



HINDU COLLEGE

University of Delhi

Course Outcomes – Program Outcomes (COPO) Mapping and Attainment

Program Outcomes (PO): B.Sc. (Hons.) Physics

PO1: Provide opportunities to students to learn, design and perform experiments in lab, gain an understanding of laboratory methods, analysis of observational data and report writing, and acquire a deeper understanding of concepts, principles and theories learned in the classroom through laboratory demonstration, and computational problems and modelling.

PO2: Develop the ability of students to apply the knowledge and skills they have acquired to get to the solutions of specific theoretical and applied problems in Physics.

PO3: To prepare students for pursuing the interdisciplinary and multidisciplinary higher education and/or research in interdisciplinary and multidisciplinary areas, as Physics is among the most important branches of science necessary for interdisciplinary and multidisciplinary research.

PO4: To prepare students for developing new industrial technologies and theoretical tools for applications in diverse branches of the economic life of the country, as Physics is one of the branches of science which contribute directly to technological development; and it has the most advanced theoretical structure to make quantitative assessments and predictions, and in light of all of the above to provide students with the knowledge and skill base that would enable them to undertake further studies in Physics and related areas, or in interdisciplinary/multidisciplinary areas, or join and be successful in diverse professional streams including entrepreneurship.

Course Outcomes (CO): B.Sc. (Hons.) Physics

Sem	Code	Course	CO	Statement
I	32221101	Mathematical Physics-I	CO1	Revise the knowledge of calculus, vectors, vector calculus, probability and probability distributions. These basic mathematical structures are essential in solving problems in various branches of Physics as well as in engineering.
			CO2	Draw and interpret graphs of various functions. Solve first order differential equations and apply it to physics problems solve linear second order homogeneous and non-homogeneous differential equations with constant coefficients.
			CO3	Calculate partial derivatives of function of several variables Understand the concept of gradient of scalar field and divergence and curl of vector fields.
			CO4	Perform line, surface and volume integration and apply Green's, Stokes' and Gauss's Theorems to compute these integrals.
			CO5	Apply curvilinear coordinates to problems with spherical and cylindrical symmetries.

			CO6	Understand elementary probability theory and the properties of discrete and continuous distribution functions.
			CO7	In the laboratory course, learn the fundamentals of the C and C++ programming languages. Also, understanding Monte Carlo techniques, fitting a given data to linear function using method of least squares, approximation of a function by Maclaurin and Taylor's series, finding roots of a given equation and their applications in solving simple physical problems.
II	32221201	Electricity and Magnetism	CO1	Demonstrate the application of Coulomb's law for the electric field, and also apply it to systems of point charges as well as line, surface, and volume distributions of charges.
			CO2	Demonstrate an understanding of the relation between electric field and potential, exploit the potential to solve a variety of problems, and relate it to the potential energy of a charge distribution.
			CO3	Exploit alternative coordinate systems (cylindrical and spherical coordinates) to solve problems.
			CO4	Apply Gauss's law of electrostatics to solve a variety of problems.
			CO5	Demonstrate an understanding of electric dipoles and the role of molecular dipoles in the electrostatic response of dielectrics.
			CO6	Demonstrate an understanding of the behaviour of electric conductors.
			CO7	Demonstrate a working understanding of capacitors.
			CO8	Calculate the magnetic forces that act on moving charges and the magnetic fields due to currents (Biot- Savart and Ampere laws).
			CO9	Understand the concepts of induction and self-induction, to solve problems using Faraday's and Lenz's laws.
			CO10	Apply Kirchhoff's rules to analyse AC circuits consisting of parallel and/or series combinations of voltage sources and resistors and to describe the graphical relationship of resistance, capacitor and inductor.
			CO11	Deal with electromagnetic oscillations, AC currents and oscillation circuits and analyse and solve LCR circuits.
			CO12	Understand the basics of electrical circuits and analyse circuits using Network Theorems such as Superposition, Thevenin, Norton, Reciprocity, Maximum Power Transfer, etc.
			CO13	In the laboratory course the student will get an opportunity to verify network theorems and study different circuits such as RC circuit, LCR circuit. Different methods to measure low and high resistance, capacitance, self-inductance, mutual inductance and also strength of a magnetic field and its variation (dB/dX)
III	32221301	Mathematical Physics-II	CO1	Represent a periodic function by a sum of harmonics using Fourier series and their applications in physical problems such as vibrating strings etc.
			CO2	Expand an odd or even function as half range sine and cosine Fourier series.

			CO3	Obtain power series solution of differential equation of second order with variable coefficient using Frobenius method.
			CO4	Understand properties and applications of special functions like Legendre polynomials, Bessel functions and their differential equations and their applications in various physical problems such as in quantum mechanics.
IV	32221401	Mathematical Physics-III	CO1	Determine continuity, differentiability and analyticity of a complex function and find the derivative of a function.
			CO2	Understand properties of elementary complex functions (polynomials, reciprocals, exponential, trigonometric, hyperbolic, etc) of a single complex variable.
			CO3	Work with multi-valued functions (logarithmic, complex power, inverse trigonometric function) and determine branches of these functions.
			CO4	Evaluate a contour integral using parameterization, fundamental theorem of calculus and Cauchy's integral formula.
			CO5	Find the Taylor series of a function and determine its radius of convergence
V	32221501	Quantum Mechanics Applications	CO1	Familiarisation with quantum mechanics formulation.
			CO2	After an exposition of inadequacies of classical mechanics in explaining microscopic phenomena, quantum theory formulation is introduced through the Schrodinger equation.
			CO3	The interpretation of wave function of a quantum particle and probabilistic nature of its location and subtler points of quantum phenomena are exposed to the student.
			CO4	Methods to solve time-dependent and time-independent Schrodinger equation.
			CO5	Through understanding the behaviour of quantum particles encountering a barrier potential, the student gets exposed to solving non-relativistic hydrogen atoms, for its spectrum and eigenfunctions.
VI	32221601	Electromagnetic Theory	CO1	Concept of Maxwell Equations, role of displacement current, gauge transformations, scalar and vector potentials, Coulomb and Lorentz gauge, boundary conditions at the interface between different media.
			CO2	Apply Maxwell's equations to deduce wave equation, electromagnetic field energy, momentum and angular momentum density.
			CO3	Understanding of Poynting Theorem and pointing vector.
			CO4	Electromagnetic wave propagation in unbounded media: Vacuum, dielectric medium, conducting medium, plasma. Electromagnetic wave propagation in bounded media.

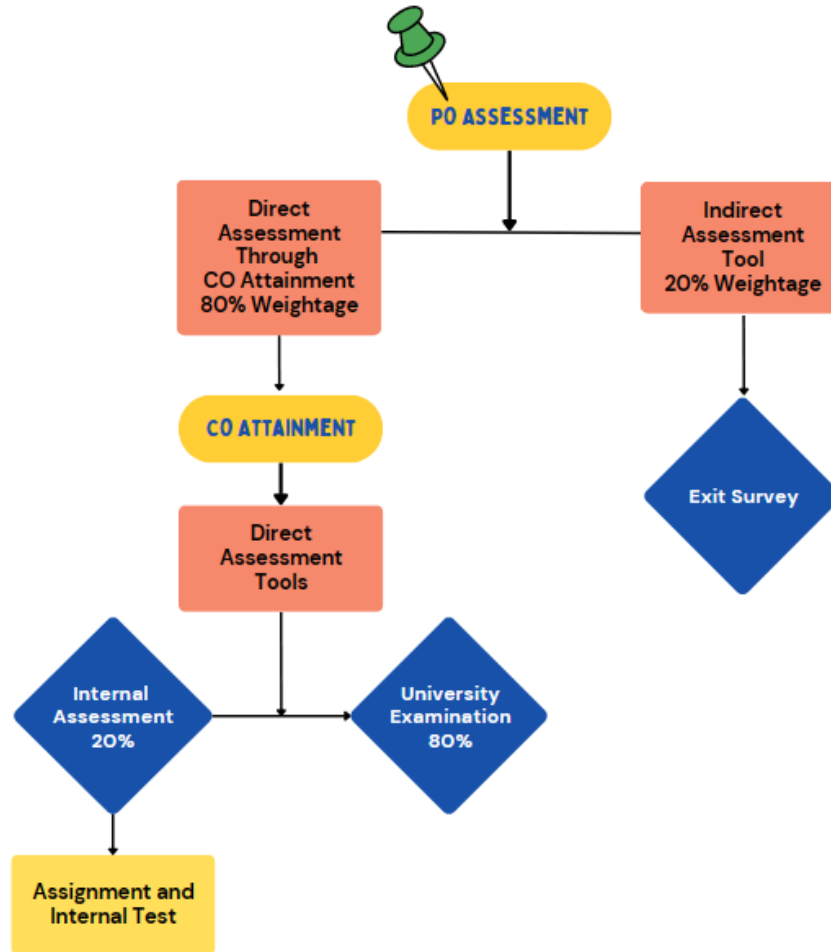
COPO Mapping: B.Sc. (Hons.) Physics

Sem	PO	PO1	PO2	PO3	PO4	
	CO					
I	CO1	x				
	CO2	x				
	CO3		x			
	CO4		x			
	CO5	x				
	CO6	x				
	CO7			x		
II	CO1	x				
	CO2		x			
	CO3		x			
	CO4	x				
	CO5		x			
	CO6		x			
	CO7		x			
	CO8		x			
	CO9	x				
	CO10	x				
	CO11				x	
	CO12			x		
	CO13				x	
III	CO1	x				
	CO2			x		
	CO3		x			
	CO4			x		
IV	CO1		x			
	CO2				x	
	CO3			x		
	CO4				x	
	CO5		x			
V	CO1			x		
	CO2		x			
	CO3			x		
	CO4				x	

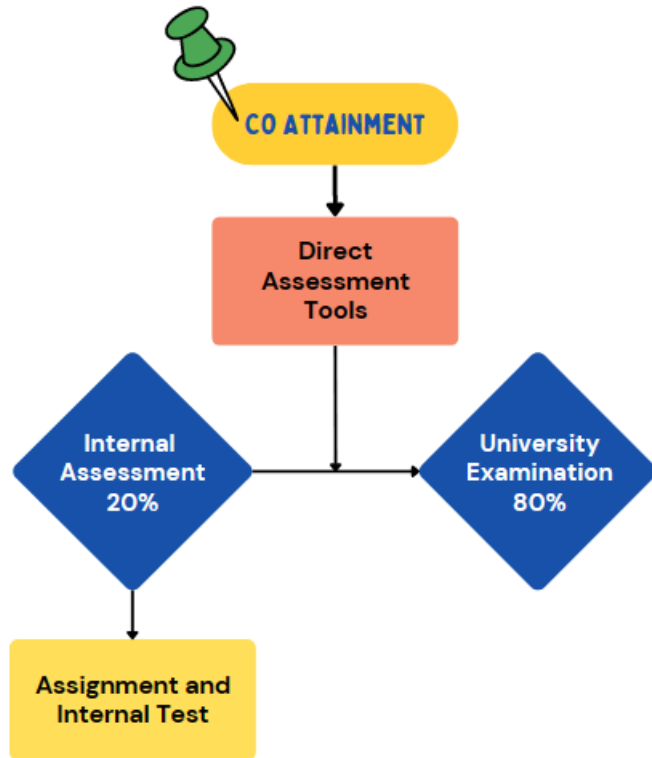
	C05				x
VI	C01		x		
	C02			x	
	C03			x	
	C04				x

Attainment of COs and POs in B.Sc. (Hons.) Physics

Assessment Tools:



CO Attainment Tools:



Internal Assessment Score:

- The internal assessment score is determined as per the following rubrics:

Range (% of attempts \geq 60%)	Level of Attainment	
≥ 80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

University Examination Score:

- The University examination score is determined as per the following rubrics:

Range (% of attempts \geq 60%)	Level of Attainment	
≥ 80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

Overall CO Attainment

- The overall CO attainment is calculated on a scale of 3 by considering 80 % of the level of attainment from University examination and 20% of the level of attainment from Internal assessment.

Program: B.Sc. (Hons.) Physics
Course Name: Mathematical Physics-I
Course Code: 32221101
Semester I

Attainment (Direct Assessment)

Roll No.	Name	Internal Assessment Out of 25	University Exam. Out of Scale 10	University Exam. (Percentage = scale 10*9.5)
19026567001	KAVYA M S	25	8	76
19026567002	LINTU PAUL	25	8	76
19026567003	ASHBY SREEJAN	23	8	76
19026567004	ANAND C	21	6	57
19026567005	DEVVKRISHNA A	25	8	76
19026567006	VISHNUPRASAD T M	25	10	95
19026567007	ABHINAV KRISHNAN	22	8	76
19026567008	SIDHARTH K S	25	7	66.5
19026567009	ANANDAJITH T S	22	8	76
19026567010	MUHAMMED SWALIH VADAKKETHIL	17	7	66.5
19026567011	VIVEK G S	10	7	66.5
19026567012	ABHIRAM N R	20	8	76
19026567013	VEDASREE R	25	8	76
19026567014	HARIDEV M	21	8	76
19026567015	SHUBHAM SUNIL SHENDE	25	9	85.5
19026567016	ABHIRAM P P	25	9	85.5
19026567017	JOSWIN P JOY	15	8	76

19026567018	SAYANTH D. S.	25	10	95
19026567019	ANSHID P	25	10	95
19026567020	AMAN KUMAR BUJETHIA	22	7	66.5
19026567021	THANGJAM VICTOR	23	9	85.5
19026567022	SANDRA M P	25	9	85.5
19026567023	C V SREEJITH	25	10	95
19026567024	ABHISHEK RAMESH	25	8	76
19026567025	GAURAV SHARMA	25	9	85.5
19026567026	SANDESH S	23	9	85.5
19026567027	NITHIN V P	23	9	85.5
19026567028	ABHIRAM K	25	9	85.5
19026567029	URGEN SHERPA	25	8	76
19026567030	MANISH KUMAR MEENA	25	9	85.5
19026567031	PRAVEEN KUMAR MEENA	25	9	85.5
19026567032	KRISHNAKANT YOGI	25	9	85.5
19026567033	KARTHIK KRISHNAN	25	9	85.5
19026567034	SOMANSHU KADAM	25	9	85.5
19026567035	TRILOK CHAND MEENA	25	6	57
19026567036	KAMAL DEEP MEENA	19	6	57
19026567037	ADHITH VINOD	25	7	66.5
19026567038	SACHET PAUL	25	9	85.5
19026567039	DEVAPRIYA N K	15	7	66.5
19026567040	MUHAMMED SALIH T	15	8	76
19026567041	MITHRAVINDA M M	12	7	66.5
19026567042	SARAGA S	25	9	85.5
19026567043	GOPIKA K NAMBIAR	25	9	85.5

19026567044	UMESH KASNIA	25	9	85.5
19026567045	ASWIN N K	25	8	76
19026567046	PRASHANT SINGH	5	7	66.5
19026567047	SUNNY SHARMA	25	8	76
19026567048	BALWANT SINGH	25	7	66.5
19026567049	HARSHAA	25	9	85.5
19026567050	GAUTAM KUMAR	15	8	76
19026567051	GOPIKA MADHU	25	9	85.5
19026567052	RAHUL PARMAR	25	9	85.5
19026567053	VARDAAN GUPTA	15	8	76
19026567054	ANIRUDH SASI	25	9	85.5
19026567055	NEELAMBARI S	25	9	85.5
19026567056	UDIT GARG	25	8	76
19026567057	DHANUR BHARDWAJ	25	9	85.5
19026567058	ARPIT ARYA	25	8	76
19026567059	ANKIT SHARMA	25	8	76
19026567060	ASWIN.K	22	7	66.5
19026567061	BHARTI	25	8	76
19026567062	MANISH JUGTAWAT	25	9	85.5
19026567063	HEMANKAR PAADAM	12	7	66.5
19026567064	JASVEER SINGH	25	8	76
19026567065	PARDEEP KUMAR	25	9	85.5
19026567066	ABHISHEK GURJAR	19	8	76
19026567067	PINTU CHOUDHARY	24	8	76
19026567068	NIRMAL KUMAR MEENA	25	9	85.5
19026567069	ARPIT NEGI	5	7	66.5
19026567070	RITIKA	25	9	85.5
19026567071	SHIJUL RAHMAN	25	8	76

19026567072	MANOJ KUMAR PRAJAPATI	25	8	76
19026567073	ANSHUL KASHYAP	25	9	85.5
19026567074	RAJ KUMAR	25	8	76
19026567075	NAVYUG GANGWAR	25	9	85.5
19026567076	POORNIMA P	25	9	85.5
19026567077	AMAN KUMAR	25	8	76
19026567078	MONU JANGIR	25	8	76
19026567079	VAISHNAV M	25	9	85.5
19026567080	GURPREET SINGH	25	9	85.5
19026567081	SAMEER KATOCH	5	6	57
19026567082	SARBEENA K.P	25	8	76
19026567083	CHIRAG	25	9	85.5
19026567084	NIBRASUDDEEN A.P	25	9	85.5
19026567085	MANISH KUMAR	24	8	76
19026567086	NIVEDITA RIHAL	25	8	76
19026567087	AIDAN SINGH	22	7	66.5
19026567088	AMIT	13	6	57
19026567089	VISHAL TEJA BETHU	20	8	76
19026567090	AJAY MEENA	25	9	85.5
19026567091	MANVI	25	9	85.5
19026567092	DHARMENDRA MEENA	22	7	66.5
19026567093	MANISHA	24	8	76
19026567094	TESRING TONDUP	15	7	66.5
19026567095	PARUL CHAUHAN	25	9	85.5
19026567096	ANIMUL ISLAM	25	8	76
19026567097	MANAS JHA	24	8	76
19026567098	KISHNA RAM	5	6	57
19026567099	NEERAJ SINGH	25	10	95

19026567100	ANIL	25	8	76
19026567101	TUSHAR GAUTAM	25	10	95
19026567103	SINGH UTKARSH RAJESH	25	9	85.5
19026567104	DIVYANSH PARETA	25	8	76
19026567105	BHUPENDAR KUMAR MEENA	25	9	85.5
19026567106	MOHIT KUMAR	25	9	85.5
19026567107	NISHA	25	9	85.5
19026567108	YASH PRATAP SINGH BAGRI	25	9	85.5
19026567109	MOHIT KUMAR	25	9	85.5
19026567110	SUBHAKAR KUMAR	25	6	57
19026567111	TANGULA DANIEL	23	7	66.5
19026567112	ANIL SINGH BOKTI	25	7	66.5
19026567113	SHIVALIKA	25	8	76
19026567114	RAMDEV	25	7	66.5
19026567115	ABHINANDAN KHAJURIA	25	10	95
19026567116	ARYAN PANDITA	25	6	57
19026567117	DEEPANSHU GANWAL	25	8	76
19026567118	SATISH KUMAR CHATURVEDI	25	9	85.5
19026567119	KIRTI KUMAR NAYAK	25	9	85.5
19026567120	PRINCE	22	7	66.5
19026567121	PRATEEK	10	6	57
19026567122	PRATEEK JINDAL	25	9	85.5
19026567123	DEENU	15	6	57
19026567124	ABDUR ROUF	25	6	57
19026567125	HARSHUL BHATIA	19	8	76
19026567126	YOGESH	19	6	57

19026567127	DEEPANSHU	25	8	76
19026567129	SOLLU HARISH	24	8	76

Level of CO Attainment

Sem	Attempts	Internal Assessment	Level of Attainment	University Examination	Level of Attainment	*Overall CO Attainment
I	No: of attempts >= 60%	118	3	115	3	3
	Total Attempts	127		127		
	% of attempts >= 60%	92.91		90.55		

*Overall Attainment = (20% of Internal Assessment Attainment + 80% of University Examination Attainment)

Course Level COPO Attainment Metrix

Sem I	PO1	PO2	PO3	PO4
CO1	3			
CO2	3			
CO3		3		
CO4		3		
CO5	3			
CO6	3			
CO7		3		

% of attempts >= 60%	Level of Attainment	
>=80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

Program: B.Sc. (Hons.) Physics
Course Name: Electricity and Magnetism
Course Code: 32221201
Semester II

Attainment (Direct Assessment)

Roll No.	Name	Internal Assessment Out of 25	University Exam. Out of Scale 10	University Exam. (Percentage = scale 10*9.5)
19026567001	KAVYA M S	24	9	85.5
19026567002	LINTU PAUL	24	9	85.5
19026567003	ASHBY SREEJAN	24	9	85.5
19026567004	ANAND C	20	8	76
19026567005	DEVVKRISHNA A	25	9	85.5
19026567006	VISHNUPRASAD T M	24	9	85.5
19026567007	ABHINAV KRISHNAN	22	9	85.5
19026567008	SIDHARTH K S	24	9	85.5
19026567009	ANANDAJITH T S	24	8	76
19026567010	MUHAMMED SWALIH VADAKKETHIL	21	7	66.5
19026567011	VIVEK G S	23	7	66.5
19026567012	ABHIRAM N R	22	8	76
19026567013	VEDASREE R	23	8	76
19026567014	HARIDEV M	22	8	76

19026567015	SHUBHAM SUNIL SHENDE	24	9	85.5
19026567016	ABHIRAM P P	23	9	85.5
19026567017	JOSWIN P JOY	21	8	76
19026567018	SAYANTH D. S.	20	9	85.5
19026567019	ANSHID P	22	9	85.5
19026567020	AMAN KUMAR BUJETHIA	22	8	76
19026567021	THANGJAM VICTOR	21	9	85.5
19026567022	SANDRA M P	24	9	85.5
19026567023	C V SREEJITH	21	10	95
19026567024	ABHISHEK RAMESH	23	8	76
19026567025	GAURAV SHARMA	22	9	85.5
19026567026	SANDESH S	22	9	85.5
19026567027	NITHIN V P	25	9	85.5
19026567028	ABHIRAM K	22	9	85.5
19026567029	URGEN SHERPA	20	8	76
19026567030	MANISH KUMAR MEENA	21	9	85.5
19026567031	PRAVEEN KUMAR MEENA	5	9	85.5
19026567032	KRISHNAKANT YOGI	22	9	85.5
19026567033	KARTHIK KRISHNAN	22	9	85.5
19026567034	SOMANSHU KADAM	22	9	85.5
19026567035	TRILOK CHAND MEENA	19	6	57
19026567036	KAMAL DEEP MEENA	16	6	57
19026567037	ADHITH VINOD	21	7	66.5
19026567038	SACHET PAUL	20	9	85.5
19026567039	DEVAPRIYA N K	23	7	66.5

19026567040	MUHAMMED SALIH T	23	8	76
19026567041	MITHRAVINDA M M	22	7	66.5
19026567042	SARAGA S	23	9	85.5
19026567043	GOPIKA K NAMBIAR	23	9	85.5
19026567044	UMESH KASNIA	22	9	85.5
19026567045	ASWIN N K	22	8	76
19026567046	PRASHANT SINGH	22	7	66.5
19026567047	SUNNY SHARMA	18	8	76
19026567048	BALWANT SINGH	22	7	66.5
19026567049	HARSHAA	25	9	85.5
19026567050	GAUTAM KUMAR	21	8	76
19026567051	GOPIKA MADHU	24	9	85.5
19026567052	RAHUL PARMAR	23	9	85.5
19026567053	VARDAAN GUPTA	23	8	76
19026567054	ANIRUDH SASI	22	9	85.5
19026567055	NEELAMBARI S	22	9	85.5
19026567056	UDIT GARG	24	8	76
19026567057	DHANUR BHARDWAJ	23	9	85.5
19026567058	ARPIT ARYA	23	8	76
19026567059	ANKIT SHARMA	22	8	76
19026567060	ASWIN.K	23	7	66.5
19026567061	BHARTI	21	8	76
19026567062	MANISH JUGTAWAT	24	9	85.5
19026567063	HEMANKAR PAADAM	22	7	66.5
19026567064	JASVEER SINGH	22	8	76
19026567065	PARDEEP KUMAR	24	9	85.5
19026567066	ABHISHEK GURJAR	17	8	76
19026567067	PINTU CHOUDHARY	21	8	76

19026567068	NIRMAL KUMAR MEENA	22	9	85.5
19026567069	ARPIT NEGI	23	7	66.5
19026567070	RITIKA	25	9	85.5
19026567071	SHIJUL RAHMAN	22	8	76
19026567072	MANOJ KUMAR PRAJAPAT	24	8	76
19026567073	ANSHUL KASHYAP	22	9	85.5
19026567074	RAJ KUMAR	21	8	76
19026567075	NAVYUG GANGWAR	24	9	85.5
19026567076	POORNIMA P	22	9	85.5
19026567077	AMAN KUMAR	22	8	76
19026567078	MONU JANGIR	23	8	76
19026567079	VAISHNAV M	23	9	85.5
19026567080	GURPREET SINGH	22	9	85.5
19026567081	SAMEER KATOCH	19	6	57
19026567082	SARBEENA K.P	23	8	76
19026567083	CHIRAG	22	9	85.5
19026567084	NIBRASUDDEEN A.P	23	9	85.5
19026567085	MANISH KUMAR	24	8	76
19026567086	NIVEDITA RIHAL	25	8	76
19026567087	AIDAN SINGH	21	7	66.5
19026567088	AMIT	17	6	57
19026567089	VISHAL TEJA BETHU	19	8	76
19026567090	AJAY MEENA	21	9	85.5
19026567091	MANVI	22	9	85.5
19026567092	DHARMENDRA MEENA	19	7	66.5
19026567093	MANISHA	23	8	76
19026567094	TESRING TONDUP	17	7	66.5

19026567095	PARUL CHAUHAN	22	9	85.5
19026567096	ANIMUL ISLAM	22	8	76
19026567097	MANAS JHA	22	8	76
19026567099	NEERAJ SINGH	22	6	57
19026567100	ANIL	18	7	66.5
19026567101	TUSHAR GAUTAM	23	9	85.5
19026567104	DIVYANSH PARETA	23	9	85.5
19026567105	BHUPENDAR KUMAR MEENA	21	8	76
19026567106	MOHIT KUMAR	22	9	85.5
19026567107	NISHA	22	9	85.5
19026567108	YASH PRATAP SINGH BAGRI	21	9	85.5
19026567109	MOHIT KUMAR	22	9	85.5
19026567110	SUBHAKAR KUMAR	22	9	85.5
19026567111	TANGULA DANIEL	3	6	57
19026567112	ANIL SINGH BOKTI	23	7	66.5
19026567113	SHIVALIKA	23	7	66.5
19026567114	RAMDEV	24	8	76
19026567115	ABHINANDAN KHAJURIA	23	7	66.5
19026567116	ARYAN PANDITA	23	8	76
19026567117	DEEPANSHU GANWAL	21	6	57
19026567118	SATISH KUMAR CHATURVEDI	20	8	76
19026567119	KIRTI KUMAR NAYAK	22	9	85.5
19026567120	PRINCE	21	9	85.5
19026567121	PRATEEK	20	7	66.5
19026567122	PRATEEK JINDAL	23	9	85.5
19026567123	DEENU	15	6	57

19026567124	ABDUR ROUF	20	7	66.5
19026567125	HARSHUL BHATIA	19	6	57
19026567126	YOGESH	17	6	57
19026567127	DEEPANSHU	22	9	85.5
19026567129	SOLLU HARISH	22	9	85.5

Level of CO Attainment

Sem	Attempts	Internal Assessment	Level of Attainment	University Examination	Level of Attainment	*Overall CO Attainment
II	No: of attempts >= 60%	115	3	123	3	3
	Total Attempts	125		125		
	% of attempts >= 60%	92		98.4		

*Overall Attainment = (20% of Internal Assessment Attainment + 80% of University Examination Attainment)

Course Level COPO Attainment Metrix

Sem II	PO1	PO2	PO3	PO4
CO1	3			
CO2		3		
CO3		3		
CO4	3			
CO5		3		
CO6		3		
CO7		3		
CO8		3		
CO9	3			
CO10	3			
CO11			3	
CO12		3		
CO13			3	

% of attempts >= 60%	Level of Attainment	
>=80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

Program: B.Sc. (Hons.) Physics
Course Name: Mathematical Physics-II
Course Code: 32221301
Semester III

Attainment (Direct Assessment)

Roll No.	Name	Internal Assessment Out of 25	University Exam. Out of Scale 10	University Exam. (Percentage = scale 10*9.5)
19026567001	KAVYA M S	25	10	95
19026567002	LINTU PAUL	25	10	95
19026567003	ASHBY SREEJAN	25	10	95
19026567004	ANAND C	25	9	85.5
19026567005	DEVVKRISHNA A	25	9	85.5
19026567006	VISHNUPRASAD T M	25	10	95
19026567007	ABHINAV KRISHNAN	25	9	85.5
19026567008	SIDHARTH K S	24	9	85.5
19026567009	ANANDAJITH T S	24	10	95
19026567010	MUHAMMED SWALIH VADAKKETHIL	24	9	85.5
19026567011	VIVEK G S	24	9	85.5
19026567012	ABHIRAM N R	24	10	95
19026567013	VEDASREE R	23	10	95
19026567014	HARIDEV M	24	10	95
19026567015	SHUBHAM SUNIL SHENDE	25	10	95
19026567016	ABHIRAM P P	24	9	85.5
19026567017	JOSWIN P JOY	24	8	76
19026567018	SAYANTH D. S.	23	9	85.5

19026567019	ANSHID P	25	9	85.5
19026567020	AMAN KUMAR BUJETHIA	23	8	76
19026567021	THANGJAM VICTOR	23	9	85.5
19026567022	SANDRA M P	24	9	85.5
19026567023	C V SREEJITH	24	10	95
19026567024	ABHISHEK RAMESH	25	8	76
19026567025	GAURAV SHARMA	23	9	85.5
19026567026	SANDESH S	25	9	85.5
19026567027	NITHIN V P	24	9	85.5
19026567028	ABHIRAM K	24	9	85.5
19026567029	URGEN SHERPA	23	8	76
19026567030	MANISH KUMAR MEENA	0	9	85.5
19026567031	PRAVEEN KUMAR MEENA	0	9	85.5
19026567032	KRISHNAKANT YOGI	23	9	85.5
19026567033	KARTHIK KRISHNAN	24	9	85.5
19026567035	TRILOK CHAND MEENA	21	9	85.5
19026567036	KAMAL DEEP MEENA	23	6	57
19026567037	ADHITH VINOD	25	6	57
19026567038	SACHET PAUL	23	7	66.5
19026567039	DEVAPRIYA N K	23	9	85.5
19026567040	MUHAMMED SALIH T	0	7	66.5
19026567041	MITHRAVINDA M M	24	8	76
19026567042	SARAGA S	24	7	66.5
19026567043	GOPIKA K NAMBIAR	25	9	85.5
19026567044	UMESH KASNIA	23	9	85.5
19026567045	ASWIN N K	25	9	85.5

19026567046	PRASHANT SINGH	0	8	76
19026567047	SUNNY SHARMA	24	7	66.5
19026567048	BALWANT SINGH	24	8	76
19026567049	HARSHAA	25	7	66.5
19026567050	GAUTAM KUMAR	25	9	85.5
19026567051	GOPIKA MADHU	25	8	76
19026567052	RAHUL PARMAR	20	9	85.5
19026567053	VARDAAN GUPTA	24	9	85.5
19026567054	ANIRUDH SASI	25	8	76
19026567055	NEELAMBARI S	24	9	85.5
19026567056	UDIT GARG	23	9	85.5
19026567057	DHANUR BHARDWAJ	23	8	76
19026567058	ARPIT ARYA	24	9	85.5
19026567059	ANKIT SHARMA	25	8	76
19026567060	ASWIN.K	23	8	76
19026567061	BHARTI	25	7	66.5
19026567062	MANISH JUGTAWAT	24	8	76
19026567063	HEMANKAR PAADAM	24	9	85.5
19026567064	JASVEER SINGH	23	7	66.5
19026567065	PARDEEP KUMAR	22	8	76
19026567066	ABHISHEK GURJAR	21	9	85.5
19026567067	PINTU CHOUDHARY	20	8	76
19026567068	NIRMAL KUMAR MEENA	21	8	76
19026567069	ARPIT NEGI	0	9	85.5
19026567070	RITIKA	24	7	66.5
19026567071	SHIJUL RAHMAN	23	9	85.5
19026567072	MANOJ KUMAR PRAJAPAT	25	8	76

19026567073	ANSHUL KASHYAP	23	8	76
19026567074	RAJ KUMAR	22	9	85.5
19026567075	NAVYUG GANGWAR	25	8	76
19026567076	POORNIMA P	25	9	85.5
19026567077	AMAN KUMAR	24	9	85.5
19026567078	MONU JANGIR	23	8	76
19026567079	VAISHNAV M	25	8	76
19026567080	GURPREET SINGH	25	9	85.5
19026567081	SAMEER KATOCH	22	9	85.5
19026567082	SARBEENA K.P	23	6	57
19026567083	CHIRAG	23	8	76
19026567084	NIBRASUDDEEN A.P	25	9	85.5
19026567085	MANISH KUMAR	0	9	85.5
19026567086	NIVEDITA RIHAL	25	8	76
19026567087	AIDAN SINGH	22	8	76
19026567088	AMIT	21	7	66.5
19026567089	VISHAL TEJA BETHU	22	6	57
19026567090	AJAY MEENA	23	8	76
19026567091	MANVI	25	9	85.5
19026567092	DHARMENDRA MEENA	0	9	85.5
19026567093	MANISHA	24	7	66.5
19026567094	TESRING TONDUP	23	8	76
19026567095	PARUL CHAUHAN	23	7	66.5
19026567096	ANIMUL ISLAM	23	9	85.5
19026567097	MANAS JHA	22	8	76
19026567099	NEERAJ SINGH	22	8	76
19026567100	ANIL	25	6	57
19026567101	TUSHAR GAUTAM	25	7	66.5
19026567104	DIVYANSH PARETA	20	9	85.5

19026567105	BHUPENDAR KUMAR MEENA	20	9	85.5
19026567106	MOHIT KUMAR	22	8	76
19026567107	NISHA	25	9	85.5
19026567108	YASH PRATAP SINGH BAGRI	24	9	85.5
19026567109	MOHIT KUMAR	23	9	85.5
19026567110	SUBHAKAR KUMAR	22	9	85.5
19026567111	TANGULA DANIEL	21	9	85.5
19026567112	ANIL SINGH BOKTI	24	8	76
19026567113	SHIVALIKA	24	7	66.5
19026567114	RAMDEV	23	7	66.5
19026567115	ABHINANDAN KHAJURIA	25	8	76
19026567116	ARYAN PANDITA	23	7	66.5
19026567117	DEEPANSHU GANWAL	22	8	76
19026567118	SATISH KUMAR CHATURVEDI	25	10	95
19026567119	KIRTI KUMAR NAYAK	23	8	76
19026567120	PRINCE	23	9	85.5
19026567121	PRATEEK	23	9	85.5
19026567122	PRATEEK JINDAL	23	7	66.5
19026567123	DEENU	23	9	85.5
19026567124	ABDUR ROUF	21	8	76
19026567125	HARSHUL BHATIA	22	9	85.5
19026567126	YOGESH	22	8	76
19026567127	DEEPANSHU	24	10	95
19026567129	SOLLU HARISH	23	9	85.5

Level of CO Attainment

Sem	Attempts	Internal Assessment	Level of Attainment	University Examination	Level of Attainment	*Overall CO Attainment
III	No: of attempts >= 60%	117	3	119	3	3
	Total Attempts	124		124		
	% of attempts >= 60%	94.35		95.96		

*Overall Attainment = (20% of Internal Assessment Attainment + 80% of University Examination Attainment)

Course Level COPO Attainment Metrix

Sem III	PO1	PO2	PO3	PO4
CO1	3			
CO2	3		3	
CO3		3		
CO4			3	

% of attempts >= 60%	Level of Attainment	
>=80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

Program: B.Sc. (Hons.) Physics
Course Name: Mathematical Physics-III
Course Code: 32221401
Semester IV

Attainment (Direct Assessment)

Roll No.	Name	Internal Assessment Out of 25	University Exam. Out of Scale 10	University Exam. (Percentage = scale 10*9.5)
19026567001	KAVYA M S	22	8	76
19026567002	LINTU PAUL	23	9	85.5
19026567003	ASHBY SREEJAN	24	9	85.5
19026567004	ANAND C	20	7	66.5
19026567005	DEVVKRISHNA A	25	9	85.5
19026567006	VISHNUPRASAD T M	25	10	95
19026567007	ABHINAV KRISHNAN	25	10	95
19026567008	SIDHARTH K S	21	8	76
19026567009	ANANDAJITH T S	24	10	95
19026567010	MUHAMMED SWALIH VADAKKETHIL	20	9	85.5
19026567011	VIVEK G S	23	8	76
19026567012	ABHIRAM N R	25	9	85.5
19026567013	VEDASREE R	24	9	85.5
19026567014	HARIDEV M	25	9	85.5
19026567015	SHUBHAM SUNIL SHENDE	25	9	85.5
19026567016	ABHIRAM P P	23	9	85.5
19026567017	JOSWIN P JOY	20	8	76
19026567018	SAYANTH D. S.	22	9	85.5

19026567019	ANSHID P	23	9	85.5
19026567020	AMAN KUMAR BUJETHIA	23	8	76
19026567021	THANGJAM VICTOR	21	9	85.5
19026567022	SANDRA M P	24	9	85.5
19026567023	C V SREEJITH	25	10	95
19026567024	ABHISHEK RAMESH	23	8	76
19026567025	GAURAV SHARMA	21	9	85.5
19026567026	SANDESH S	22	9	85.5
19026567027	NITHIN V P	24	9	85.5
19026567028	ABHIRAM K	25	9	85.5
19026567029	URGEN SHERPA	21	8	76
19026567030	MANISH KUMAR MEENA	20	9	85.5
19026567031	PRAVEEN KUMAR MEENA	0	9	85.5
19026567032	KRISHNAKANT YOGI	22	9	85.5
19026567033	KARTHIK KRISHNAN	24	9	85.5
19026567035	TRILOK CHAND MEENA	18	9	85.5
19026567036	KAMAL DEEP MEENA	18	6	57
19026567037	ADHITH VINOD	23	6	57
19026567038	SACHET PAUL	22	7	66.5
19026567039	DEVAPRIYA N K	21	9	85.5
19026567040	MUHAMMED SALIH T	19	7	66.5
19026567041	MITHRAVINDA M M	24	8	76
19026567042	SARAGA S	25	7	66.5
19026567043	GOPIKA K NAMBIAR	25	9	85.5
19026567044	UMESH KASNIA	21	9	85.5
19026567045	ASWIN N K	25	9	85.5

19026567046	PRASHANT SINGH	21	8	76
19026567047	SUNNY SHARMA	21	7	66.5
19026567048	BALWANT SINGH	21	8	76
19026567049	HARSHAA	25	7	66.5
19026567050	GAUTAM KUMAR	23	9	85.5
19026567051	GOPIKA MADHU	25	8	76
19026567052	RAHUL PARMAR	22	9	85.5
19026567053	VARDAAN GUPTA	22	9	85.5
19026567054	ANIRUDH SASI	24	8	76
19026567055	NEELAMBARI S	24	9	85.5
19026567056	UDIT GARG	21	9	85.5
19026567057	DHANUR BHARDWAJ	21	8	76
19026567058	ARPIT ARYA	20	9	85.5
19026567059	ANKIT SHARMA	23	8	76
19026567060	ASWIN.K	25	8	76
19026567061	BHARTI	25	7	66.5
19026567062	MANISH JUGTAWAT	24	8	76
19026567063	HEMANKAR PAADAM	23	9	85.5
19026567064	JASVEER SINGH	18	7	66.5
19026567065	PARDEEP KUMAR	0	8	76
19026567066	ABHISHEK GURJAR	20	9	85.5
19026567067	PINTU CHOUDHARY	0	8	76
19026567068	NIRMAL KUMAR MEENA	20	8	76
19026567069	ARPIT NEGI	0	9	85.5
19026567070	RITIKA	25	7	66.5
19026567071	SHIJUL RAHMAN	22	9	85.5
19026567072	MANOJ KUMAR PRAJAPAT	25	8	76

19026567073	ANSHUL KASHYAP	22	8	76
19026567074	RAJ KUMAR	21	9	85.5
19026567075	NAVYUG GANGWAR	21	8	76
19026567076	POORNIMA P	24	9	85.5
19026567077	AMAN KUMAR	22	9	85.5
19026567078	MONU JANGIR	24	8	76
19026567079	VAISHNAV M	24	8	76
19026567080	GURPREET SINGH	25	9	85.5
19026567081	SAMEER KATOCH	20	9	85.5
19026567082	SARBEENA K.P	21	6	57
19026567083	CHIRAG	21	8	76
19026567084	NIBRASUDDEEN A.P	25	9	85.5
19026567085	MANISH KUMAR	0	9	85.5
19026567086	NIVEDITA RIHAL	25	8	76
19026567087	AIDAN SINGH	18	8	76
19026567088	AMIT	18	7	66.5
19026567089	VISHAL TEJA BETHU	21	6	57
19026567090	AJAY MEENA	21	8	76
19026567091	MANVI	25	9	85.5
19026567092	DHARMENDRA MEENA	20	9	85.5
19026567093	MANISHA	25	7	66.5
19026567094	TESRING TONDUP	20	8	76
19026567095	PARUL CHAUHAN	22	7	66.5
19026567096	ANIMUL ISLAM	24	9	85.5
19026567097	MANAS JHA	21	8	76
19026567099	NEERAJ SINGH	24	8	76
19026567100	ANIL	25	6	57
19026567101	TUSHAR GAUTAM	25	7	66.5
19026567104	DIVYANSH PARETA	21	9	85.5

19026567105	BHUPENDAR KUMAR MEENA	19	9	85.5
19026567106	MOHIT KUMAR	25	8	76
19026567107	NISHA	25	9	85.5
19026567108	YASH PRATAP SINGH BAGRI	20	9	85.5
19026567109	MOHIT KUMAR	25	9	85.5
19026567110	SUBHAKAR KUMAR	21	9	85.5
19026567111	TANGULA DANIEL	20	9	85.5
19026567112	ANIL SINGH BOKTI	23	8	76
19026567113	SHIVALIKA	23	7	66.5
19026567114	RAMDEV	23	7	66.5
19026567115	ABHINANDAN KHAJURIA	24	8	76
19026567116	ARYAN PANDITA	21	7	66.5
19026567117	DEEPANSHU GANWAL	20	8	76
19026567118	SATISH KUMAR CHATURVEDI	25	9	85.5
19026567119	KIRTI KUMAR NAYAK	20	8	76
19026567120	PRINCE	20	9	85.5
19026567121	PRATEEK	18	9	85.5
19026567122	PRATEEK JINDAL	22	7	66.5
19026567123	DEENU	22	8	76
19026567124	ABDUR ROUF	21	8	76
19026567125	HARSHUL BHATIA	18	7	66.5
19026567126	YOGESH	18	7	66.5
19026567127	DEEPANSHU	18	7	66.5
19026567129	SOLLU HARISH	22	8	76

Level of CO Attainment

Sem	Attempts	Internal Assessment	Level of Attainment	University Examination	Level of Attainment	*Overall CO Attainment
IV	No: of attempts \geq 60%	119	3	119	3	3
	Total Attempts	124		124		
	% of attempts \geq 60%	95.96		95.96		

*Overall Attainment = (20% of Internal Assessment Attainment + 80% of University Examination Attainment)

Course Level COPO Attainment Metrix

Sem IV	PO1	PO2	PO3	PO4
CO1		3		
CO2				3
CO3			3	
CO4				3
CO5		3		

% of attempts \geq 60%	Level of Attainment	
\geq 80 %	3	High
$>$ 70 to $<$ 80 %	2	Medium
60-70 %	1	Low

Program: B.Sc. (Hons.) Physics
Course Name: Quantum Mechanics Applications
Course Code: 32221501
Semester V

Attainment (Direct Assessment)

Roll No.	Name	Internal Assessment Out of 25	University Exam. Out of Scale 10	University Exam. (Percentage = scale 10*9.5)
19026567001	KAVYA M S	23	9	85.5
19026567002	LINTU PAUL	23	9	85.5
19026567003	ASHBY SREEJAN	22	9	85.5
19026567004	ANAND C	21	9	85.5
19026567005	DEVVKRISHNA A	25	10	95
19026567006	VISHNUPRASAD T M	25	10	95
19026567007	ABHINAV KRISHNAN	24	10	95
19026567008	SIDHARTH K S	21	9	85.5
19026567009	ANANDAJITH T S	24	10	95
19026567010	MUHAMMED SWALIH VADAKKETHIL	20	9	85.5
19026567011	VIVEK G S	23	9	85.5
19026567012	ABHIRAM N R	25	10	95
19026567013	VEDASREE R	24	9	85.5
19026567014	HARIDEV M	25	9	85.5
19026567015	SHUBHAM SUNIL SHENDE	25	10	95
19026567016	ABHIRAM P P	23	9	85.5

19026567017	JOSWIN P JOY	20	8	76
19026567018	SAYANTH D. S.	22	9	85.5
19026567019	ANSHID P	23	9	85.5
19026567020	AMAN KUMAR BUJETHIA	23	8	76
19026567021	THANGJAM VICTOR	21	9	85.5
19026567022	SANDRA M P	24	9	85.5
19026567023	C V SREEJITH	25	10	95
19026567024	ABHISHEK RAMESH	23	8	76
19026567025	GAURAV SHARMA	21	9	85.5
19026567026	SANDESH S	22	9	85.5
19026567027	NITHIN V P	24	9	85.5
19026567028	ABHIRAM K	25	9	85.5
19026567029	URGEN SHERPA	21	8	76
19026567030	MANISH KUMAR MEENA	20	9	85.5
19026567031	PRAVEEN KUMAR MEENA	0	7	66.5
19026567032	KRISHNAKANT YOGI	22	9	85.5
19026567033	KARTHIK KRISHNAN	24	9	85.5
19026567035	TRILOK CHAND MEENA	18	9	85.5
19026567036	KAMAL DEEP MEENA	18	6	57
19026567037	ADHITH VINOD	23	6	57
19026567038	SACHET PAUL	22	7	66.5
19026567039	DEVAPRIYA N K	21	9	85.5
19026567040	MUHAMMED SALIH T	19	7	66.5
19026567041	MITHRAVINDA M M	24	8	76
19026567042	SARAGA S	22	7	66.5
19026567043	GOPIKA K NAMBIAR	25	9	85.5

19026567044	UMESH KASNIA	21	9	85.5
19026567045	ASWIN N K	25	9	85.5
19026567046	PRASHANT SINGH	21	8	76
19026567047	SUNNY SHARMA	21	7	66.5
19026567048	BALWANT SINGH	21	8	76
19026567049	HARSHAA	25	7	66.5
19026567050	GAUTAM KUMAR	23	9	85.5
19026567051	GOPIKA MADHU	25	8	76
19026567052	RAHUL PARMAR	22	9	85.5
19026567053	VARDAAN GUPTA	22	9	85.5
19026567054	ANIRUDH SASI	24	8	76
19026567055	NEELAMBARI S	24	9	85.5
19026567056	UDIT GARG	21	9	85.5
19026567057	DHANUR BHARDWAJ	21	8	76
19026567058	ARPIT ARYA	20	9	85.5
19026567059	ANKIT SHARMA	23	8	76
19026567060	ASWIN.K	25	8	76
19026567061	BHARTI	25	7	66.5
19026567062	MANISH JUGTAWAT	24	8	76
19026567063	HEMANKAR PAADAM	23	9	85.5
19026567064	JASVEER SINGH	18	7	66.5
19026567065	PARDEEP KUMAR	0	8	76
19026567066	ABHISHEK GURJAR	20	9	85.5
19026567068	NIRMAL KUMAR MEENA	20	8	76
19026567069	ARPIT NEGI	0	9	85.5
19026567070	RITIKA	25	7	66.5
19026567071	SHIJUL RAHMAN	22	9	85.5

19026567072	MANOJ KUMAR PRAJAPAT	25	8	76
19026567073	ANSHUL KASHYAP	22	8	76
19026567074	RAJ KUMAR	21	9	85.5
19026567075	NAVYUG GANGWAR	21	8	76
19026567076	POORNIMA P	24	9	85.5
19026567077	AMAN KUMAR	22	9	85.5
19026567078	MONU JANGIR	24	8	76
19026567079	VAISHNAV M	24	8	76
19026567080	GURPREET SINGH	24	9	85.5
19026567081	SAMEER KATOCH	20	9	85.5
19026567082	SARBEENA K.P	21	6	57
19026567083	CHIRAG	21	8	76
19026567084	NIBRASUDDEEN A.P	25	9	85.5
19026567085	MANISH KUMAR	0	9	85.5
19026567086	NIVEDITA RIHAL	25	8	76
19026567087	AIDAN SINGH	18	8	76
19026567088	AMIT	18	7	66.5
19026567089	VISHAL TEJA BETHU	21	6	57
19026567090	AJAY MEENA	21	8	76
19026567091	MANVI	25	9	85.5
19026567092	DHARMENDRA MEENA	20	9	85.5
19026567093	MANISHA	25	7	66.5
19026567094	TESRING TONDUP	20	8	76
19026567095	PARUL CHAUHAN	22	7	66.5
19026567096	ANIMUL ISLAM	24	9	85.5
19026567097	MANAS JHA	21	8	76
19026567099	NEERAJ SINGH	24	8	76
19026567100	ANIL	22	6	57

19026567101	TUSHAR GAUTAM	25	7	66.5
19026567104	DIVYANSH PARETA	21	9	85.5
19026567105	BHUPENDAR KUMAR MEENA	19	9	85.5
19026567106	MOHIT KUMAR	25	8	76
19026567107	NISHA	25	9	85.5
19026567108	YASH PRATAP SINGH BAGRI	20	9	85.5
19026567109	MOHIT KUMAR	25	9	85.5
19026567110	SUBHAKAR KUMAR	21	9	85.5
19026567111	TANGULA DANIEL	20	9	85.5
19026567112	ANIL SINGH BOKTI	23	8	76
19026567113	SHIVALIKA	23	7	66.5
19026567114	RAMDEV	23	7	66.5
19026567115	ABHINANDAN KHAJURIA	24	8	76
19026567116	ARYAN PANDITA	21	7	66.5
19026567117	DEEPANSHU GANWAL	20	8	76
19026567118	SATISH KUMAR CHATURVEDI	25	9	85.5
19026567119	KIRTI KUMAR NAYAK	20	8	76
19026567120	PRINCE	20	9	85.5
19026567121	PRATEEK	18	9	85.5
19026567122	PRATEEK JINDAL	22	9	85.5
19026567123	DEENU	22	9	85.5
19026567124	ABDUR ROUF	21	9	85.5
19026567125	HARSHUL BHATIA	18	8	76
19026567126	YOGESH	18	8	76
19026567127	DEEPANSHU	18	8	76
19026567129	SOLLU HARISH	22	9	85.5

Level of CO Attainment

Sem	Attempts	Internal Assessment	Level of Attainment	University Examination	Level of Attainment	*Overall CO Attainment
V	No: of attempts >= 60%	119	3	118	3	3
	Total Attempts	123		123		
	% of attempts >= 60%	96.74		95.93		

*Overall Attainment = (20% of Internal Assessment Attainment + 80% of University Examination Attainment)

Course Level COPO Attainment Metrix

Sem V	PO1	PO2	PO3	PO4
CO1			3	
CO2		3		
CO3			3	
CO4				3
CO5				3

% of attempts >= 60%	Level of Attainment	
>=80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

Program: B.Sc. (Hons.) Physics
Course Name: Electromagnetic Theory
Course Code: 32221601
Semester VI

Attainment (Direct Assessment)

Roll No.	Name	Internal Assessment Out of 25	University Exam. Out of Scale 10	University Exam. (Percentage = scale 10*9.5)
19026567001	KAVYA M S	22	7	66.5
19026567002	LINTU PAUL	21	9	85.5
19026567003	ASHBY SREEJAN	20	8	76
19026567004	ANAND C	21	7	66.5
19026567005	DEVVKRISHNA A	23	7	66.5
19026567006	VISHNUPRASAD T M	24	8	76
19026567007	ABHINAV KRISHNAN	23	9	85.5
19026567008	SIDHARTH K S	21	7	66.5
19026567009	ANANDAJITH T S	24	7	66.5
19026567010	MUHAMMED SWALIH VADAKKETHIL	20	6	57
19026567011	VIVEK G S	23	7	66.5
19026567012	ABHIRAM N R	25	8	76
19026567013	VEDASREE R	24	7	66.5
19026567014	HARIDEV M	25	7	66.5
19026567015	SHUBHAM SUNIL SHENDE	25	8	76
19026567016	ABHIRAM P P	23	7	66.5
19026567017	JOSWIN P JOY	20	9	85.5

19026567018	SAYANTH D. S.	22	9	85.5
19026567019	ANSHID P	23	9	85.5
19026567020	AMAN KUMAR BUJETHIA	23	8	76
19026567021	THANGJAM VICTOR	21	9	85.5
19026567022	SANDRA M P	24	9	85.5
19026567023	C V SREEJITH	25	8	76
19026567024	ABHISHEK RAMESH	23	8	76
19026567025	GAURAV SHARMA	21	8	76
19026567026	SANDESH S	22	7	66.5
19026567027	NITHIN V P	24	8	76
19026567028	ABHIRAM K	25	9	85.5
19026567029	URGEN SHERPA	21	8	76
19026567030	MANISH KUMAR MEENA	20	7	66.5
19026567031	PRAVEEN KUMAR MEENA	0	6	57
19026567032	KRISHNAKANT YOGI	22	9	85.5
19026567033	KARTHIK KRISHNAN	24	9	85.5
19026567035	TRILOK CHAND MEENA	18	9	85.5
19026567036	KAMAL DEEP MEENA	18	6	57
19026567037	ADHITH VINOD	23	6	57
19026567038	SACHET PAUL	22	7	66.5
19026567039	DEVAPRIYA N K	21	9	85.5
19026567040	MUHAMMED SALIH T	19	7	66.5
19026567041	MITHRAVINDA M M	24	8	76
19026567042	SARAGA S	22	7	66.5
19026567043	GOPIKA K NAMBIAR	25	9	85.5
19026567044	UMESH KASNIA	21	9	85.5

19026567045	ASWIN N K	25	9	85.5
19026567046	PRASHANT SINGH	21	8	76
19026567047	SUNNY SHARMA	21	7	66.5
19026567048	BALWANT SINGH	21	8	76
19026567049	HARSHAA	25	7	66.5
19026567050	GAUTAM KUMAR	23	9	85.5
19026567051	GOPIKA MADHU	25	8	76
19026567052	RAHUL PARMAR	22	9	85.5
19026567053	VARDAAN GUPTA	22	9	85.5
19026567054	ANIRUDH SASI	24	8	76
19026567055	NEELAMBARI S	24	9	85.5
19026567056	UDIT GARG	21	9	85.5
19026567057	DHANUR BHARDWAJ	21	8	76
19026567058	ARPIT ARYA	20	9	85.5
19026567059	ANKIT SHARMA	23	8	76
19026567060	ASWIN.K	25	8	76
19026567061	BHARTI	25	7	66.5
19026567062	MANISH JUGTAWAT	24	8	76
19026567063	HEMANKAR PAADAM	23	9	85.5
19026567064	JASVEER SINGH	15	7	66.5
19026567065	PARDEEP KUMAR	0	8	76
19026567066	ABHISHEK GURJAR	20	9	85.5
19026567068	NIRMAL KUMAR MEENA	20	8	76
19026567069	ARPIT NEGI	0	9	85.5
19026567070	RITIKA	25	7	66.5
19026567071	SHIJUL RAHMAN	22	9	85.5
19026567072	MANOJ KUMAR PRAJAPAT	25	8	76

19026567073	ANSHUL KASHYAP	22	8	76
19026567074	RAJ KUMAR	21	9	85.5
19026567075	NAVYUG GANGWAR	21	8	76
19026567076	POORNIMA P	24	9	85.5
19026567077	AMAN KUMAR	22	9	85.5
19026567078	MONU JANGIR	24	8	76
19026567079	VAISHNAV M	24	8	76
19026567080	GURPREET SINGH	24	9	85.5
19026567081	SAMEER KATOCH	20	9	85.5
19026567082	SARBEENA K.P	21	6	57
19026567083	CHIRAG	21	8	76
19026567084	NIBRASUDDEEN A.P	25	9	85.5
19026567085	MANISH KUMAR	0	9	85.5
19026567086	NIVEDITA RIHAL	25	8	76
19026567087	AIDAN SINGH	18	8	76
19026567088	AMIT	12	7	66.5
19026567089	VISHAL TEJA BETHU	21	6	57
19026567090	AJAY MEENA	21	8	76
19026567091	MANVI	25	9	85.5
19026567092	DHARMENDRA MEENA	20	9	85.5
19026567093	MANISHA	25	7	66.5
19026567094	TESRING TONDUP	20	8	76
19026567095	PARUL CHAUHAN	22	7	66.5
19026567096	ANIMUL ISLAM	24	9	85.5
19026567097	MANAS JHA	21	8	76
19026567099	NEERAJ SINGH	24	8	76
19026567100	ANIL	22	6	57
19026567101	TUSHAR GAUTAM	25	7	66.5
19026567104	DIVYANSH PARETA	21	9	85.5

19026567105	BHUPENDAR KUMAR MEENA	19	9	85.5
19026567106	MOHIT KUMAR	25	8	76
19026567107	NISHA	25	9	85.5
19026567108	YASH PRATAP SINGH BAGRI	20	9	85.5
19026567109	MOHIT KUMAR	25	9	85.5
19026567110	SUBHAKAR KUMAR	21	9	85.5
19026567111	TANGULA DANIEL	20	9	85.5
19026567112	ANIL SINGH BOKTI	23	8	76
19026567113	SHIVALIKA	23	7	66.5
19026567114	RAMDEV	23	7	66.5
19026567115	ABHINANDAN KHAJURIA	24	8	76
19026567116	ARYAN PANDITA	21	7	66.5
19026567117	DEEPANSHU GANWAL	20	8	76
19026567118	SATISH KUMAR CHATURVEDI	25	7	66.5
19026567119	KIRTI KUMAR NAYAK	20	8	76
19026567120	PRINCE	20	8	76
19026567121	PRATEEK	18	7	66.5
19026567122	PRATEEK JINDAL	22	8	76
19026567123	DEENU	22	5	47.5
19026567124	ABDUR ROUF	21	5	47.5
19026567125	HARSHUL BHATIA	18	4	38
19026567126	YOGESH	19	8	76
19026567127	DEEPANSHU	17	7	66.5
19026567129	SOLLU HARISH	20	6	57

Level of CO Attainment

Sem	Attempts	Internal Assessment	Level of Attainment	University Examination	Level of Attainment	*Overall CO Attainment
VI	No: of attempts \geq 60%	118	3	112	3	3
	Total Attempts	123		123		
	% of attempts \geq 60%	95.93		91.05		

*Overall Attainment = (20% of Internal Assessment Attainment + 80% of University Examination Attainment)

Course Level COPO Attainment Metrix

Sem VI	PO1	PO2	PO3	PO4
CO1		3		
CO2			3	
CO3			3	
CO4				3

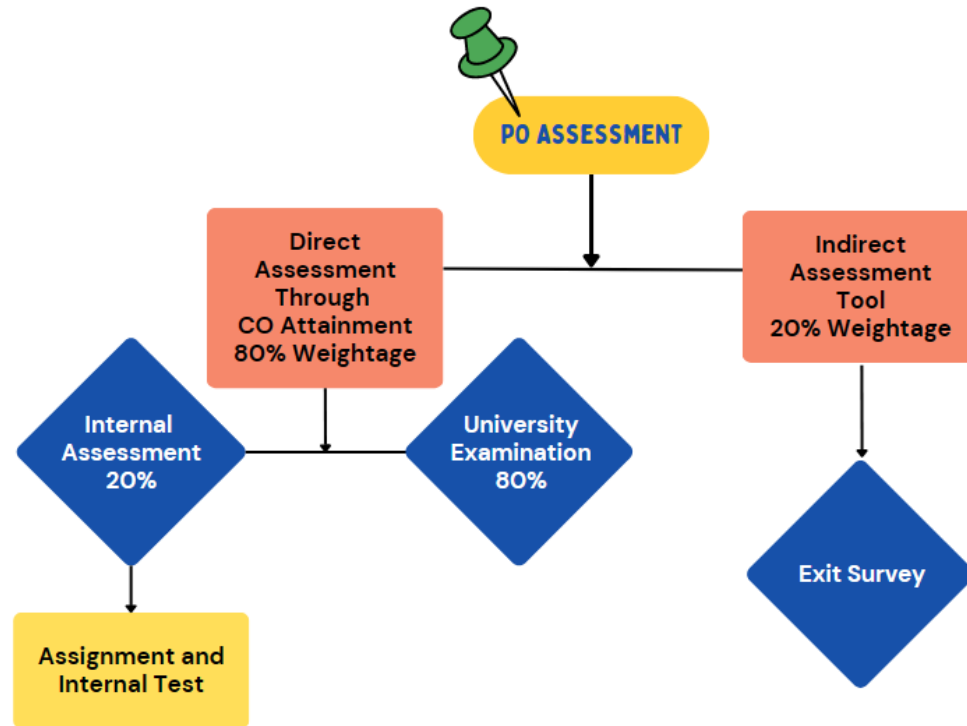
% of attempts \geq 60%	Level of Attainment	
\geq 80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low

Program level CO-PO matrix of one course from each semester:

Sem	Code	POs				
		Course	PO1	PO2	PO3	PO4
I	32221101	Mathematical Physics-I	3	3		
II	32221201	Electricity and Magnetism	3	3	3	
III	32221301	Mathematical Physics-II	3	3	3	
IV	32221401	Mathematical Physics-III		3	3	3
V	32221501	Quantum Mechanics Applications		3	3	3
VI	32221601	Electromagnetic Theory		3	3	3
Overall			3	3	3	3

% of attempts $\geq 60\%$	Level of Attainment	
$\geq 80\%$	3	High
>70 to $<80\%$	2	Medium
60-70 %	1	Low

PO Assessment Tools:



	Assessment Methods	Weightage 1	Weightage 2	Remarks
DIRECT ASSESSMENT	University Examination	80%	80%	Assessment through Cos attainment
	Assignments	20%		
	Internal Examination			
INDIRECT ASSESSMENT	Exit Survey	100%	20%	Direct evaluation to POs

Indirect PO Assessment (Through Exit Survey)

S. No.	Question	Score					POs	No: of Attempts ≥60% of Excellent Score	Total No. of Attempts
		Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)			
1	Syllabus is need based and suitable to the course.	18	76	19	10	-	PO1	113	123
2	The curriculum provides options for continuous assessment through quiz and exams	21	64	23	15	-	PO3	108	123
3	Curriculum developed and implementation have relevance to the local and national care needs	26	71	18	8	-	PO4	115	123
4	The curriculum contains sufficient elective papers	32	69	15	7	-	PO3	116	123
5	The curriculum facilitates adequate self-learning.	16	73	30	4	-	PO1	119	123
6	The curriculum provides the ability to express thoughts and ideas effectively in writing and orally.	23	61	38	1	-	PO2	122	123
7	The curriculum provides experiential learning through student seminar, group discussion, projects, field visits.	9	54	52	8	-	PO4	115	123

Indirect PO Assessment (Attainment Through Survey)

	PO1	PO2	PO3	PO4
No: of Attempts ≥60% of Excellent Score	232	122	224	230
Total No. of Attempts	246	123	246	246
% of attempts ≥ 60%	94.30	99.18	91.05	93.49
Attainment	3	3	3	3

PO Attainment Level:

	PO1	PO2	PO3	PO4
*PO Attainment	3	3	3	3
Direct Attainment	3	3	3	3
Indirect Attainment	3	3	3	3

*PO Attainment = (80% of Direct Attainment + 20% of Indirect Attainment)

% of attempts >= 60%	Level of Attainment	
>=80 %	3	High
>70 to <80 %	2	Medium
60-70 %	1	Low