ODD SEM-2023-24

SHRIDEVI EDUCATION	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

Department of Physics

Course Outcomes and COs-POs Mapping

Batch 2023-24

Semester – I

Subject: Applied Physics for CS Stream		**Subject Code:** BPHYS102
Course Outcomes		
CO1	Describe the principles of LASERS and Optical fibers and their relevant applications.	
CO2	Discuss the basic principles of the Quantum Mechanics and its application in Quantum Computing.	
CO3	Summarize the essential properties of superconductors and its applications in qubits.	
CO4	Illustrate the application of physics in design and data analysis.	
CO5	Practice working in groups to conduct experiments in physics and perform precise and honest measurements.	

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY				
FACULTY NAME	Dr SADASHIVAIAHA P J / DERA PUSHPALATHA H				
BRANCH	CS	ACADEMIC YEAR	2023-24		
COURSE	B.E	SEMESTER	I	SECTION	A & B
SUBJECT	APPLIED PHYSICS FOR CSE STREAM	SUBJECT CODE	BPHYS102		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2										2
CO2	3	3										2
CO3	3	3										2
CO4	3	2	1		1							2
CO5	3	2	1		2			3	3			2
AVERAGE	3	2.4	1		1.5			3	3			2
OVERALL MAPPING OF SUBJECT												2.27

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	59.44	1.78	1.19										1.19
CO2	74.15	2.22	2.22										1.48
CO3	43.76	1.31	1.31										0.87
CO4	66.32	1.99	1.33	0.66		0.66							1.33
CO5	88.39	2.65	1.77	0.88		1.77			2.65	2.65			1.77
AVERAGE	66.41	1.99	1.56	0.77		1.21			2.65	2.65			1.33
FINAL ATTAINMENT LEVEL													1.74

FACULTY

HOD

H.O.D
Dept. of Physics
S.I.E.T., TUMKUR -6.

PRINCIPAL
S.I.E.T. TUMKUR

SEM: I	Total Strength			122			Course:		Applied Physics for CSE Stream					BPHYS102						2023-2024									
SEC: A&B	IA TEST 1			IA TEST 2			IA TEST 3					PRACTICAL COMPONENT (25)	ASSIGNEMENT (10M)				SEE MARKS(50)				Total Cos ATTAINMENT					% of Individual CO				
USN	CO2	CO3	TOTAL	CO2	CO3	TOTAL	CO2	CO3	CO1	CO4	TOTAL	CO5	CO1	CO2	CO3	CO4	CO1	CO2	CO3	CO4	CO1=35	CO2=75	CO3=75	CO4=35	CO5=25	CO1	CO2	CO3	CO4	CO5
1SV23CS001	12	8	20	20	4	24	20		11	12	43	23	2.5	2.5	2.5	2.5	5.75	5.75	5.75	5.75	19.25	60.25	20.25	20.25	23	55	80.33333	27	57.85714	92
1SV23CS002	17	4	21	16	11	27	20		20	11	51	22	2.5	2.5	2.5	2.5	6.5	6.5	6.5	6.5	29	62	24	20	22	82.857143	82.66667	32	57.14286	88
1SV23CS003	15	6	21	16	16	32	20		19	8	47	15	2.5	2.5	2.5	2.5	2.75	2.75	2.75	2.75	24.25	56.25	27.25	13.25	15	69.285714	75	36.33333	37.85714	60
1SV23CS004	18	20	38	20	20	40	20		18	19	57	25	2.5	2.5	2.5	2.5	12	12	12	12	32.5	72.5	54.5	33.5	25	92.857143	96.66667	72.66667	95.71429	100
1SV23CS005	14	9	23	14	12	26	17		20	12	49	23	2.5	2.5	2.5	2.5	9.5	9.5	9.5	9.5	32	57	33	24	23	91.428571	76	44	68.57143	92
1SV23CS006	16	18	34	16	18	34	18		20	15	53	22	2.5	2.5	2.5	2.5	5.25	5.25	5.25	5.25	27.75	57.75	43.75	22.75	22	79.285714	77	58.33333	65	88
1SV23CS007	14	14	28	14	20	34	16		14	13	43	23	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	24	54	44	23	23	68.571429	72	58.66667	65.71429	92
1SV23CS008	1	1	2	16	9	24	0		17	20	37	23	2.5	2.5	2.5	2.5	5	5	5	5	24.5	24.5	17.5	27.5	23	70	32.66667	23.33333	78.57143	92
1SV23CS009	18	14	32	20	15	35	20		18	11	49	24	2.5	2.5	2.5	2.5	11.25	11.25	11.25	11.25	31.75	71.75	42.75	24.75	24	90.714286	95.66667	57	70.71429	96
1SV23CS010	17	19	36	18	20	38	18		18	18	54	24	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	28	63	49	28	24	80	84	65.33333	80	96
1SV23CS011	4	2	6	12	1	13	8		11	6	35	15	2.5	2.5	2.5	2.5	2.75	2.75	2.75	2.75	16.25	29.25	8.25	11.25	15	46.428571	39	11	32.14286	60
1SV23CS012	14	4	18	20	0	20	18		0	16	34	21	2.5	2.5	2.5	2.5	6.75	6.75	6.75	6.75	9.25	61.25	13.25	25.25	21	26.428571	81.66667	17.66667	72.14286	84
1SV23CS013	13	7	20	8	2	10	19		9	0	28	20	2.5	2.5	2.5	2.5	5.25	5.25	5.25	5.25	16.75	47.75	16.75	7.75	20	47.857143	63.66667	22.33333	22.14286	80
1SV23CS014	12	1	13	12	9	21	16		1	2	19	19	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	8	47	17	9	19	22.857143	62.66667	22.66667	25.71429	76
1SV23CS015	12	4	16	19	12	31	20		10	16	46	25	2.5	2.5	2.5	2.5	8.25	8.25	8.25	8.25	20.75	61.75	26.75	26.75	25	59.285714	82.33333	35.66667	76.42857	100
1SV23CS016	9	9	18	18	4	22	20		11	13	45	24	2.5	2.5	2.5	2.5	7.25	7.25	7.25	7.25	20.75	56.75	22.75	22.75	24	59.285714	75.66667	30.33333	65	96
1SV23CS017	15	8	23	20	20	40	20		18	10	48	23	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	29	66	39	21	23	82.857143	88	52	60	92
1SV23CS018	20	16	36	20	20	40	20		20	20	60	25	2.5	2.5	2.5	2.5	10	10	10	10	32.5	72.5	48.5	32.5	25	92.857143	96.66667	64.66667	92.85714	100
1SV23CS019	20	18	38	19	20	39	20		18	0	38	22	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	28	69	48	10	22	80	92	64	28.57143	88
1SV23CS020	20	20	40	20	16	36	20		19	20	59	24	2.5	2.5	2.5	2.5	10.5	10.5	10.5	10.5	32	73	49	33	24	91.428571	97.33333	65.33333	94.28571	96
1SV23CS021	19	20	39	20	20	40		18	19	20	57	24	2.5	2.5	2.5	2.5	9.25	9.25	9.25	9.25	30.75	50.75	69.75	31.75	24	87.857143	67.66667	93	90.71429	96
1SV23CS022	9	2	11	16	10	26	17		8	6	31	23	2.5	2.5	2.5	2.5	7.75	7.75	7.75	7.75	18.25	52.25	22.25	16.25	23	52.142857	69.66667	29.66667	46.42857	92
1SV23CS023	7	6	13	17	12	29	17		16	14	47	17	2.5	2.5	2.5	2.5	3.25	3.25	3.25	3.25	21.75	46.75	23.75	19.75	17	62.142857	62.33333	31.66667	56.42857	68
1SV23CS024	16	9	25	20	4	24	20		13	6	39	16	2.5	2.5	2.5	2.5	7	7	7	7	22.5	65.5	22.5	15.5	16	64.285714	87.33333	30	44.28571	64
1SV23CS025	17	14	31	12	14	26	16		16	5	37	18	2.5	2.5	2.5	2.5	8	8	8	8	26.5	55.5	38.5	15.5	18	75.714286	74	51.33333	44.28571	72
1SV23CS026	17	13	30	16	20	36		18	18	12	48	20	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	28	43	61	22	20	80	57.33333	81.33333	62.85714	80
1SV23CS027	2	2	4	4	2	6	18		12	13	43	19	2.5	2.5	2.5	2.5	2.75	2.75	2.75	2.75	17.25	29.25	9.25	18.25	19	49.285714	39	12.33333	52.14286	76
1SV23CS028	20	20	40	20	20	40	20		16	20	56	25	2.5	2.5	2.5	2.5	8.25	8.25	8.25	8.25	26.75	70.75	50.75	30.75	25	76.428571	94.33333	67.66667	87.85714	100
1SV23CS029	11	10	21	20	20	40	20		8	20	48	25	2.5	2.5	2.5	2.5	6.5	6.5	6.5	6.5	17	60	39	29	25	48.571429	80	52	82.85714	100
1SV23CS030	10	16	26	18	11	29	20		6	20	46	23	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	16	58	37	30	23	45.714286	77.33333	49.33333	85.71429	92
1SV23CS031	15	19	34	19	12	31	20		10	20	50	23	2.5	2.5	2.5	2.5	5.5	5.5	5.5	5.5	18	62	39	28	23	51.428571	82.66667	52	80	92
1SV23CS032	8	3	11	17	12	29	16		7	15	38	23	2.5	2.5	2.5	2.5	5.25	5.25	5.25	5.25	14.75	48.75	22.75	22.75	23	42.142857	65	30.33333	65	92
1SV23CS033	16	7	23	20	19	39	20		8	11	39	22	2.5	2.5	2.5	2.5	7.75	7.75	7.75	7.75	18.25	66.25	36.25	21.25	22	52.142857	88.33333	48.33333	60.71429	88
1SV23CS034	19	12	31	20	18	38	20		8	20	48	23	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	19	70	41	31	23	54.285714	93.33333	54.66667	88.57143	92
1SV23CS035	17	20	37			A	9		0	16	25	19	2.5	2.5	2.5	2.5	5.5	5.5	5.5	5.5	8	34	28	24	19	22.857143	45.33333	37.33333	68.57143	76
1SV23CS036	19	20	39	20	20	40	20		20	20	60	25	2.5	2.5	2.5	2.5	10.75	10.75	10.75	10.75	33.25	72.25	53.25	33.25	25	95	96.33333	71	95	100
1SV23CS037	3	9	12	20	12	32	20		0	19	39	25	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	11	54	32	30	25	31.428571	72	42.66667	85.71429	100
1SV23CS038	14	9	23	20	4	24	11		4	16	31	23	2.5	2.5	2.5	2.5	4.75	4.75	4.75	4.75	11.25	52.25	20.25	23.25	23	32.142857	69.66667	27	66.42857	92
1SV23CS039	6	14	20	16	18	34		17	20	9	46	19	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	27	29	56	16	19	77.142857	38.66667	74.66667	45.71429	76
1SV23CS040	16	13	29	20	20	40	20		19	20	59	25	2.5	2.5	2.5	2.5	11	11	11	11	32.5	69.5	46.5	33.5	25	92.857143	92.66667	62	95.71429	100
1SV23CS041	16	14	30	19	20	39	20		11	20	51	24	2.5	2.5	2.5	2.5	10	10	10	10	23.5	67.5	46.5	32.5	24	67.142857	90	62	92.85714	96
1SV23CS042	16	17	33	20	19	39		16	20	18	54	23	2.5	2.5	2.5	2.5	10.25	10.25	10.25	10.25	32.75	48.75	64.75	30.75	23	93.571429	65	86.33333	87.85714	92
1SV23CS043	20	20	40	20	18	38	20		20	20	60	24	2.5	2.5	2.5	2.5	9.75	9.75	9.75	9.75	32.25	72.25	50.25	32.25	24	92.142857	96.33333	67	92.14286	96
1SV23CS044	16	19	35	20	15	35	19		18	18	55	25	2.5	2.5	2.5	2.5	10.75	10.75	10.75	10.75	31.25	68.25	47.25	31.25	25	89.285714	91	63	89.28571	100
1SV23CS045	1	2	3	16	4	20	16		15	2	33	19	2.5	2.5	2.5	2.5	6.75	6.75	6.75	6.75	24.25	42.25	15.25	11.25	19	69.285714	56.33333	20.33333	32.14286	76
1SV23CS046	16	16	32	20	2	22	20		0	14	34	25	2.5	2.5	2.5	2.5	9.25	9.25	9.25	9.25	11.75	67.75	29.75	25.75	25	33.571429	90.33333	39.66667	73.57143	100
1SV23CS047	20	20	40	20	20	40	20		20	20	60	25	2.5	2.5	2.5	2.5	11.75	11.75	11.75	11.75	34.25	74.25	54.25	34.25	25	97.857143	99	72.33333	97.85714	100
1SV23CS048	18	6	24	19	20	39	20		0	0	20	23	2.5	2.5	2.5	2.5	9.25	9.25	9.25	9.25	11.75	68.75	37.75	11.75	23	33.571429	91.66667	50.33333	33.57143	92
1SV23CS049	5	1	6	12	7	19	18		0	0	18	16	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	11	46	19	11	16	31.428571	61.33333	25.33333	31.42857	64
1SV23CS050	1	0	1	11	3	14	6		2	3	11	9	2.5	2.5	2.5	2.5	1.25	1.25	1.25	1.25	5.75	21.75	6.75	6.75	9	16.428571	29	9	19.28571	36
1SV23CS051	18	11	29	19	20	39	20		18	20	58	25	2.5	2.5	2.5	2.5	9.5	9.5	9.5	9.5	30	69	43	32	25	85.714286	92	57.33333	91.42857	100
1SV23CS052	0	0	0	8	5	13	20		16	0	36	16	2.5	2.5	2.5	2.5	2.25	2.25	2.25	2.25	20.75	32.75	9.75	4.75	16	59.285714	43.66667	13	13.57143	64
1SV23CS053	18	13	31	20	20	40	20		19	20	59	25	2.5	2.5	2.5	2.5	11	11	11	11	32.5	71.5	46.5	33.5	25	92.857143	95.33333	62	95.71429	100
1SV23CS054	9	17	26	16	20	36	16		19	20	55	23	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	29	51	47	30	23	82.857143	68	62.66667	85.71429	92
1SV23CS055	20	3	23	10	1	11	18		5	4	27	19	2.5	2.5	2.5	2.5	5.5	5.5	5.5	5.5	13	56	12	12	19	37.142857	74.66667	16	34.28571	76
1SV23CS056	18	18	36	20	20	40		16	10	20	46	25	2.5	2.5	2.5	2.5	8.25	8.25	8.25	8.25	20.75	48.75	64.75	30.75	25	59.285714	65	86.33333	87.85714	100
1SV23CS057	15	1	16	5	4	9	12		12	0	24	22	2.5	2.5	2.5	2.5	4.75	4.75	4.75	4.75	19.25	39.25	12.25	7.25	22	55	52.33333	16.33333	20.71429	88
1SV23CS058	17	14	31	20	12	32	20		11	16	47	25	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	22	68	37	27	25	62.857143	90.66667	49.33333	77.14286	100
1SV23CS059	18	18	36	20	18	38	20		20	20	60	25	2.5	2.5	2.5	2.5	9.5	9.5	9.5	9.5	32	70	48	32	25	91.428571	93.33333	64	91.42857	100
1SV23CS060	2	0	2	12	2	14	7		5	20	35	23	2.5	2.5	2.5	2.5	2.25	2.25	2.25	2.25	9.75	25.75	6.75	24.75	23	27.857143	34.33333	9	70.71429	92
1SV23CS061	20	20	40	19	12	31	20		3	3	26	22	2.5	2.5	2.5	2.5	6.75	6.75	6.75	6.75	12.25	68.25	41.25	12.25	22	35	91	55	35	88
1SV23CS062	10	17	27	20	12	32					A	22	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	11	41	40	11	22	31.428571	54.66667	53.33333	31.42857	88
1SV23CS063	19	14	33	17	19	36	20		16	20	56	25	2.5	2.5	2.5	2.5	9.25	9.25	9.25	9.25	27.75	67.75	44.75	31.75	25	79.285714	90.33333	59.66667	90.71429	100
1SV23CS064			A	19	12	31	17		4	0	21	22	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	14	46	22	10	22	40	61.33333	29.33333	28.57143	88
1SV23CS065	11	1	12	20	9	29	20		4	10	34	23	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	11	58	17	17	23	31.428571	77.33333	22.66667	48.57143	92
1SV23CS066	6	17	23	19	20	39	20		10	20	50	25	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	21	56	48	31	25	60	74.66667	64	88.57143	100
1SV23CS067	0	0	0	13	2	15	16		7	4	27	16	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	14	36	9	11	16	40	48	12	31.42857	64
1SV23CS068	20	20	40	12	14	26	20		18	20	58	25	2.5	2.5	2.5	2.5	9.75	9.75	9.75	9.75	30.25	64.25	46.25	32.25	25	86.428571	85.66667	61.66667	92.14286	100
1SV23CS069	20	20	40	20	20	40	20		14	20	54	25	2.5	2.5	2.5	2.5	10.25	10.25	10.25	10.25	26.75	72.75	52.75	32.75	25	76.428571	97	70.33333	93.57143	100
1SV23CS070	8	10	18	17	20	37	20		8	20	48	23	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	18	55	40	30	23	51.428571	73.33333	53.33333	85.71429	92
1SV23CS071	17	16	33	20	20	40	20		20	20	60	23	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	31	68	47	31	23	88.571429	90.66667	62.66667	88.57143	92

1SV23CS072	2	2	4	10	16	26	16		8	17	41	25	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	19	39	29	28	25	54.285714	52	38.66667	80	100
1SV23CS073	20	2	22	8	1	9	16		0	13	29	13	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	7	51	10	20	13	20	68	13.33333	57.14286	52
1SV23CS074	10	2	12	20	5	25	20		0	13	33	23	2.5	2.5	2.5	2.5	5	5	5	5	7.5	57.5	14.5	20.5	23	21.428571	76.66667	19.33333	58.57143	92
1SV23CS075	14	4	18	20	12	32	12		8	16	36	23	2.5	2.5	2.5	2.5	7.25	7.25	7.25	7.25	17.75	55.75	25.75	25.75	23	50.714286	74.33333	34.33333	73.57143	92
1SV23CS076	19	10	29	20	20	40	20		20	20	60	24	2.5	2.5	2.5	2.5	10.5	10.5	10.5	10.5	33	72	43	33	24	94.285714	96	57.33333	94.28571	96
1SV23CS077	15	6	21	0	0	0	13		4	0	17	16	2.5	2.5	2.5	2.5	5	5	5	5	11.5	35.5	13.5	7.5	16	32.857143	47.33333	18	21.42857	64
1SV23CS078	20	19	39	20	20	40	20		20	16	56	25	2.5	2.5	2.5	2.5	10.5	10.5	10.5	10.5	33	73	52	29	25	94.285714	97.33333	69.33333	82.85714	100
1SV23CS079	20	10	30	20	20	40	20		13	12	45	25	2.5	2.5	2.5	2.5	10.25	10.25	10.25	10.25	25.75	72.75	42.75	24.75	25	73.571429	97	57	70.71429	100
1SV23CS080	20	14	34	20	20	40	20		20	20	60	25	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	31	71	45	31	25	88.571429	94.66667	60	88.57143	100
1SV23CS081	18	7	25	20	11	31	20		8	16	44	24	2.5	2.5	2.5	2.5	8	8	8	8	18.5	68.5	28.5	26.5	24	52.857143	91.33333	38	75.71429	96
1SV23CS082	19	20	39	20	20	40	20		20	20	60	25	2.5	2.5	2.5	2.5	11.25	11.25	11.25	11.25	33.75	72.75	53.75	33.75	25	96.428571	97	71.66667	96.42857	100
1SV23CS083	11	16	27	13	17	30	14		10	9	33	24	2.5	2.5	2.5	2.5	5.75	5.75	5.75	5.75	18.25	46.25	41.25	17.25	24	52.142857	61.66667	55	49.28571	96
1SV23CS084	18	2	20	17	10	27	16		12	7	35	23	2.5	2.5	2.5	2.5	6.75	6.75	6.75	6.75	21.25	60.25	21.25	16.25	23	60.714286	80.33333	28.33333	46.42857	92
1SV23CS085	18	18	36	19	17	36	20		8	16	44	25	2.5	2.5	2.5	2.5	12	12	12	12	22.5	71.5	49.5	30.5	25	64.285714	95.33333	66	87.14286	100
1SV23CS086	15	6	21	16	11	27	18		8	20	46	24	2.5	2.5	2.5	2.5	10.75	10.75	10.75	10.75	21.25	62.25	30.25	33.25	24	60.714286	83	40.33333	95	96
1SV23CS087	20	20	40	20	20	40	20		20	20	60	25	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	31	71	51	31	25	88.571429	94.66667	68	88.57143	100
1SV23CS088	10	2	12	15	19	34	20		7	20	47	23	2.5	2.5	2.5	2.5	8.25	8.25	8.25	8.25	17.75	55.75	31.75	30.75	23	50.714286	74.33333	42.33333	87.85714	92
1SV23CS089	11	0	11	20	5	25	20		4	20	44	23	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	11	58	12	27	23	31.428571	77.33333	16	77.14286	92
1SV23CS090	10	6	16	20	7	27	20		8	10	38	15	2.5	2.5	2.5	2.5	5	5	5	5	15.5	57.5	20.5	17.5	15	44.285714	76.66667	27.33333	50	60
1SV23CS091	17	9	26	20	6	26	20		4	20	44	23	2.5	2.5	2.5	2.5	7.25	7.25	7.25	7.25	13.75	66.75	24.75	29.75	23	39.285714	89	33	85	92
1SV23CS092	4	0	4	11	3	14	20		7	10	37	20	2.5	2.5	2.5	2.5	5	5	5	5	14.5	42.5	10.5	17.5	20	41.428571	56.66667	14	50	80
1SV23CS093	8	4	12	20	4	24	20		20	4	44	23	2.5	2.5	2.5	2.5	8.25	8.25	8.25	8.25	30.75	58.75	18.75	14.75	23	87.857143	78.33333	25	42.14286	92
1SV23CS094	1	0	1	4	0	4	0		20	15	35	15	2.5	2.5	2.5	2.5	3	3	3	3	25.5	10.5	5.5	20.5	15	72.857143	14	7.333333	58.57143	60
1SV23CS095	12	8	20	14	12	26	20		0	20	40	23	2.5	2.5	2.5	2.5	6.5	6.5	6.5	6.5	9	55	29	29	23	25.714286	73.33333	38.66667	82.85714	92
1SV23CS096	14	18	32	20	12	32	20		12	20	52	25	2.5	2.5	2.5	2.5	9.75	9.75	9.75	9.75	24.25	66.25	42.25	32.25	25	69.285714	88.33333	56.33333	92.14286	100
1SV23CS097	9	18	27	16	10	26	12		12	8	32	22	2.5	2.5	2.5	2.5	8	8	8	8	22.5	47.5	38.5	18.5	22	64.285714	63.33333	51.33333	52.85714	88
1SV23CS098	19	14	33	17	17	34	20		12	20	52	25	2.5	2.5	2.5	2.5	8.25	8.25	8.25	8.25	22.75	66.75	41.75	30.75	25	65	89	55.66667	87.85714	100
1SV23CS099	0	0	0	0	6	6	6		4	6	16	15	2.5	2.5	2.5	2.5	2	2	2	2	8.5	10.5	10.5	10.5	15	24.285714	14	14	30	60
1SV23CS100	20	20	40	20	20	40	20		12	12	44	24	2.5	2.5	2.5	2.5	10	10	10	10	24.5	72.5	52.5	24.5	24	70	96.66667	70	70	96
1SV23CS101	9	9	18	12	14	26	17		0	10	27	23	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	7	45	30	17	23	20	60	40	48.57143	92
1SV23CS102	11	14	25	19	7	26	20		8	12	40	23	2.5	2.5	2.5	2.5	8.75	8.75	8.75	8.75	19.25	61.25	32.25	23.25	23	55	81.66667	43	66.42857	92
1SV23CS103	14	0	14	14	16	30	20		8	20	48	23	2.5	2.5	2.5	2.5	9	9	9	9	19.5	59.5	27.5	31.5	23	55.714286	79.33333	36.66667	90	92
1SV23CS104	15	16	31	20	19	39				A		24	2.5	2.5	2.5	2.5	5.25	5.25	5.25	5.25	7.75	42.75	42.75	7.75	24	22.142857	57	57	22.14286	96
1SV23CS105	3	5	8	15	3	18	20		12	19	51	22	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	19	45	15	26	22	54.285714	60	20	74.28571	88
1SV23CS106	0	0	0	18	6	24	18		1	0	19	15	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	8	43	13	7	15	22.857143	57.33333	17.33333	20	60
1SV23CS107	3	4	7	7	5	12	16		2	15	33	16	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	9	33	16	22	16	25.714286	44	21.33333	62.85714	64
1SV23CS108	9	2	11	20	5	25	9		0	16	25	21	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	7	45	14	23	21	20	60	18.66667	65.71429	84
1SV23CS109	16	7	23	16	16	32	20		12	19	51	24	2.5	2.5	2.5	2.5	9.75	9.75	9.75	9.75	24.25	64.25	35.25	31.25	24	69.285714	85.66667	47	89.28571	96
1SV23CS110	9	9	18	16	11	27	9		13	9	31	24	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	20	41	27	16	24	57.142857	54.66667	36	45.71429	96
1SV23CS111	10	9	19	20	8	28	20		9	9	38	23	2.5	2.5	2.5	2.5	7.75	7.75	7.75	7.75	19.25	60.25	27.25	19.25	23	55	80.33333	36.33333	55	92
1SV23CS112	7	3	10	20	9	29	20		11	4	35	23	2.5	2.5	2.5	2.5	5.5	5.5	5.5	5.5	19	55	20	12	23	54.285714	73.33333	26.66667	34.28571	92
1SV23CS113	19	18	37	20	15	35	20		18	20	58	23	2.5	2.5	2.5	2.5	10.75	10.75	10.75	10.75	31.25	72.25	46.25	33.25	23	89.285714	96.33333	61.66667	95	92
1SV23CS114	19	17	36	20	18	38	20		20	20	60	22	2.5	2.5	2.5	2.5	9.75	9.75	9.75	9.75	32.25	71.25	47.25	32.25	22	92.142857	95	63	92.14286	88
1SV23CS115	4	8	12	17	9	26	20		17	20	57	23	2.5	2.5	2.5	2.5	8.5	8.5	8.5	8.5	28	52	28	31	23	80	69.33333	37.33333	88.57143	92
1SV23CS116	16	16	32	18	18	36	20		11	15	46	25	2.5	2.5	2.5	2.5	9	9	9	9	22.5	65.5	45.5	26.5	25	64.285714	87.33333	60.66667	75.71429	100
1SV23CS117	7	7	14	13	2	15	13		8	9	30	16	2.5	2.5	2.5	2.5	5.5	5.5	5.5	5.5	16	41	17	17	16	45.714286	54.66667	22.66667	48.57143	64
1SV23CS118	6	15	21	16	4	20	10		0	0	10	22	2.5	2.5	2.5	2.5	5	5	5	5	7.5	39.5	26.5	7.5	22	21.428571	52.66667	35.33333	21.42857	88
1SV23CS119	11	17	28	20	17	37	20		10	20	50	25	2.5	2.5	2.5	2.5	10	10	10	10	22.5	63.5	46.5	32.5	25	64.285714	84.66667	62	92.85714	100
1SV23CS120	3	0	3	13	0	13	0		8	16	24	16	2.5	2.5	2.5	2.5	3.25	3.25	3.25	3.25	13.75	21.75	5.75	21.75	16	39.285714	29	7.666667	62.14286	64
1SV23CS121	11	1	12	20	7	27	20		0	8	28	23	2.5	2.5	2.5	2.5	6.5	6.5	6.5	6.5	9	60	17	17	23	25.714286	80	22.66667	48.57143	92
1SV23CS122	17	10	27	17	17	34	18		8	19	44	24	2.5	2.5	2.5	2.5	5	5	5	5	15.5	59.5	34.5	26.5	24	44.285714	79.33333	46	75.71429	96
																										59.43794	74.153	43.7596	66.3232	88.3934	66.4134

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Dept. of Physics
S.I.E.T., TUMKUR -6.

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SHRIDEVI	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

Department of Physics

Course Outcomes and COs-POs Mapping

Batch 2023-24

Semester – I

Subject: Applied Physics for CV Stream		**Subject Code:** BPHYC102
Course Outcomes		
CO1	Elucidate the concepts in oscillations, waves, elasticity and material failures	
CO2	Summarize concepts of acoustics in buildings and explain the concepts in radiation and photometry	
CO3	Discuss the principles photonic devices and their application relevant to civil engineering	
CO4	Describe the various natural hazards and safety precautions	
CO5	Practice working in groups to conduct experiments in physics and perform precise and honest measurements	

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY				
FACULTY NAME	Dr SADASHIVAIAHA P J / DERA PUSHPALATHA H				
BRANCH	CIVIL	ACADEMIC YEAR	2023-24		
COURSE	B.E	SEMESTER	I	SECTION	C
SUBJECT	APPLIED PHYSICS FOR CV STREAM	SUBJECT CODE	BPHYC102		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2			1							2
CO2	3	2										2
CO3	3	2										2
CO4	3	3				1						2
CO5	3	2	1		2			3	3			2
AVERAGE	3	2.2	1		1.5			3	3			2
OVERALL MAPPING OF SUBJECT												2.24

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	57.63	1.73	1.15		0.58								1.15
CO2	61.97	1.86	1.24										1.24
CO3	61.67	1.85	1.23										1.23
CO4	70.24	2.11	2.11										1.40
CO5	79.33	2.38	1.59	0.79		1.59			2.38	2.38			1.59
AVERAGE	66.17	1.98	1.46	0.79	0.58	1.59			1.98	1.98			1.32
FINAL ATTAINMENT LEVEL													1.46

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SEM: I	Total Strength			6			Course: Applied Physics for Civil Stream						BPHYC102								2022-2023									
SEC: C	IA TEST 1			IA TEST 2			IA TEST 3					PRACTICAL COMPONENT (25)	ASSIGNEMENT (10M)				SEE MARKS(50)				Total Cos ATTAINMENT					% of Individual CO				
USN	CO1	CO1	TOTAL	CO1	CO2	TOTAL	CO1	CO2	CO3	CO4	TOTAL	CO5	CO1	CO2	CO3	CO4	CO1	CO2	CO3	CO4	CO1=95	CO2=55	CO3=35	CO4=35	CO5=25	CO1	CO2	CO3	CO4	CO5	
1SV23CV001	20	20	40	19	20	39	20		20	20	60	21	2.5	2.5	2.5	2.5	8	8	8	8	89.5	30.5	30.5	30.5	21	94.210526	55.45455	87.14286	87.14286	84	
1SV23CV002	18	17	35	19	20	39		19	18	13	50	15	2.5	2.5	2.5	2.5	7.5	7.5	7.5	7.5	64	49	28	23	15	67.368421	89.09091	80	65.71429	60	
1SV23CV003	13	14	27	12	20	32	20		11	16	47	23	2.5	2.5	2.5	2.5	5.25	5.25	5.25	5.25	66.75	27.75	18.75	23.75	23	70.263158	50.45455	53.57143	67.85714	92	
1SV23CV004	3	2	5	5	15	20		10	6	12	28	18	2.5	2.5	2.5	2.5	7	7	7	7	19.5	34.5	15.5	21.5	18	20.526316	62.72727	44.28571	61.42857	72	
1SV23CV005	17	12	29	13	20	33		20	7	20	47	25	2.5	2.5	2.5	2.5	7.25	7.25	7.25	7.25	51.75	49.75	16.75	29.75	25	54.473684	90.45455	47.85714	85	100	
1SV23CV006	7	0	7	9	6	15	14		13	12	39	17	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	37	13	20	19	17	38.947368	23.63636	57.14286	54.28571	68	
																										57.63158	61.9697	61.6667	70.2381	79.3333	66.1679

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SHRIDEVI	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

Department of Physics

Course Outcomes and COs-POs Mapping

Batch 2023-24

Semester – I

Subject: Applied Physics for ME Stream		**Subject Code:** BPHYM102
Course Outcomes		
CO1	Elucidate the concepts in oscillations, waves, elasticity and material failures	
CO2	Discuss the fundamentals of Thermoelectric materials and their application	
CO3	Summarize the low temperature phenomena and generation of low temperature	
CO4	Explain the various material characterization techniques	
CO5	Practice working in groups to conduct experiments in physics and perform precise and honest measurements.	

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY											
FACULTY NAME	Dr SADASHIVAIAHA P J / DERA PUSHPALATHA H											
BRANCH	MECHANICAL			ACADEMIC YEAR			2023-24					
COURSE	B.E	SEMESTER		I	SECTION		D					
SUBJECT	APPLIED PHYSICS FOR ME STREAM					SUBJECT CODE		BPHYM102				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2			2							2
CO2	3	2										2
CO3	3	2										2
CO4	3	2										2
CO5	3	2	1		2			3	3			2
AVERAGE	3	2	1		2			3	3			2
OVERALL MAPPING OF SUBJECT												2.28

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	43.65	1.31	0.87			0.87							0.87
CO2	26.30	0.79	0.53										0.53
CO3	53.98	1.62	1.80										1.80
CO4	56.43	1.69	1.13										1.13
CO5	81.14	2.43	1.62	0.81		1.62			2.43	2.43			1.62
AVERAGE	52.30	1.57	1.19	0.81		1.24			2.43	2.43			1.19
FINAL ATTAINMENT LEVEL													1.55

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SEM: I	Total Strength			7			Course:Applied Physics for Mechanical Stream						BPHYM102								2023-2024										
SEC: D	IA TEST 1			IA TEST 2			IA TEST 3					PRACTICAL COMPONENT (25)	ASSIGNEMENT (10M)				SEE MARKS(50)				Total Cos ATTAINMENT					% of Individual CO					
USN	CO1	CO1	TOTAL	CO1	CO2	TOTAL	CO1	CO2	CO3	CO4	TOTAL	CO5	CO1	CO2	CO3	CO4	CO1	CO2	CO3	CO4	CO1=95	CO2=55	CO3=35	CO4=35	CO5=25	CO1	CO2	CO3	CO4	CO5	
1SV23ME001	8	3	11	0	5	5	12		11	14	37	27	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	30	12	18	21	27	31.578947	21.81818	51.42857	60	108	
1SV23ME002	14	5	19	4	4	8	17		8	14	39	20	2.5	2.5	2.5	2.5	6	6	6	6	48.5	12.5	16.5	22.5	20	51.052632	22.72727	47.14286	64.28571	80	
1SV23ME003	10	16	26	11	18	29	16		20	20	56	22	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	60	25	27	27	22	63.157895	45.45455	77.14286	77.14286	88	
1SV23ME004	8	15	23	6	15	21	8		3	7	18	17	2.5	2.5	2.5	2.5	2.75	2.75	2.75	2.75	42.25	20.25	8.25	12.25	17	44.473684	36.81818	23.57143	35	68	
1SV23ME005	10	12	22	3	2	5	8		6	16	30	18	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	40	9	13	23	18	42.105263	16.36364	37.14286	65.71429	72	
1SV23ME006	13	9	22			A	7		17	0	24	15	2.5	2.5	2.5	2.5	0.75	0.75	0.75	0.75	32.25	3.25	20.25	3.25	15	33.947368	5.909091	57.85714	9.285714	60	
1SV23ME007	16	12	28	0	6	6		4	20	20	44	23	2.5	2.5	2.5	2.5	6.75	6.75	6.75	6.75	37.25	19.25	29.25	29.25	23	39.210526	35	83.57143	83.57143	92	
																										43.646617	26.2987	53.97959	56.42857	81.14286	52.29927

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