

RECORD OF PROJECT WORKS FOR THE YEAR 2021 - 2022

NAME OF THE LECTURER: T. Niranjan Kumar

SUBJECT: physics

S. NO	NAME OF THE STUDENT	CLASS	SEC	TOPIC
1	M. Jagadeesh	I B.Sc	B	Archimedes Principle
2	Gr. Nagendra	I B.Sc	E	Life - Technology
3	Gr. Varaha	I B.Sc	A	Impossible wind powered car
4	M. Jyothi	I B.Sc	A	Newton's laws of motion
5	y. muthyalu	II B.Sc	A	Let's Save Electricity
6	m. Venkata Ramana	II B.Sc	B	water pollution
7	A. Vasu	II B.Sc	E	Global warming
8	K. Durga	II B.Sc	A	The Industrial Revolution
9	B. Teja Kumar	III B.Sc	B	Solar Storms :
10	Ch. Gangababu	III B.Sc	B.	Air pollution
11	Gr. Divya	III B.Sc	B	Air and Ground water pollution
12	B. Gayatri	III B.Sc	A	water pollution.

RECORD OF PROJECT WORKS FOR THE YEAR 2021-2022

NAME OF THE LECTURER: DR. M. HARI BABU

SUBJECT: BOTANY

S. NO	NAME OF THE STUDENT	CLASS	SEC	TOPIC
1	A. Reshona	I CBZ	c	Plant diseases caused by Bacteria
2	A. Lahari	I CBZ	c	
3	A. Thirulaxmi	I CBZ	c	
4	G. Padma	I CBZ	c	Plant diseases caused by Bacteria
5	J. Varalakshmi	I CBZ	c	
6	K. Mounika	I CBZ	c	
7	G. Hyma	II CBZ	c	Nitrogen Metabolism
8	M. Sirisha	II CBZ	c	
9	D. Usha	II CBZ	c	
10	D. Pavani	III CBZ		Chromosome map.
11	G. Durga Bhavani	III CBZ		
12	A. Tanaki	III CBZ		



RECORD OF STUDY PROJECT FOR THE YEAR 2021 - 2022
NAME OF THE LECTURER :A .SURI BABU & K.JNYANESWARI
SUBJECT : ORGANIC CHEMISTRY, PHYSICAL CHEMISTRY, GENERAL CHEMISTRY

	NAME OF THE STUDENT	CLASS	SEC	TOPIC
	A. KONDALU	M.Sc (F)	O.C	PHOTOCHEMISTRY OF AROMATIC COMPOUNDS
	P. BAPUJI	M.Sc (F)	O.C	HYDROBORATION REACTION
	A. UMA	M.Sc (F)	O.C	H.L.F REACTION
	S. RAMMURTHY NAIDU	M.Sc (F)	O.C	ENAMINES
5	S.AMIBICA	M.Sc (F)	O.C	CARBENES AND CORBINIDS
6	Y.VASUDEVA RAO	M.Sc (F)	O.C	ORGANO SILANES
7	B.NAGARAJU	M.Sc (F)	O.C	PRICYCLIC REACTIONS
8	V. VARAHAHEMAVATHI	M.Sc (F)	O.C	COPE REARRANGEMENT
9	A. HEMALATHA	M.Sc (F)	O.C	WITTIG REACTION
10	V. GANGADHAR	M.Sc (F)	O.C	PHOTO CHEMISTRY OF CARBONYL COMPOUNDS
11	V.SIVA	M.Sc (P)	O.C	FUGACITY
12	G.SARVARAO	M.Sc (P)	O.C	DETERMINATION OF MOLECULAR WEIGHTS
13	P.PUSHPA	M.Sc (P)	O.C	EFFECT OF COMPLEXATION ON REDOX POTENTIAL
4	M.SATYAMURTHY	M.Sc (P)	O.C	SALT EFFECTS
5	U.BALA VAGDEVI	M.Sc (P)	O.C	HERMITIAN OPERATOR
6	T.UMA MAHESWARI	M.Sc (P)	O.C	PERTURBATION THEORY & ITS APPLICATIONS
	P.KOMALI	M.Sc (P)	A.C	WAVE MECHANICS FOR CONSTANT P.E
	G.BHAVANI	M.Sc (P)	A.C	MOT FOR H ₂ MOLECULE & H ₂ ⁺ ION
	K.CHAITANYA PRABHU	M.Sc (P)	A.C	FAST REACTIONS
	N.NAGESWARARAO	M.Sc (P)	A.C	C.M.C
	S.SAI	M.Sc (P)	A.C	SUPER CONDUCTIVITY
	P.PRAVALLIKA	M.Sc (P)	A.C	QUANTUM YIELD

RECORD OF PROJECT WORKS FOR THE YEAR 2021-22

NAME OF THE LECTURER: D. N. S. victor

SUBJECT: mathematics

S. N O	NAME OF THE STUDENT	CLASS	SEC	TOPIC
1	D. Jyotsna	III B.Sc	E/H	Basis
2	K. APPA Rao	III B.Sc	E/H	Linear Transformation
3	N. Venkat	III B.Sc	A/B	Inner Product Space
4	K. v. s. Kumar	III B.Sc	A/B	Cosets
5	K. mounika	II B.Sc	A/B	Groups
6	J. Hareeni	II B.Sc	E/H	Neighbourhood of Point
7	S. Mohan Rao	II B.Sc	E/H	Normal Subgroups
8	K. Kirenkumar	II B.Sc	A/B	Homomorphism groups
9	J. Thansi	III B.Sc	E/H	Zero divisors of a ring
10	S. Bhaskar Rao	II B.Sc	A/B	Cauchy's nth root test
11	G. Venkate Ramana	II B.Sc	E/H	Sequence
12	U. Divya	II B.Sc	E/H	Subgroup

RECORD OF PROJECT WORKS FOR THE YEAR 2021-2022

NAME OF THE LECTURER: N. shyamala

SUBJECT: chemistry

S. N O	NAME OF THE STUDENT	CLASS	SEC	TOPIC
1	P. Tulasi	III rd B.Sc	C	Thermodynamics
2	B. pushpa Latha	III rd B.Sc	C	Carnot cycle
3	Y. Syamala	III rd B.Sc	C	Joule-Thomson effect
4	B. Sivaji	III rd B.Sc	A	Kirchoffs Law
5	R. Kamala	I st B.Sc	A	Heat capacity
6	K. Varalaxmi	III rd B.Sc	C	Kirchoffs Law
7	M. nareesh	III rd B.Sc	C	Joule-Thomson effect
8	M. Narsinga Rao	III rd B.Sc	C	Thermodynamics
9	P. Varshini	III rd B.Sc	C	Heat capacity
10	P. Ramma Lakshmi	I st B.Sc	C	Carnot cycle
11	K. Swarna Bharathi	III rd B.Sc	B	Kirchoffs law
12	S. Srinivasa Rao	I st B.Sc	A	pseudo halogens

RECORD OF ACADEMIC COMPETITIONS FOR THE YEAR 2021-2022

NAME OF THE LECTURER: D. W. J. VICTOR
J. SAMBRATYAM, D. Jagadeeswara Rao

SUBJECT: Mathematics (QUIZ)

S. N O	CLASS	SECTION	DATE	TOPIC
1	I B.Sc	A, B, E & H	14/3/22	Differential Equations
2	II B.Sc	A, E & H	31/03/22	Abstract Algebra
3	III Bsc	A, B, E & H	11/12/21	Linear Algebra
4				
5				
6				
7				

RECORD OF ACADEMIC COMPETITIONS FOR THE YEAR 201 - 1

NAME OF THE LECTURER: D.W.J. Victor
J. SAMBRATYAM

SUBJECT: Mathematics (Quiz)

S. N O	CLASS	SECTION	DATE	TOPIC
1	I B.Sc	A,B,E&H	25/11/21	Three Dimensional Analytical solid Geometry
2	III B.Sc	A,B,E&H	26/03/22	Integral transform

A.M.A.L COLLEGE

(Anakapalli)

(QUIZ) LINEAR ALGEBRA

Q1. If $V(F)$ is a vector space and $0 \neq a \in F, \alpha, \beta \in V, a\alpha = a\beta$ then

- (a) $a = \alpha$ (b) $a = \beta$ (c) $\alpha = \beta$ (d) none

Q2. The necessary and sufficient condition for a non empty subset ω of a vector space $V(F)$ to be a subspace of V is $a, b \in F, \alpha, \beta \in \omega$

- (a) $a\alpha + b\beta \in V$ (b) $a\alpha + b\beta \in \omega$
(c) $a\alpha + b\beta \in V$ (d) $a\alpha + b\beta \in \omega$

Q3. Let w_1 and w_2 be two subspaces of a vector space $V(F)$. Then $w_1 \cup w_2$ is also a subspace of $V(F)$ if

- (a) $w_1 \cup w_2 = w_1$ (b) $w_1 \cup w_2 = w_2$
(c) $w_1 \leq w_2$ or $w_2 \leq w_1$ (d) none

Q4. If $\alpha = (1, -2, 5), \alpha_1 = (1, 1, 1), \alpha_2 = (1, 2, 3), \alpha_3 = (2, -1, 1)$ then

- (a) $\alpha = 6\alpha_1 - 3\alpha_2 + 2\alpha_3$ (b) $\alpha = 6\alpha_1 + 3\alpha_2 - 2\alpha_3$
(c) $\alpha = -6\alpha_1 + 3\alpha_2 + 2\alpha_3$ (d) $\alpha = 6\alpha_1 - 3\alpha_2 - 2\alpha_3$

Q5. If S is a nonempty subset of a vector space $V(F)$ then S is a subspace of $V(F) \leftrightarrow$

- (a) $S \leq L(S)$ (b) $L(S) = S$ (c) $L(S) \neq S$ (d) none

Q6. The vectors $(1, 2, 0), (0, 3, 1), (-1, 0, 1)$ of $V_3(\mathbb{R})$ are

- (a) Linearly dependent
(b) Linearly independent
(c) either linearly dependent or Linearly independent
(d) neither linearly dependent or Linearly independent

Q7. If $(1, K, 5)$ is a Linear combination of $(1, -3, 2), (2, -1, 1)$ in $V_3(\mathbb{R})$ then $K =$

- (a) 5 (b) 8 (c) -5 (d) -8

Q8. The standard basis of $V_3(F)$ is

- (a) $\{(1, 0, 0), (0, 1, 0), (0, 0, 1)\}$ (b) $\{(1, 0, 0), (1, 1, 0), (1, 1, 1)\}$
(c) $\{(1, 1, 1), (2, 1, 0), (3, 0, 0)\}$ (d) $\{(1, 0, 0), (1, 0, 1), (0, 1, 1)\}$

A.M.A.L COLLEGE
(Anakapalli)

(QUIZ) Group Theory

Q1. For $a, b, c \in G$ $(abc)^{-1} =$ []

- (a) $a^{-1}b^{-1}c^{-1}$ (b) cba (c) $c^{-1}b^{-1}a^{-1}$ (d) $(ab)^{-1}c^{-1}$

Q2. If in a group a is an element of order 5 and x is an element of order 2 then x^{-1} is an element of order []

- (a) 5 (b) 2 (c) 7 (d) 10

Q3. The invers of the permutation $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 3 & 1 & 2 & 5 & 4 \end{pmatrix}$ is []

(a) $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 3 & 5 & 4 & 1 \end{pmatrix}$ (b) $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 3 & 1 & 5 & 4 \end{pmatrix}$

(c) $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 3 & 5 & 1 & 4 \end{pmatrix}$ (d) $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 5 & 3 & 1 & 4 \end{pmatrix}$

Q4. H and K are two subgroups of a group $(G, \cdot)$ then []

(a) $H \cap K$ is a subgroup of $(G, \cdot)$

(b) $H \cup K$ is a subgroup of $(G, \cdot)$

(c) HK is a subgroup of $(G, \cdot)$

(d) $(HK)^{-1}$ is a subgroup of $(G, \cdot)$

Q5. In any group G the number of identity element is []

- (a) 2 (b) 1 (c) 0 (d) infinite

Q6. For any a in a group G $(a^{-1})^{-1}$ is = []

- (a) a (b) a^2 (c) e (d) e^{-1}

RECORD OF ACADEMIC COMPETITIONS FOR THE YEAR 2021-2022
 NAME OF THE LECTURER: T. Niyamjam Kumar
 SUBJECT: PHYSICS (quiz)

S. NO	CLASS	SECTION	DATE	TOPIC
1	IB.Sc	B	23-9-2021	mechanics of particles & Rigid bodies
2	IB.Sc	A	25-9-2021	motion in a central force
3	IB.Sc	E	28-9-2021	mechanics of particles & motion in a central force.
4	II B.Sc	A	05-10-2021	Abraction and fiber optics.
5	II B.Sc	B	07-10-2021	Lasers and Holography
6	II B.Sc	E	09-10-2021	Lasers and fiber optics.
7	III B.Sc	A	23-11-2021	General physics questions.
8	III B.Sc	B.	26-11-2021	AUCET Related physics questions.
	III B.Sc	E	29-11-2021	AUCET Related physics questions.

A.M.A.L COLLEGE, ANAKAPALLE
(QUIZ)
LASERS AND ABRIATION

(1) Which of the following can be used in a vibrational analysis of structure?

- [A] Laser
- [B] Maser
- [C] Quarts
- [D] Electrical waves

Answer: Laser

(2) Which of the following is used in atomic clocks?

- [A] Laser
- [B] Quartz
- [C] Maser
- [D] Helium

Answer: Maser

(3) What is the need to achieve population inversion?

- [A] To excite most of the atoms
- [B] To bring most of the atoms to ground state
- [C] To achieve stable condition
- [D] To reduce the time of production of laser

Answer: To excite most of the atoms

(4) Which of the following can be used for generation of laser pulse?

- [A] Ruby laser
- [B] Carbon dioxide laser
- [C] Helium neon laser
- [D] Nd- YAG laser

Answer: Nd- YAG laser

A.M.A.L. COLLEGE, ANAKAPALLE
Merit List Quiz 2021-2022

S.No.	Name of the Student	Class	Section	Marks	Rank
1	P. Harika	I B.Sc	H	15/15	1
2	G. Rohini	I B.Sc	E	14/15	2
3	K. Padma	I B.Sc	H	14/15	3
4	B. Ramya	III B.Sc	A	08/13	1
5	R. Durga	III B.Sc	E	07/13	2
6	M. Rama Kumar	III B.Sc	B	07/13	3
7					
8					
9					

A.M.A.L COLLEGE, ANAKAPALLE
(QUIZ)
AUCET AND GENERAL PHYSICS QUESTIONS

(1) The far point of a myopic person is 40 cm. What should be the power of the lens that he must use to see clearly?

- a) -0.4 D
- b) +0.4 D
- c) -2.5 D
- d) +2.5 D

(2) If the magnification of a lens is dependent on the distance from the principal axis, the aberration that arises is called _____

- a) Coma
- b) Astigmatism
- c) Curvature
- d) Distortion

(3) The refractive index of a Plano-convex lens is 1.6 for violet and 1.5 for red light. The radius of curvature is 0.20 cm. The separation between violet and red foci of the lens is _____

- a) 0.05 cm
- b) 0.06 cm
- c) 0.07 cm
- d) 0.08 cm

[View Answer](#)

(4) The component in an optical instrument used to increase the angular object field and to minimize aberrations is called as _____

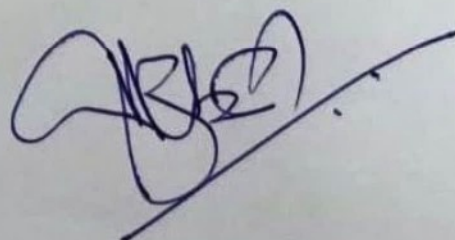
- a) Objective lens
- b) Eye lens
- c) Field Lens
- d) Plano-concave lens

RECORD OF STUDENT SEMINARS FOR THE YEAR 2021-22

NAME OF THE LECTURER: DR. M. HARI BABU

SUBJECT: BOTANY

S. N O	NAME OF THE STUDENT	CLASS	SEC	DATE	TOPIC
1	A. Ganga Raju	III CB2	'C'	14/6/21	Cell cycle and cell Division
2	D. pavani	III CB2	'C'	16/6/21	Mendelian Inheritance
3	G. Chandra - Lekha	III CB2	'C'	14/6/21	Methods of crop Improvement
4	K. Jagadeeswari	III CB2	'C'	14/6/21	Molecular Breeding
5	L. Madhuri	III CB2	'C'	18/6/21	Nursery
6	M. Divakar	III CB2	'C'	18/6/21	Floriculture
7	G. Vinay	II CB2	'C'	9/9/22	C ₃ and C ₄ cycles
8	G. Hyma	II CB2	'C'	16/9/22	Photorespiration.
9	K. Jagadeesh Kumar	II CB2	'C'	16/9/22	Asteraceae family characters
10	P. Ramya	II CB2	'C'	19/9/22	Different types of endosperm
11	A. Rajkumar	II CB2	'C'	23/9/22	Plant and water relations
12	S. Saikumar	II CB2	'C'	23/9/22	classification of enzymes
13	M. Navya Mounika	I CB2	'C'	25/2/22	Stelar evolution of pteridophytes



RECORD OF STUDENT SEMINARS FOR THE YEAR 2021 - 2022
NAME OF THE LECTURER : R . LEELAVATHI , R.JYOTHI
SUBJECT : ANALYTICAL CHEMISTRY & ORGANIC CHEMISTRY

S.NO	NAME OF THE STUDENT	CLASS	SEC	DATE	TOPIC
1	M APPALAKONDA	M.Sc (F)	A.C	01-10-2021	Q.C & Q.A
2	K.ARUN KUMAR	M.Sc (F)	A.C	01-10-2021	CHEMISTRY IN EVERY DAY LIFE
3	V.BALAJI	M.Sc (F)	A.C	01-10-2021	ENVIRONMENTAL CHEMISTRY
4	G.BHAVANI	M.Sc (F)	A.C	01-10-2021	NMR SPECTROSCOPY
5	K.PHANI	M.Sc (F)	A.C	08-10-2021	CHEMISTRY BEHIND ACID RAINS
6	E.NOOKESH	M.Sc (F)	A.C	08-10-2021	IRON ORE ANALYSIS
7	D.ARUN KUMAR	M.Sc (F)	A.C	09-10-2021	FERTILIZER ANALYSIS
8	V.DURGA PRASAD	M.Sc (F)	A.C	09-10-2021	BASICS OF CHROMATOGRAPHY
9	G.BHUVANESWARARAO	M.Sc (F)	A.C	29-10-2021	TYPES OF CHEMISTRY
10	P.SAI HARSHA KUMAR	M.Sc (F)	A.C	29-10-2021	BHOPAL GAS TRAGEDY
11	CH.DIWAKAR	M.Sc (F)	A.C	30-10-2021	CHEMISTRY BEHIND PLASTICS
12	K.DEVI	M.Sc (F)	A.C	05-11-2021	DRUGS IN CHEMISTRY
13	P.SAI KUMAR	M.Sc (F)	A.C	05-11-2021	ROLE OF CHEMISTRY
14	A.SEKHAR	M.Sc (F)	A.C	06-11-2021	ELECTRO CHEMISTRY
15	B.RAM SAI	M.Sc (F)	A.C	06-11-2021	CHEMISTRY IN EVERY DAY LIFE
16	G.JAGADEESWARI	M.Sc (F)	A.C	12-11-2021	GAS CHROMATOGRAPHY
17	P.KINNERA	M.Sc (F)	A.C	12-11-2021	ENVIRONMENTAL POLLUTION
18	R.MANI	M.Sc (F)	A.C	19-11-2021	BIOMOLECULES
19	S.RAJESH	M.Sc (F)	A.C	19-11-2021	ANALYSIS OF WATER
20	K.DHANA LAKSHMI	M.Sc (F)	A.C	20-11-2021	ORGANIC FARMING
21	P.BAPUJI	M.Sc (F)	O.C	01-10-2021	IR SPECTROSCOPY OF ALKANES, ALKENES, ALKYNES
22	K.DURGAPRASAD	M.Sc (F)	O.C	01-10-2021	FREE RADICAL SUBSTITUTION REACTIONS
23	S.AMBICA	M.Sc (F)	O.C	08-10-2021	FORMATION OF C-C SINGLE BOND
24	S.ABALA SAI KRISHNA	M.Sc (F)	O.C	08-10-2021	CFSE IN OCTAHEDRAL AND SQUARE PLANAR.
25	M.BHARATHI	M.Sc (F)	O.C	09-10-2021	BRAGGS EQUATION
26	K.DURGAPRASAD	M.Sc (F)	O.C	09-10-2021	NOMENCLATURE OF DRUGS
27	V.GANGADHAR	M.Sc (F)	O.C	29-10-2021	INDIAN AGRICULTURE SYSTEM
28	A.HEMALATHA	M.Sc (F)	O.C	29-10-2021	CHEMICAL SHIFT AND ITS FACTORS
29	U.JAGANNADHA RAO	M.Sc (F)	O.C	30-10-2021	TYPES OF CHEMISTRY
30	M.KOMALI	M.Sc (F)	O.C	30-10-2021	FOOD ADULTRATION
31	A.KONDALU	M.Sc (F)	O.C	06-11-2021	NMR SPECTROSCOPY
32	M.KOMALI	M.Sc (F)	O.C	06-11-2021	BHOPAL GAS TRAGEDY

P. L

RECORD OF STUDENT SEMINARS FOR THE YEAR 2021 - 2022.

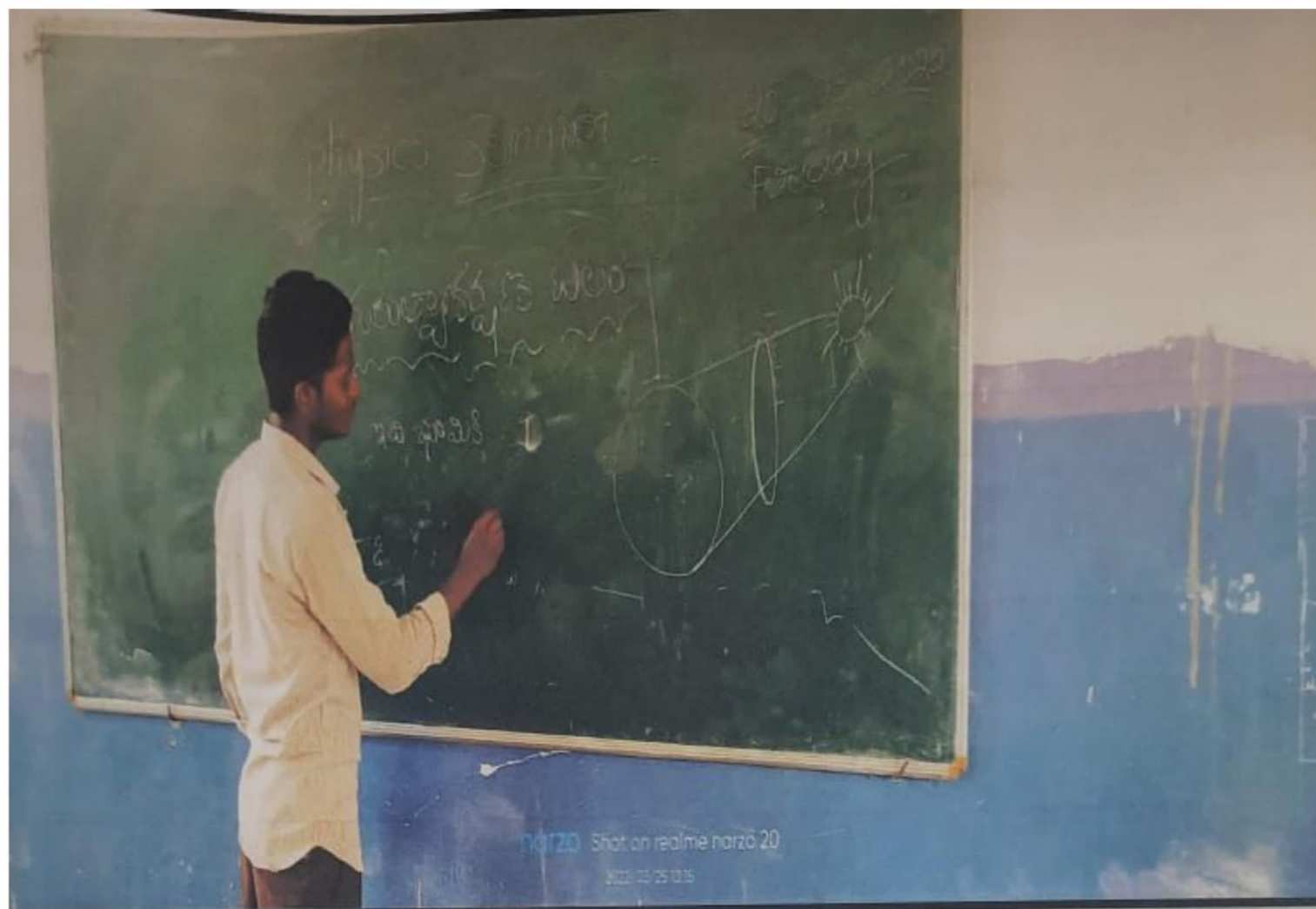
NAME OF THE LECTURER: T. Niranjan Kumar.

SUBJECT: physics

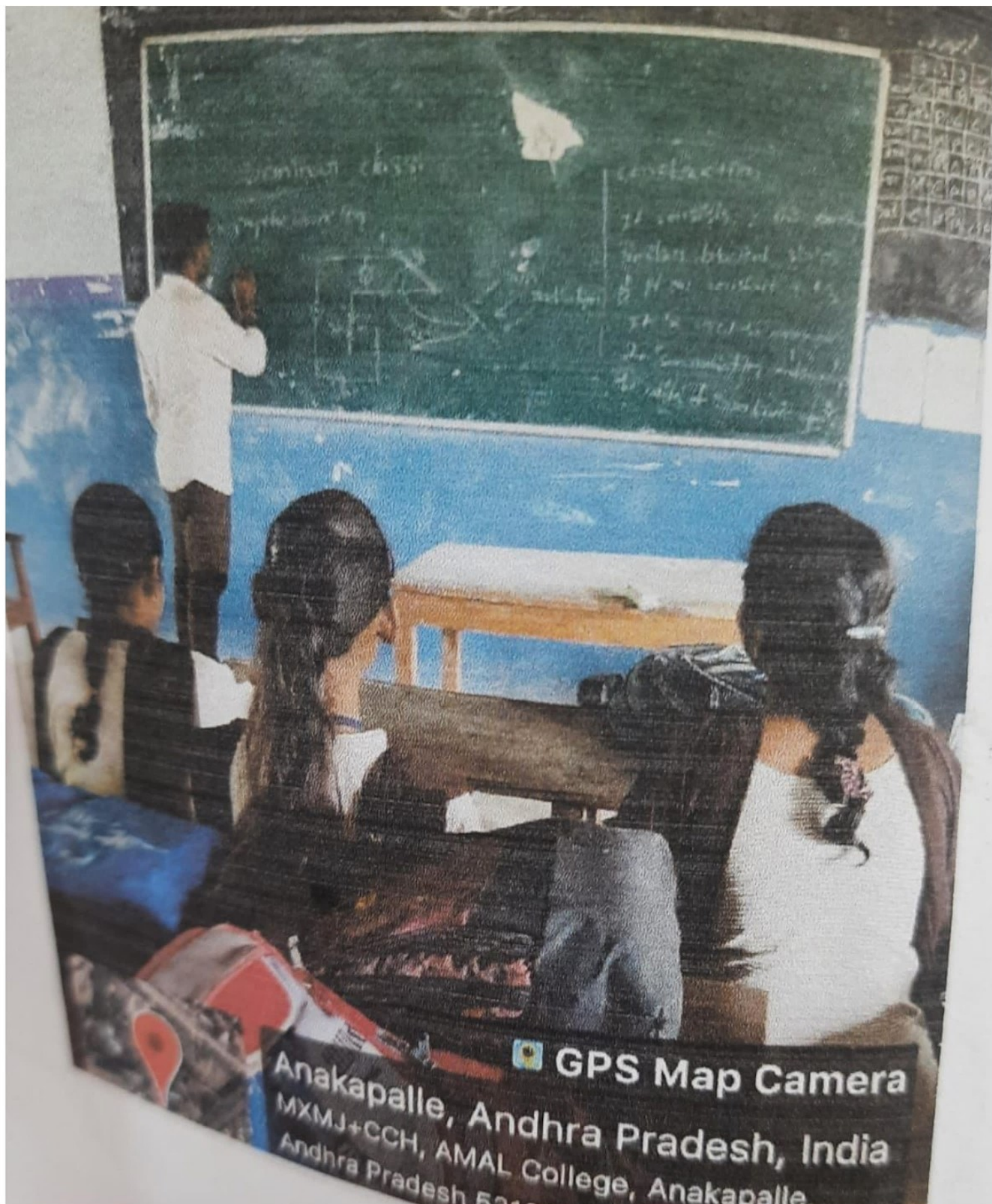
S. NO	NAME OF THE STUDENT	CLASS	SEC	DATE	TOPIC
1	ch. Nanibabu	IBSc	A	26-11-2021	Sonors
2	R. Rajeswari	IB.Sc	A	27-11-2021	Newton's laws of motion
3	Y. Hema	IB.Sc	E	29-11-2021	Gyroscope
4	S. mohan	IB.Sc	B	2-12-2021	optical fiber
5	P. yuvakiran	IB.Sc	E	6-12-2021	photo electric effect
6	ch. Venkatsai oileep	IB.Sc	E	7-12-2021	coma aberration
7	J. Niharika.	IB.Sc	A	8-12-2021	Lasers
8	K. mamatha	IB.Sc	B.	10-12-2021	Holography.
9	P.B.S Lakshmi	IB.Sc	E	10-12-2021	Fuel cell
10	K. Kiran	IB.Sc	B	11-12-2021	Aerodynamic design principle
11	A. Umamahes -wari	IB.Sc	A	13-12-2021	Gravitation
12	S. usha Rani	IB.Sc	E	24-11-2021	Laser
15	B. Vamsi	IB.Sc	B.	25-11-2021	wind energy.











 **GPS Map Camera**
Anakapalle, Andhra Pradesh, India
MXMJ+CCH, AMAL College, Anakapalle,
Andhra Pradesh 521001











