

# Sir Padampat Singhania Education Centre Kamla Nagar, Kanpur

Lesson Plan
Session 2023- 2024
Class: 12th

Subject :Physics (042)

Book : NCERT

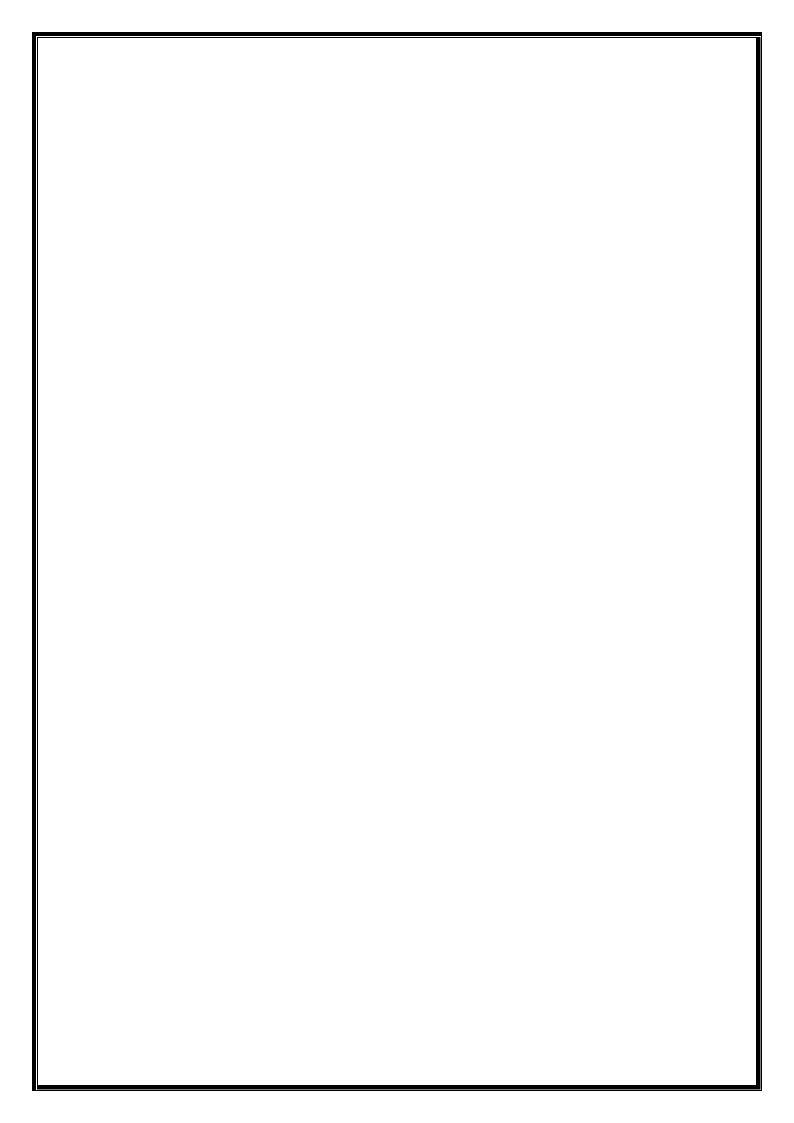
**Subject Coordinator** 

**Head of Department** 

Name: Mr. Sanjeev Kumar

Mr. Ashish Shukla Name : Mr. Neeraj Chaube

Sign: Sign:





Kamla Nagar, Kanpur

#### Yearly Syllabus/Planningoverview Session: 2023 - 2024

Subject: Physics Class: 12th No. of periods: 195

Month	Assessed in	Lesson/s to be covered (if partly covered, till where?)	Period Count
April		Chapter–1: Electric Charges and Fields Chapter–2: Electrostatic Potential and Capacitance	19
May		Chapter–3: Current Electricity	24
July		Chapter–4: Moving Charges and Magnetism Chapter–5: Magnetism and Matter	24
August		Chapter–6: Electromagnetic Induction Chapter–7: Alternating Current	24
September		Chapter–8: Electromagnetic Waves Chapter–9: Ray Optics and Optical Instruments Chapter–10: Wave Optics	23
October		Chapter–11: Dual Nature of Radiation and Matter Chapter–12: Atoms Chapter–13: Nuclei	20
November		Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits Revision: Electric Charges and Fields & Electrostatic Potential and Capacitance	20
December		Revision Pre- Board 1	24
January		Revision Pre-Board 2	17
February		Revision	

Subject coordinator: ASL & SKR HOD: NCE



Kamla Nagar, Kanpur

#### Monthly lesson plan overview

Session: 2023 - 2024

Book : NCERT No. of periods :

Date/	Week	Lesson/s to be covered in	Period	Principal's	
From	То	classroom	Count	(Yes/No) (Reason if No)	Sign
03/4/23	08/4/23	Electric charges, Conservation of charge, Coulomb's law-force between two- point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field.	3		
10/4/23	15/4/23	Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire.	6		
17/4/23	22/4/23	uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	4		
24/4/23	29/4/23	Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field.	6		
01/5/23	06/5/23	Conductors and insulators, free charges and bound charges inside a conductor.  Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only).	5		
08/5/23	13/5/23	Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear).	5		
15/5/23	20/5/23	electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell.	6		

22/5/23	27/5/23	combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.	6	
29/5/23	31/5/23	Numerical + Conceptual + Project work Allotment	2	
03/7/23	08/7/23	Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields.	6	
10/7/23	15/7/23	Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductorsdefinition of ampere.	6	
17/7/23	22/7/23	torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.  Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines.	6	
24/7/23	29/7/23	Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.	6	
31/7/23	05/8/23	Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction.	6	
07/8/23	12/8/23	Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance.	5	



Kamla Nagar, Kanpur

#### Monthly lesson plan overview

Session: 2023 - 2024

From Date : 03/04/23 To Date :31 /01/24 Subject :Physics Class : 12th

: NCERT Book No. of periods :

Date/ From	Week To	Lesson/s to be covered in classroom	Period Count	Status (Yes/No)	Principal's Sign	
11011	10			(Reason if No)	<b>S</b>	
		LCR series circuit (phasors only), resonance, power in AC circuits, power				
14/8/23	19/8/23	factor, wattless current. AC generator,	5			
		Transformer.				
		Basic idea of displacement current,				
		Electromagnetic waves, their				
		characteristics, their transverse nature				
01 /0 /00	06.10.100	(qualitative idea only). Electromagnetic				
21/8/23	26/8/23	spectrum (radio waves, microwaves,	6			
		infrared, visible, ultraviolet, X-rays,				
		gamma rays) including elementary facts				
		about their uses.				
		Ray Optics: Reflection of light, spherical				
		mirrors, mirror formula, refraction of				
		light, total internal reflection and optical				
28/8/23	02/9/23	fibers, refraction at spherical surfaces,	5			
	, ,	lenses, thin lens formula, lens maker's				
		formula, magnification, power of a lens, combination of thin lenses in contact,				
		refraction of light through a prism.				
		Optical instruments: Microscopes and				
04/9/23	09/9/23	astronomical telescopes (reflecting and	4			
0 1/ 5/ 20	05/5/20	refracting) and their magnifying powers.				
11/0/02		, , , , , , , , , , , , , , , , , , ,				
11/9/23	16/9/23	Half Yearly Examination	6			
10/0/02	02/00/02	II-16 V d F win - 4i	-			
18/9/23	23/09/23	Half Yearly Examination	5			
		Wave optics: Wave front and Huygen's				
		principle, reflection and refraction of				
		plane wave at a plane surface using				
		wave fronts. Proof of laws of reflection				
		and refraction using Huygen's principle.				
25/09/23	30/09/23	Interference, Young's double slit	6			
		experiment and expression for fringe width (No derivation final expression				
		only), coherent sources and sustained				
		interference of light, diffraction due to a				
		single slit, width of central maxima				
		(qualitative treatment only).				
		Chapter–11: Dual Nature of Radiation				
		and Matter Dual nature of radiation,				
		Photoelectric effect, Hertz and Lenard's				
02/10/23	07/10/23	observations; Einstein's photoelectric	6			
	0.,10,20	equation-particle nature of light.				
		Experimental study of photoelectric				
		effect Matter waves-wave nature of				
		particles, de-Broglie relation. Chapter–12: Atoms Alpha-particle				
		scattering experiment; Rutherford's				
09/10/23	14/10/23	model of atom; Bohr model of hydrogen	5			
		atom, Expression for radius of nth				
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<i> </i>    '	1	possible orbit, velocity and energy of			
]		electron in nth orbit, hydrogen line			
 	<u> </u>	spectra (qualitative treatment only).			
		Chapter–13: Nuclei Composition and			
.	1	size of nucleus, nuclear force Mass-			
16/10/23	21/10/23	energy relation, mass defect; binding	5		
10/10/40	21/10/20	energy per nucleon and its variation	5		
	1	with mass number; nuclear fission,			
<u></u> '	l'	nuclear fusion.			
,  <del> </del> '		Chapter–14: Semiconductor Electronics:			
	1	Materials, Devices and Simple Circuits			
	1	Energy bands in conductors,			
23/10/23	28/10/23	semiconductors and insulators	3		
∬ '	1	(qualitative ideas only) Intrinsic and			
<i> </i>    '	1	extrinsic semiconductors- p and n type,			
<i> </i>	1	p-n junction			
<u> </u>		Semiconductor diode - I-V			
		characteristics in forward and reverse			
30/10/23	04/11/23	bias, application of junction diode -diode	6		
<i> </i>	1	as a rectifier.			
<u> </u>		1			
06/11/23	11/11/23	Revision	4		
<b>/</b>  '	<b></b> '		<u> </u>		
12/11/02	10/11/02				
13/11/23	18/11/23	Revision	3		
<u> </u>	<del>                                     </del>	<del> </del>	<del>                                     </del>		
20/11/23	25/11/23	Revision	5		
	20,,	,			



Kamla Nagar, Kanpur

### Monthly lesson plan overview

Session: 2023 - 2024

From Date : 03/04/23 To Date :31 /01/24 Subject : Physics Class : 12th

Book No. of periods : : NCERT

Data /Wash					
То	Lesson/s to be covered in classroom	Period Count	Yes/No) (Reason if No)	Principal's Sign	
02/12/23	Electric Charges and Fields Electrostatic Potential and Capacitance	6			
09/12/23	Current Electricity	5			
16/12/23	Moving Charges and Magnetism Magnetism and Matter	6			
23/12/23	Electromagnetic Induction Alternating Current	6			
30/12/23	Electromagnetic Waves Ray Optics and Optical Instruments	5			
	02/12/23 09/12/23 16/12/23 23/12/23	To classroom  02/12/23 Electric Charges and Fields Electrostatic Potential and Capacitance  09/12/23 Current Electricity  16/12/23 Moving Charges and Magnetism Magnetism and Matter  23/12/23 Electromagnetic Induction Alternating Current  Electromagnetic Waves	To classroom Count  02/12/23 Electric Charges and Fields Electrostatic Potential and Capacitance 6  09/12/23 Current Electricity 5  16/12/23 Moving Charges and Magnetism Magnetism and Matter 6  23/12/23 Electromagnetic Induction Alternating Current Electromagnetic Waves 5	To classroom Count (Yes/No) (Reason if No)  02/12/23 Electric Charges and Fields Electrostatic Potential and Capacitance 6  09/12/23 Current Electricity 5  16/12/23 Moving Charges and Magnetism Magnetism and Matter 6  23/12/23 Electromagnetic Induction Alternating Current Electromagnetic Waves 5	

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		Wave Optics			
		Dual Nature of Radiation and Matter			
08/01/24	13/01/24	Atoms	6		
		Nuclei			
		Semiconductor Electronics:			
15/01/24	20/01/24	Materials, Devices and Simple Circuits	4		
10/01/21	20/01/21	iviateriais, bevices and simple circuits			
22/01/24	27/01/24	Sample paper solution	5		
22/01/24	27/01/24	+Quizzes	3		
20 /01 /24	21 /01 /04	Sample paper solution	2		
29/01/24	31/01/24	+Quizzes	2		
01 /00 /04	W:11	D			
01/02/24	Till exam	Revision and problem solving			
TATAL STATE			_		



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject : Physics **Class**: 12<sup>th</sup> No. of periods : 10

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
WEEK 1:	<b>03/04/23 to 08</b> /04/23	Period C	ount: 04
PD1	Electric charges,	Solved Examples	
PD2	Mahavir Jayanti		
PD3	Conservation of charge, Coulomb's law-force between two- point charges	Q 4	
PD4	forces between multiple charges; superposition principle and continuous charge distribution.	Solved Examples	

PD5	Electric field	Solved Examples	
PD6	Good Friday		
PD 7	Second Saturday		
	WEEK 2: 10/04/23 to 15/4/23	Period Co	ount: 06
PD1	electric field due to a point charge	Solved Examples	
PD2	electric field lines	Solved Examples	
PD3	electric dipole, electric field due to a dipole	Solved Examples	
PD4	torque on a dipole in uniform electric field.	Solved Examples	
PD5	Electric flux	Solved Examples	
PD6	Ambedkar Jayanti		
PD 7	statement of Gauss's theorem and proof	Solved Examples	

Subject coordinator

Supervisor

Principal/V. Principal



## Sir Padampat Singhania Education Centre

Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 20 24

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	<b>WEEK 3: 17</b> /4/23 to <b>22/04/23</b>	Period Co	unt: 05
PD1	Applications of Gauss's law to find field due to infinitely long straight wire	Solved Examples	
PD2	uniformly charged infinite plane sheet		
PD3	uniformly charged thin spherical shell (field inside and outside).	Solved Examples	
PD4	Numerical	Solved Examples	

PD5	Numerical	Solved Examples	
PD6	LAST FRIDAY OF RAMZAN		
PD 7	ID UL FITR		
	WEEK _4: 24/04/23 to 29/04/23	Period C	Count: 07
PD1	Electric potential, potential difference, Electric potential, potential difference		
PD2	Electric potential due to a point charge, a dipole and system of charges;		
PD3	a dipole and system of charges;	Solved Examples	
PD4	equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field.	Q.3	
PD5	Conductors and insulators, free charges and bound charges inside a conductor.	Solved Examples	
PD6	Dielectrics and electric polarization, capacitors and capacitance,	Solved Examples	
PD 7	combination of capacitors in series and in parallel,	Exercise 2.2 Q.3 and Q.4	



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 20 23 - 20 24

: Physics Subject Class: 12th No. of periods : 12

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _5: 01/05/23 to 06/05/23	Period C	ount: 06
PD1	capacitance of a parallel plate capacitor with and without dielectric medium between the plates,	Solved Examples	
PD2	energy stored in a capacitor (no derivation, formulae only).	Solved Examples	
PD3	Numerical and conceptual		
PD4	Numerical and conceptual	Solved Examples	

PD5	Numerical and conceptual	Solved Examples	
PD6	Budh Purnima		
PD 7	Note book correction	Solved Examples	
	WEEK _6: 08/05/23 to 13/05/23	Period C	Count:06
PD1	Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear).		
PD2	electrical energy and power, electrical resistivity and conductivity,	Solved Examples	
PD3	temperature dependence of resistance, Internal resistance of a cell		
PD4	combination of cells in series and in parallel, Kirchhoff's rules,	Solved Examples	
PD5	Numerical + Conceptual + Project work Allotment	Solved Examples	
PD6	Numerical + Conceptual + Project work Allotment		
PD 7	SECOND SATURDAY		



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _7: 15/05/23 to 20/05/23	Period Co	ount: 06
PD1	combination of cells in series and in parallel,	Solved Examples	
PD2	Kirchhoff's rules, Wheatstone bridge.		
PD3	Meter bridge and its application		
PD4	Numerical		

PD5	Numerical		
PD6	Conceptual		
PD 7	ASSIGNMENT		
	WEEK _8: 22/5/23 to 27/5/23	Period Co	ount: 06
PD1	Wheatstone bridge.		
PD2		Q.3, 4 and 6	
PD3	Application of Heron`s Formula Exercise 12.2 Q.1, 2 and 3	Q. 4, 5 and 6	
PD4	Exercise 12.2 Q.7, 8 and 9	Solved examples	
PD5	Completion of work	Solved examples	
PD6	Completion of work	Solved examples	
PD 7	ASSIGNMENT		



# Sir Padampat Singhania Education Centre Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject : Physics No. of periods **Class**: 12<sup>th</sup> : 08

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _7: 29/05/23 to 31/05/23	Period Co	ount: 02
PD1	Ch.5 Introduction to Euclid`s Geometry Axioms and Postulates	Learn the axioms	
PD2	Exercise 5.1 Q.1, 2, 3 and 4 Exercise 5.1 Q.5, 6, 7 Exercise 5.2 Q.1 and 2	And Postulates	
PD3	SUMMER VACATION		
PD4	SUMMER VACATION		

SUMMER VACATION		
SUMMER VACATION		
SUMMER VACATION		
WEEK _8: 3/7/23 to 08/7/23	Period Cou	ınt: 06
Concept of magnetic field		
. Biot - Savart law and its application to current carrying circular loop.	Solved Examples	
, Oersted's experiment Ampere's law and its applications to infinitely long straight wire.	Solved Examples	
Straight solenoid (only qualitative treatment),	Solved Examples	
force on a moving charge in uniform magnetic and electric fields.		
Force on a current-carrying conductor in a uniform magnetic field,		
2 <sup>nd</sup> Saturday		
	SUMMER VACATION  WEEK _8: 3/7/23 to 08/7/23  Concept of magnetic field  Biot - Savart law and its application to current carrying circular loop.  Oersted's experiment Ampere's law and its applications to infinitely long straight wire.  Straight solenoid (only qualitative treatment),  force on a moving charge in uniform magnetic and electric fields.  Force on a current-carrying conductor in a uniform magnetic field,	SUMMER VACATION  SUMMER VACATION  WEEK _8: 3/7/23 to 08/7/23  Period Cou  Concept of magnetic field  . Biot - Savart law and its application to current carrying circular loop.  , Oersted's experiment Ampere's law and its applications to infinitely long straight wire.  Straight solenoid (only qualitative treatment),  force on a moving charge in uniform magnetic and electric fields.  Force on a current-carrying conductor in a uniform magnetic field,



Kamla Nagar, Kanpur

#### Weekly planning overview Session: 2023 - 2024

No. of periods : 14 **Subject**: Physics Class: 12th

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _9: 10/7/23 to 15/7/23	Period Co	ount: 07
PD1	force between two parallel current-carrying conductors- definition of ampere.	Solved Examples	
PD2	torque experienced by a current loop in uniform magnetic field;		
PD3	Current loop as a magnetic dipole and its magnetic dipole moment,	Solved Examples	
PD4	moving coil galvanometer	Solved examples	

PD5	current sensitivity and conversion to ammeter and voltmeter.	Solved examples	
PD6	bar magnet as an equivalent solenoid (qualitative treatment only),	Completion of work	
PD 7	magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only),		
	WEEK _10: 17/7/23 to 22/7/23	Period Co	ount: 07
PD1	torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines.		
PD2	Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.	Solved examples	
PD3	Electromagnetic induction	Solved examples	
PD4	Numerical and conceptual	Solved examples	
PD5	Faraday's laws,	Solved examples	
PD6	induced EMF and current;	Solved examples	
PD 7	Lenz's Law,		



Kamla Nagar, Kanpur

#### Weekly planning overview Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _11: 24/7/23 to 29/7/23	Period Co	ount: 07
PD1	Self and mutual induction.	Solved examples	
PD2	Alternating currents	Solved examples	

PD3	peak and RMS value of alternating current/voltage	Solved examples	
PD4	reactance and impedance.	Solved examples	
PD5	LCR series circuit (phasors only)	Solved examples	
PD6	R circuit	Solved examples	
PD 7	L circuit		
	WEEK _12: 31/7/23 to 05/8/23	Period Co	ount: 07
PD1	C circuit		
PD2	L-R circuit	Solved examples	
PD3	L-C circuit	Solved examples	
PD4	C - R circuit		
PD5	L -C- R circuit		
PD6	resonance		
PD 7	power in AC circuits		



Kamla Nagar, Kanpur

#### Weekly planning overview Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
WEEK _13: 07/8/23 to 12/8/23		Period Count: 06	
PD1	power in R circuits	Solved examples	
PD2	power in C circuits	Completion of sheet	

		<del></del>	1
PD3	power in L circuits	Solved Examples	
PD4	power in RC circuits		
PD5	power in L - C circuits		
PD6	power in L - R circuits		
PD 7	2 <sup>nd</sup> Saturday		
	WEEK _14: 14/8/23 to 19/8/23	Period Count: 06	
PD1	power in LCR circuits	Solved Examples	
PD2	power factor, wattless current.	Solved Examples	
PD3	Independence day		
PD4	AC generator		
PD5	Transformer		
PD6	Notebook correction		
PD 7	Numerical and conceptual		



Kamla Nagar, Kanpur

#### Weekly planning overview Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _15: 21/8/23 to 26/8/23	Period Co	ount: 07
PD1	Basic idea of displacement current	Solved Examples	
PD2	Electromagnetic waves, their characteristics,		

PD3	their transverse nature (qualitative idea only).		
PD4	Electromagnetic spectrum (radio waves, microwaves, infrared, visible,)		
PD5	ultraviolet, X-rays, gamma rays		
PD6	elementary facts about uses of electromagnetic waves.	Solved Examples	
PD 7	Revision		
	WEEK _16: 28/8/23 to 02/9/23	Period Co	ount: 06
PD1	Ray Optics, refraction of light through a prism.	Solved Examples	
PD2	spherical mirrors, Reflection of light, mirror formula		
PD3	Rakshabandhan		
PD4	refraction of light, lens maker's formula, magnification, power of a lens, total internal reflection and optical fibers		
PD5	refraction at spherical surfaces, lenses, thin lens formula, combination of thin lenses in contact,		
PD6	Optical instruments: Microscopes		
PD 7	and astronomical telescopes (reflecting and refracting) and their magnifying powers.		



Kamla Nagar, Kanpur

Weekly planning overview Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _17: 4/9/23 to 9/9/23	Period Co	ount: 04
PD1	Revision	Solved Examples	
PD2	Teachers Day	Solved Examples	

PD3	Revision	Solved Examples	
PD4	Revision		
PD5	Janmashtami		
PD6	Half yearly exams	Solved Examples	
PD 7	Half yearly exams		
	WEEK _18: 11/9/23 to 16/9/23	Period Co	ount: 07
PD1	Half yearly exams	Solved Examples	
PD2	Half yearly exams	Solved Examples	
PD3	Half yearly exams		
PD4	Half yearly exams		
PD5	Half yearly exams		
PD6	Half yearly exams		
D 7	Half yearly exams		



Kamla Nagar, Kanpur

#### Weekly planning overview Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _19: 18/9/23 to 30/9/23	Period (	Count: 13
PD1	Half yearly exams		
PD2	Half yearly exams		

Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts.		
Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only)		
coherent sources and sustained interference of light		
diffraction due to a single slit, width of central maxima (qualitative treatment only).		
BARAWAFAT		
WEEK _20: 2/10/23 to 7/10/23 Period Count: 06		
GANDHI JAYANTI		
Dual Nature of Radiation and Matter Dual nature of radiation		
Photoelectric effect, Hertz and Lenard's observations		
Einstein's photoelectric equation-particle nature of light		
Experimental study of photoelectric effect Matter waves-wave nature of particles		
de-Broglie relation.		
Numerical and conceptual		
	reflection and refraction of plane wave at a plane surface using wave fronts.  Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only)  coherent sources and sustained interference of light  diffraction due to a single slit, width of central maxima (qualitative treatment only).  BARAWAFAT  WEEK _20: 2/10/23 to 7/10/23  GANDHI JAYANTI  Dual Nature of Radiation and Matter Dual nature of radiation  Photoelectric effect, Hertz and Lenard's observations  Einstein's photoelectric equation-particle nature of light  Experimental study of photoelectric effect Matter waves-wave nature of particles  de-Broglie relation.	



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _21: 09/10/23 to 14/10/23	Period C	ount: 06
PD1	Atoms Alpha-particle scattering experiment	Solved Examples	

PD2	Rutherford's model of atom; Bohr model of hydrogen atom	"	
PD3	Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit	,,	
PD4	hydrogen line spectra (qualitative treatment only).	"	
PD5	Nuclei Composition and size of nucleus, nuclear force Mass-energy relation, mass defect		
PD6	binding energy per nucleon		
PD 7	2 <sup>nd</sup> SATURDAY		
	WEEK 22: 16/10/23 to 21/10/23	Period C	Count: 07
PD1	Variation of binding energy with mass number;		
PD2	nuclear fission, nuclear fusion.		
PD3	Note book correction	Solved examples	
PD4	Numerical	"	
PD5	conceptual	"	
PD6	Numerical	"	
PD 7	revision	,,	



3

### Weekly planning overview

Session: 2023 - 2024

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
WEEK 23: 23/10/23 to 28/10/23		Period Co	ount: 03
PD1	DUSSEHRA		

PD2	DUSSEHRA		
PD3	Semiconductor Electronics: Materials	Solved examples	
PD4	Devices and Simple Circuits	,,	
PD5	Energy bands in conductors, semiconductors and insulators	"	
PD6	Intrinsic and extrinsic semiconductors		
PD 7	p and n type, p-n junction		
	WEEK 24: 30/10/23 to 04/11/23	Period C	Count: 07
PD1	Semiconductor diode - I-V characteristics in forward and reverse bias	Solved examples	
PD2	application of junction diode -diode as a rectifier.		
PD3	Circuit Diagram practice		
PD4	Numerical		
PD5	Completion of work		
PD6	Numerical		
PD 7	Completion of work		



Kamla Nagar, Kanpur

#### Weekly planning overview Session: 2023 - 2024

Subject : Physics No. of periods Class: 12th : 09

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK 25:06/11/23 to 11/11/23	Period C	Count: 04
PD1	Workbook practice starts	Solved examples	

PD2	Workbook practice starts	"	
PD3	Assignment sheet	"	
PD4	Completion of work	,,	
PD5	Diwali Holidays		
PD6	Diwali Holidays	"	
PD 7	Diwali Holidays	"	
	WEEK 26: 13/11/23 to 18/11/23	Period C	Count: 05
	-		
PD1	Diwali Holidays		
PD1 PD2	Diwali Holidays  Diwali Holidays		
PD2	Diwali Holidays		
PD2 PD3	Diwali Holidays  Revision : Electrostatics	 Examples	
PD2 PD3 PD4	Diwali Holidays  Revision : Electrostatics  Revision : Electrostatics	Examples	
PD2 PD3 PD4 PD5	Diwali Holidays  Revision : Electrostatics  Revision : Electrostatics  Revision : Electrostatics	Examples  ,,	



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject No. of periods : Physics Class: 12th : 12

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK 27: 20/11/23 to 25/11/23	Period C	Count: 06
PD1	Revision : Current Electricity		

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PD2	Revision : Current Electricity		
PD3	Revision : Current Electricity		
PD4	Revision : Current Electricity		
PD5	Revision : Current Electricity		
PD6	Revision : Current Electricity		
PD 7	Guru Teg bahadur Jayanti		
	WEEK 28: 27/11/23 to 2/12/23	Period Co	ount: 06
PD1	Guru Nanak Jayanti		
PD2	Revision : Magnetic effects of Current	,,	
PD3	Pre – Board 01	,,	
PD4	Pre – Board 01	,,	
PD5	Pre – Board 01		
PD6	Pre – Board 01		
PD 7	Pre – Board 01		



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject : Physics **Class**: 12<sup>th</sup> No. of periods : 13

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _29: _04/12/23 to 09/12/23	Period	Count: 06
PD1	Pre – Board 01		

PD2	Pre – Board 01		
PD3	Pre – Board 01		
PD4	Revision : Magnetic effects of Current		
PD5	Revision : Magnetic effects of Current		
PD6	Revision : Magnetic effects of Current		
PD 7	Revision : Magnetic effects of Current		
	WEEK 30: 11/12/23 to 16/12/23	Period (	Count: 07
PD1	Revision : Electro Magnetic Induction		
PD2	Revision : Electro Magnetic Induction		
PD3	Revision : Electro Magnetic Induction		
PD4	Revision : Electro Magnetic Induction		
PD5	Revision : Alternating Current		
PD6	Revision : Alternating Current		
PD 7	Revision : Alternating Current		



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject No. of periods : Physics **Class**: 12<sup>th</sup> : 13

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK 31: 18/12/23 to 23/12/23	Period C	Count: 07
PD1	Revision : Alternating Current	Solved examples	

PD2	Revision : Alternating Current	"	
PD3	Revision : Ray optics	,,	
PD4	Revision : Ray optics	"	
PD5	Revision : Ray optics	"	
PD6	Revision : Ray optics	"	
PD 7	Revision :Wave optics	"	
	WEEK 32:25/12/23 to 30/12/23	Period C	Count: 06
PD1	Christmas		
PD2	Second Pre - Board	Solved examples	
PD3	Second Pre - Board	"	
PD4	Second Pre - Board	"	
PD5	Second Pre - Board	"	
PD6	Second Pre - Board	"	
PD 7	Second Pre - Board	"	



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject : Physics **Class**: 12<sup>th</sup> No. of periods : 13

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK 33: 08/1/24 to 13/01/24	Period C	ount: 07
PD1	Second Pre - Board	Solved examples	

PD2	Second Pre - Board	,,	
PD3	Second Pre - Board	,,	
PD4	Second Pre - Board	"	
PD5	Second Pre - Board	,,	
PD6	Revision -Atom and Nuclei	"	
PD 7	Revision -Atom and Nuclei	,,	
	WEEK 34:15/1/23 to 20/1/24	Period Co	ount: 06
PD1	Makar sankranti		
PD2	Revision: Semi - Conductor Physics and Devices		
PD3	Revision: Semi- Conductor Physics and Devices		
PD4	Revision: Semi -Conductor Physics and Devices		
PD5	Revision: Semi -Conductor Physics and Devices		
PD6	Sample paper		
PD 7	Sample paper		



Kamla Nagar, Kanpur

### Weekly planning overview

Session: 2023 - 2024

Subject : Physics **Class**: 12<sup>th</sup> No. of periods : 08

Period	Topic/s to be covered in classroom	Homework	Status (Yes/No) (Reason if No)
	WEEK _: 22/01/24 to 27/01/24	Period (	Count:06
PD1	Revision For Finals		

PD2	Revision For Finals		
PD3	Revision For Finals		
PD4	Revision For Finals		
PD5	Revision For Finals		
PD6	Republic Day		
PD 7	Revision For Finals		
	WEEK _: 29/01/24 to 31/01/24	Period Co	ount:02
PD1	Revision For Finals		
111	Revision for finals		
PD2	Revision For Finals		
PD2	Revision For Finals		
PD2 PD3	Revision For Finals		
PD2 PD3 PD4	Revision For Finals		
PD2 PD3	Revision For Finals		

HOD: