	722125405137	I BZH	B Sumitra
6	CH. ANITHA	722125405006	I MPC	CH. Anitha
7	CH. TARUN	722125405141	I BZH	Ch. tarun
8	D. KAVYA	722125405052	I MPCs	D. Kavya
9	G. N. TULASI DEVI	722125405145	I BZH	G.N. Tulas Devi
10	H. SANJAY KUMAR	722125405149	I BZH	H. Sanjay Kumar
11	J. RAJITHA	722125405056	I MPCs	J. Rajitha
12	J. SAMBA SIVA RAO	722125405101	I CBZ	J. Samba Sivarao
13	K. ANIL KUMAR	722125405109	I CBZ	K. Anil Kumar
14	K. DEVA RAJU	722125405105	I CBZ	K. Deva Raju
15	K. KONDAMMA	722125405157	I BZH	K. Kondamma
16	K. KOTESWARARAO	122125403020	I B.Com(GEN)	K. Koteswararao
17	K. MALLESWARA RAO	722125405200	I CB SEED TECH	K. Malleswara Rao
18	K. MATYAKONDAMMA	722125405011	I MPC	K. matyakondamma
19	K. NAGARAJU	722125405019	I MPC	K. Naga Raju
20	K. RAMA LAKSHMI	722125405161	I BZH	K. Rama lakshmi
21	K. RANJITHA	722125405064	I MPCs	K. Ranjitha
22	K. RATNA KUMARI	722125405060	I MPCs	K. Rathamma
23	K. RUTHAMMA	722125405015	I MPC	K. Ruthamma
24	K. SUNDAR	722125405153	I BZH	K. Sundar
25	K. SURYA NARAYANA	722125405069	I MPCs	K. Venkatarao
26	K. VENKATA RAO	122125403024	I B.Com(GEN)	K. venkata Rao
27	L. RAMESH	722125405190	I MP WEB TECH	L. Ramesh
28	L. VINAY KUMAR	722125405071	I MPCs	M. Anitha
29	M. ANITHA	722125405113	I CBZ	M. Anitha
30	M. APPANNA	122125403029	I B.Com(GEN)	M. Appanna
31	M. ARUN	122125301027	I HEP	M. Arun
32	M. ASHOK	722125405117	I CBZ	M. Ashok
33	M. PARVATHI	722125405165	I BZH	M. Parvathi
34	M. SOWMYA	722125405093	I MPC	M. Sowmya



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DEPARTMENT OF PHYSICS

CERTIFICATE COURSE: Laser for Future Science

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35	M. VASANTHA KUMARI	722125405025	I MPC	M. Vasantha Kumari
36	O. KISHORE KUMAR	722125405077	I MPCs	O. Kishore Kumar
37	P. ANASUYA	722125405173	I BZH	P. Anasuya
38	P. ASHOK KUMAR	122125301091	I SPL. ENG	P. Ashok Kumar
39	P. BHAGYA SRI	122125301031	I HEP	P. Bhagyaa Sri
40	P. BHAVANI	122125301135	I SPL. TEL.	P. Bhavani
41	P. BHUMIKA	122125301087	I SPL. ENG	P. Bhumika
42	P. DHILEEP	122125403033	I B.Com(GEN)	P. Dhileep
43	P. KEERTHI	722125405169	I BZH	P. Keerthi
44	P. MADHU BABU	722125405081	I MPCs	P. Madhu Babu
45	P. RAVANA	122125301139	I SPL. TEL.	P. Ravana
46	P. SAI BABU	122125301035	I HEP	P. Saibabu
47	P. SURESH	722125405032	I MPC	P. Suresh
48	P. VENKATA RAO	722125405121	I CBZ	P. Venkata Rao
49	R. ANANTHA RAO	122125301143	I SPL. TEL.	R. Ananth Rao
50	R. SAILAJA	722125405085	I MPCs	R. Sailaja
51	S. BHARGAVI	122125301039	I HEP	S. Bhargavi
52	S. DAMODHAR PADAL	722125405204	I CB SEED TECH	S. Damodhar Padal
53	S. MANOHAR	722125405125	I CBZ	S. Manohar
54	S. PRAVEEN KUMAR	722125405035	I MPC	S. Praveen Kumar
55	S. SANDHYA	122125301147	I SPL. TEL.	S. Sandhya
56	S. SRAVANI	122125301095	I SPL. ENG	S. Sravani
57	S. SUMANTH	722125405177	I BZH	S. Sumanth
58	S. VARDHAN RAJU	122125301173	I MC & J	S. Vardhan Raju
59	T. CHINNA RAO	722125405039	I MPC	T. Chinna Rao
60	T. MODHA VENKATA SAI KIRAN	122125301043	I HEP	T. Modhavanakata Saikiran
61	T. VARUN KUMAR	722125405129	I CBZ	T. Varun Kumar
62	U. NANDHEESWARA RAO	722125405208	I CB SEED TECH	U. Nandheeswara Rao
63	U. SRIKANTH	722125405181	I BZH	U. Srikanth
64	V. CHIRANJEEVI	122125301099	I SPL. ENG	V. Chiranjeevi
65	V. GOWRI	722125405043	I MPC	V. Gowri
66	V. JYOTHI	722125405092	I MPCs	V. Jyothi
67	V. KALAVATHI	722125405133	I CBZ	V. Kalavathi
68	V. KRISHNA	122125301051	I HEP	V. Krishna



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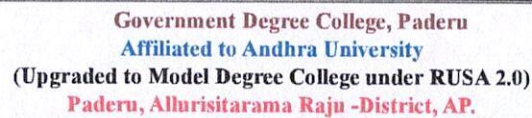
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S.No	Name of the Student	Regd. No.	Group	Signature of the Student
69	V. PANTHULU BABU	122125301103	I SPL. ENG	V. Panthulu babu
70	V. RAJASEKHAR	122125301055	I HEP	V. Rajasekhar
71	V. RAMESH	722125405185	I BZH	V. Ramesh
72	V. SANDHYA RANI	122125301151	I SPL. TEL.	V. Sandhyarani
73	V. VANGAPANDU PRASAD	122125301047	I HEP	V. Vangapandhu prasad.
74	Y. ARUN	722125405047	I MPC	Y. Arun

P. Chandra Sekhar
(P. CHANDRA SEKHAR)

b. Chandra Sekhar

Principal
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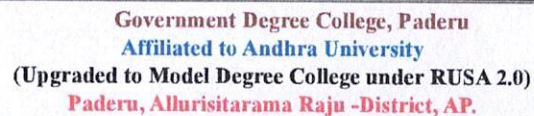
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CERTIFICATE COURSE : LASERS FOR FUTURE SCIENCE

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SL NO	NAME OF THE CANDIDATE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	DAYS PRESENT	
35	M. VASANTHA KUMARI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	35	
36	O. KISHORE KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	35	
37	P. ANASUYA	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	34	
38	P. ASHOK KUMAR	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	33
39	P. BHAGYA SRI	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	33
40	P. BHAVANI	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	33	
41	P. BHUMIKA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	34
42	P. DHILEEP	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	34
43	P. KEERTHI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	34
44	P. MADHU BABU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	34
45	P. RAVANA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	35
46	P. SAI BABU	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	33
47	P. SURESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	34
48	P. VENKATA RAO	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	34
49	R. ANANTHA RAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	34
50	R. SAILAJA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	34
51	S. BHARGAVI	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	a	P	P	P	P	32



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69	V. PANTHULU BABU	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	30
70	V. RAJASEKHAR	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31
71	V. RAMESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31
72	V. SANDHYA RANI	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31
73	V. VANGAPANDU PRASAD	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31
74	Y. ARUN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31

P. Ule
(P. CHANDRA SEKHAR)

N. Ch f
Principal
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DEPARTMENT OF PHYSICS
CERTIFICATE COURSE : LASER FOR FUTURE SCIENCE
ASSESSMENT QUESTIONNAIRE

NAME :

GROUP :

REGD. NO. :

DURATION : 1 HR

MAX. MARKS : 50

Answer **all** questions. Each question carries **TWO MARKS**

1. Concave lens forms _____ image. ()
(a) virtual and upright (b) real and inverted
2. The light rays that emerge from principle focus are _____ to each other. ()
(a) parallel (b) perpendicular
3. Spontaneous emission is non-coherent ()
(a) true (b) false
4. laser is an acronym for _____ ()
(a) Light Application by Stimulated Emission of Radiation
(b) Light Amplified by Spontaneous Emission of Radiation
5. The first laser was ()
(a) He – Ne laser (b) Ruby laser
6. Which of the following is a unique property of laser ()
(a) coherence (b) speed
7. When laser light is focussed on a particular area for a long time, then that Particular area alone will be heated. ()
(a) true (b) false
8. _____ is the process of increasing population in the upper energy Level so that it is greater than the lower energy level, to achieve the laser action ()
(a) Einstein coefficient (b) population inversion
9. To obtain laser output properly, rate of _____ of radiation must dominate the _____ radiations. ()
(a) spontaneous emission, stimulated (b) stimulated emission, spontaneous
10. Einstein co-efficient B_{12} stands for _____ ()
(a) probability of stimulated emission/unit time
(b) probability of absorption/unit time
11. What is the need to achieve population inversion ()
(a) To achieve stable condition (b) To excite most of the atoms
12. Which layer of a CD is responsible for reflecting the laser beam back to the CD player ()
(a) label laser (b) data laser
13. The following is not a CANDIDATE material for laser source in fibre optics. ()
(a) argon (b) phosphorus
14. In a ruby laser, the colour of laser light is due to _____ atom. ()
(a) chromium (b) radium
15. LASER was discovered in _____. ()
(a) 1960 (b) 1970
16. LASER diode emits infrared/visible light ()
(a) true (b) false

17. The advantage of LASER over LED is ()
(a) higher output power (b) higher band width & higher data rate
18. Electrical isolation is the advantage of Optical fibre communication. ()
(a) true (b) false
19. Semiconductor optical amplifier cannot be used for wideband amplification. ()
(a) true (b) false
20. Laser beam machining is considered as _____ type of non-traditional machining Process ()
(a) mechanical (b) thermal
21. The process utilizing mainly thermal energy for material removing is _____ ()
(a) electro chemical machining (b) laser beam machine
22. In Stimulated Absorption, what is the lifetime of atoms ground state? ()
(a) 20 sec (b) infinity
23. Laser is used in LIDAR for what purpose? ()
(a) Range finding (b) drilling
24. Lasers are used for welding of wires because they can be focused onto a fine spot. ()
(a) True (b) False
25. Which characteristic of LASER allows it to be used in holography? ()
(a) Coherency (b) Directionality

f-v



v. ch

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DEPARTMENT OF PHYSICS
CERTIFICATE COURSE : LASER FOR FUTURE SCIENCE
ASSESSMENT QUESTIONNAIRE

NAME : GJYOTH

GROUP : III B.Sc (MPCs)

REGD. NO. : 720125405041

DURATION : 1 HR

MAX. MARKS : 50

Answer **all** questions. Each question carries **TWO MARKS**

1. Concave lens forms _____ image. (A)
(a) virtual and upright (b) real and inverted
2. The light rays that emerge from principle focus are _____ to each other. (A)
(a) parallel (b) perpendicular
3. Spontaneous emission is non-coherent (B)
(a) true (b) false
4. laser is an acronym for _____ (A)
(a) Light Application by Stimulated Emission of Radiation
(b) Light Amplified by Spontaneous Emission of Radiation
5. The first laser was (A)
(a) He – Ne laser (b) Ruby laser
6. Which of the following is a unique property of laser (A)
(a) coherence (b) speed
7. When laser light is focussed on a particular area for a long time, then that Particular area alone will be heated. (A) X
(a) true (b) false
8. _____ is the process of increasing population in the upper energy Level so that it is greater than the lower energy level, to achieve the laser action (B)
(a) Einstein coefficient (b) population inversion
9. To obtain laser output properly, rate of _____ of radiation must dominate the _____ radiations. (A)
(a) spontaneous emission, stimulated (b) stimulated emission, spontaneous
10. Einstein co-efficient B_{12} stands for _____ (A) X
(a) probability of stimulated emission/unit time
(b) probability of absorption/unit time
11. What is the need to achieve population inversion (B)
(a) To achieve stable condition (b) To excite most of the atoms
12. Which layer of a CD is responsible for reflecting the laser beam back to the CD player (A)
(a) label laser (b) data laser
13. The following is not a CANDIDATE material for laser source in fibre optics. (B)
(a) argon (b) phosphorus
14. In a ruby laser, the colour of laser light is due to _____ atom. (A)
(a) chromium (b) radium
15. LASER was discovered in _____. (B) X
(a) 1960 (b) 1970
16. LASER diode emits infrared/visible light (A)
(a) true (b) false



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CERTIFICATE COURSE: LASER FOR FUTURE SCIENCE
COURSE END EXAMINATION MARKS STATEMENT

S.No	Name of the Student	Regd. No.	Group	Marks Awarded
1	A. GOPALA RAO	722125405093	I CBZ	33
2	B. DEVAKI	722125405196	I CB SEED TECH	38
3	B. MANI KUMARI	722125405097	I CBZ	37
4	B. SAI PRAKASH	722125405002	I MPC	35
5	B. SUMITRA	722125405137	I BZH	32
6	CH. ANITHA	722125405006	I MPC	40
7	CH. TARUN	722125405141	I BZH	42
8	D. KAVYA	722125405052	I MPCs	33
9	G. N. TULASI DEVI	722125405145	I BZH	30
10	H. SANJAY KUMAR	722125405149	I BZH	32
11	J. RAJITHA	722125405056	I MPCs	38
12	J. SAMBA SIVA RAO	722125405101	I CBZ	30
13	K. ANIL KUMAR	722125405109	I CBZ	29
14	K. DEVA RAJU	722125405105	I CBZ	31
15	K. KONDAMMA	722125405157	I BZH	43
16	K. KOTESWARARAO	122125403020	I B.Com(GEN)	30
17	K. MALLESWARA RAO	722125405200	I CB SEED TECH	29
18	K. MATYAKONDAMMA	722125405011	I MPC	43
19	K. NAGARAJU	722125405019	I MPC	42
20	K. RAMA LAKSHMI	722125405161	I BZH	32
21	K. RANJITHA	722125405064	I MPCs	40
22	K. RATNA KUMARI	722125405060	I MPCs	40
23	K. RUTHAMMA	722125405015	I MPC	39
24	K. SUNDAR	722125405153	I BZH	29
25	K. SURYA NARAYANA	722125405069	I MPCs	30
26	K. VENKATA RAO	122125403024	I B.Com(GEN)	30
27	L. RAMESH	722125405190	I MP WEB TECH	38
28	L. VINAY KUMAR	722125405071	I MPCs	39
29	M. ANITHA	722125405113	I CBZ	30
30	M. APPANNA	122125403029	I B.Com(GEN)	ABSENT
31	M. ARUN	122125301027	I HEP	ABSENT
32	M. ASHOK	722125405117	I CBZ	ABSENT
33	M. PARVATHI	722125405165	I BZH	38
34	M. SOWMYA	722125405093	I MPC	38



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S.No	Name of the Student	Regd. No.	Group	Marks Awarded
35	M. VASANTHA KUMARI	722125405025	I MPC	36
36	O. KISHORE KUMAR	722125405077	I MPCs	35
37	P. ANASUYA	722125405173	I BZH	ABSENT
38	P. ASHOK KUMAR	122125301091	I SPL. ENG	ABSENT
39	P. BHAGYA SRI	122125301031	I HEP	ABSENT
40	P. BHAVANI	122125301135	I SPL. TEL.	40
41	P. BHUMIKA	122125301087	I SPL. ENG	45
42	P. DHILEEP	122125403033	I B.Com(GEN)	ABSENT
43	P. KEERTHI	722125405169	I BZH	ABSENT
44	P. MADHU BABU	722125405081	I MPCs	42
45	P. RAVANA	122125301139	I SPL. TEL.	41
46	P. SAI BABU	122125301035	I HEP	30
47	P. SURESH	722125405032	I MPC	ABSENT
48	P. VENKATA RAO	722125405121	I CBZ	ABSENT
49	R. ANANTHA RAO	122125301143	I SPL. TEL.	ABSENT
50	R. SAILAJA	722125405085	I MPCs	ABSENT
51	S. BHARGAVI	122125301039	I HEP	ABSENT
52	S. DAMODHAR PADAL	722125405204	I CB SEED TECH	ABSENT
53	S. MANOHAR	722125405125	I CBZ	32
54	S. PRAVEEN KUMAR	722125405035	I MPC	40
55	S. SANDHYA	122125301147	I SPL. TEL.	30
56	S. SRAVANI	122125301095	I SPL. ENG	ABSENT
57	S. SUMANTH	722125405177	I BZH	ABSENT
58	S. VARDHAN RAJU	122125301173	I MC & J	ABSENT
59	T. CHINNA RAO	722125405039	I MPC	38
60	T. MODHA VENKATA SAI KIRAN	122125301043	I HEP	32
61	T. VARUN KUMAR	722125405129	I CBZ	31
62	U. NANDHEESWARA RAO	722125405208	I CB SEED TECH	30
63	U. SRIKANTH	722125405181	I BZH	29
64	V. CHIRANJEEVI	122125301099	I SPL. ENG	30
65	V. GOWRI	722125405043	I MPC	42
66	V. JYOTHI	722125405092	I MPCs	ABSENT
67	V. KALAVATHI	722125405133	I CBZ	ABSENT
68	V. KRISHNA	122125301051	I HEP	ABSENT



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CERTIFICATE COURSE: LASER FOR FUTURE SCIENCE

COURSE END EXAMINATION MARKS STATEMENT

S.No	Name of the Student	Regd. No.	Group	Marks Awarded
69	V. PANTHULU BABU	122125301103	I SPL. ENG	32
70	V. RAJASEKHAR	122125301055	I HEP	31
71	V. RAMESH	722125405185	I BZH	33
72	V. SANDHYA RANI	122125301151	I SPL. TEL.	31
73	V. VANGAPANDU PRASAD	122125301047	I HEP	30
74	Y. ARUN	722125405047	I MPC	ABSENT

P. Ullas
(P. CHANDRA SEKHAR)

V. Chandra Sekhar

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COURSE END CERTIFICATE ISSUE REGISTER

S.No	Name of the Student	Regd. No.	Group	SIGNATURE
1	A. GOPALA RAO	722125405093	I CBZ	A. Gopala Rao
2	B. DEVAKI	722125405196	I CB SEED TECH	B. Devaki
3	B. MANI KUMARI	722125405097	I CBZ	B. mani Kumari
4	B. SAI PRAKASH	722125405002	I MPC	B. Sai Prakash
5	B. SUMITRA	722125405137	I BZH	B. Sumitra
6	CH. ANITHA	722125405006	I MPC	CH. Anitha
7	CH. TARUN	722125405141	I BZH	CH. Tarun
8	D. KAVYA	722125405052	I MPCs	D. Kavya
9	G. N. TULASI DEVI	722125405145	I BZH	G.N. Tulasi Devi
10	H. SANJAY KUMAR	722125405149	I BZH	H. Sanjay Kumar
11	J. RAJITHA	722125405056	I MPCs	J. Rajitha
12	J. SAMBA SIVA RAO	722125405101	I CBZ	J. Samba Siva Rao
13	K. ANIL KUMAR	722125405109	I CBZ	K. Anil Kumar
14	K. DEVA RAJU	722125405105	I CBZ	K. Deva Raju
15	K. KONDAMMA	722125405157	I BZH	K. Kondamma
16	K. KOTESWARARAO	122125403020	I B.Com(GEN)	K. Koteswararao
17	K. MALLESWARA RAO	722125405200	I CB SEED TECH	K. Malleswara Rao
18	K. MATYAKONDAMMA	722125405011	I MPC	K. Mathakondamma
19	K. NAGARAJU	722125405019	I MPC	K. Nagaraju
20	K. RAMA LAKSHMI	722125405161	I BZH	K. Rama Lakshmi
21	K. RANJITHA	722125405064	I MPCs	K. Ranjitha
22	K. RATNA KUMARI	722125405060	I MPCs	K. Rathakumari
23	K. RUTHAMMA	722125405015	I MPC	K. Ruthamma
24	K. SUNDAR	722125405153	I BZH	K. Sundar
25	K. SURYA NARAYANA	722125405069	I MPCs	K. Surya Narayana
26	K. VENKATA RAO	122125403024	I B.Com(GEN)	K. Venkata Rao
27	L. RAMESH	722125405190	I MP WEB TECH	L. Ramesh
28	L. VINAY KUMAR	722125405071	I MPCs	L. Vinay Kumar
29	M. ANITHA	722125405113	I CBZ	M. Anitha
30	M. PARVATHI	722125405165	I BZH	M. Parvathi
31	M. SOWMYA	722125405022	I MPC	M. Sowmya
32	M. VASANTHA KUMARI	722125405025	I MPC	M. Vasantha Kumari
33	O. KISHORE KUMAR	722125405077	I MPCs	O. Kishore Kumar
34	P. BHAVANI	122125301135	I SPL. TEL.	P. Bhavani



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COURSE END CERTIFICATE ISSUE REGISTER

S.No	Name of the Student	Regd. No.	Group	SIGNATURE
35	P. BHUMIKA	122125301087	I SPL. ENG	P. BhumiKA
36	P. MADHU BABU	722125405081	I MPCs	P. madhu Babu
37	P. RAVANA	122125301139	I SPL. TEL.	P. Ravanna
38	P. SAI BABU	122125301035	I HEP	P. Saibaba
39	S. MANOHAR	722125405125	I CBZ	S. Manohar
40	S. PRAVEEN KUMAR	722125405035	I MPC	S. praveen Kumar
41	S. SANDHYA	122125301147	I SPL. TEL.	S. Sandya
42	T. CHINNA RAO	722125405039	I MPC	T. chinna Rao
43	T. MODHA VENKATA SAI KIRAN	122125301043	I HEP	T. modha venkata saikiran
44	T. VARUN KUMAR	722125405129	I CBZ	T. Varunkumar
45	U. NANDHEESWARA RAO	722125405208	I CB SEED TECH	U. nandheeswararao
46	U. SRIKANTH	722125405181	I BZH	U. Sri Kanth
47	V. CHIRANJEEVI	122125301099	I SPL. ENG	V. Chiranjeevi
48	V. GOWRI	722125405043	I MPC	V. Gowri
49	V. PANTHULU BABU	122125301103	I SPL. ENG	P. Panthulu Babu
50	V. RAJASEKHAR	122125301055	I HEP	V. Rajasekhar
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52	V. SANDHYA RANI	122125301151	I SPL. TEL.	V. Sandya Rani
53	V. VANGAPANDU PRASAD	122125301047	I HEP	V. Vangapandur Prasad

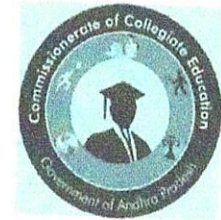
V. A

P. C. Sekhar
(P. CHANDRA SEKHAR)

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Course Completion Certificate

This is certify that _____ Redg No. _____ of Government Degree College, Paderu has completed his/her certification on "Laser for Future Science" from 01/02/2023 to 01/03/2023 organized by Department of Physics.

The overall percentage of the student of completion of certificate course is Satisfactory.

Pille
Course Coordinator

V. M.
Principal
Government Degree College
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