

XII - PHYSICS YEAR WISE PUBLIC QUESTION PAPER (FROM MARCH 2006 TO SEP 2013)

PART - II

Ln.	Q.No	Mar-06	Jun-06	Oct-06	Mar-07	Jun-07	Oct-07	Mar-08	Jun-08	Oct-08	Mar-09	Jun-09	Oct-09
1	31	coulomb - define	Gauss law	Gauss law	potenatial at a point - Def	coulomb law	application of capacitor	1.59 (I -part)	electric flux & unit	Corona discharge	Gauss Law	Define electric potential	elect dipole, dipole mom
1	32	car - lighting	car - lighting	electric polarisation	polar molecule -eg	corona discharge uses	Additive nature of charge	electrstatic shielding	microwave oven	Problem Effect Capacitance	capacitor + capacitance	why -safer during lightning	dielect polariza
2	33	ohm's law	3 uses of super conudctors	3 uses of super conudctors	drift velocity	3 uses of super conudctors	ohm's law	2.5	Temperature co-efficient	Drift Velocity	2.6	2.5	2.34
2	34	new Problem Kirchoff's II law	2.32	2.1	2.39	2.5	2.5	mobility & unit	D.b ele.power & energy	emf & P.D. distinguish	Kirchhoff's II Law	D/b-electric power& energy	ohm's law
2	35	Faraday's laws of 1,2	Kirchoff's 1. current 2. voltage law	mobility + unit	Kirchoff's voltage law	emf-PD differences	3 uses of super conductors	state kirchhoff's current & voltage law	2.9	Uses of Secondary cells	Mobility + unit	Drift velocity	Drift velocity
3	36	Peltier - joule differences	Peltier coefficient + unit	limitations of cyclotron	current sens volt. Sens. realtion	fiament - nichrome why ?	3.2	Define ampere	ampere -Define	Def. Neutral Temperature	Ampere's circuital law	galvanomet to ammeter & voltmeter	How do increase current sens.
4	37	methods of inducing emf	Faraday's laws of e.m. inudction	quality factor	Flemings R.H rule	Faraday em law	DC ammeter can not read a.c. Why ?	4.2	d.b AF & RF choke	Lenz's law	4.4	define self induction	Fleming's right hand rule
4	38	4.4	4.2	new Problem $e = - Blv$	Problem A-4.2	Define I - AC	Faraday's EM law	electromag. Induction	4.7	Problem Transformer efficiency	Fleming's right hand rule	4.7	rms value of AC
5	39	emission - absorption spectra	sky is blue - why	band emission spectrum & eg	Tyndall scattering	optic axis of a crystal	Tyndal Scattering	5.6	on what factor does the amount of optical rotation	IR rays 3 - uses	5.8	Tyndall scattering	5.49
5	40	5.8	5.2	5.47	5.5	5.5	5.47 similar	specific rotation	5.45	Conditions to achieve Total int. reflecn.	why-centre of the newton ring dark	5.45	state Huygen's principle

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Ln.	Q.No	Mar-10	10-Jun	Oct-10	Mar-11	Jun-11	Sep-11	Mar-12	Jun-12	Sep-12	Mar--13	Jun-13	Sep-13
1	31	coulomb law	electric lines of force - properties	coulomb - define	Gauss Law	electric dipole + dipole moment	coulomb law	application of capacitor	coulomb law	electric lines of force - properties	coulomb - define	Define electric potential	Define electric potential
1	32	why -safer during lightning	coulomb law	non-polar molecule -eg	Uses of capacitors	non-polar molecule -eg	dielectric polarization	1.7 (i)	Def. Electric flux Unit	capacitor + capacitance	polar molecule -eg	Effect. Capac. Created problem	non-polar molecule -eg
2	33	Drift Velocity	2.38	Drift Velocity	Drift Velocity	2.1	Drift Velocity Unit	Kirchhoff's Volt Law	emf & P.D. distinguish	2.5	ohm's law	Drift Velocity Unit	2.5
2	34	ohm's law	changes at transition temp.	2.5	Calculate I New problem	emf & P.D. distinguish	2.5	Appln Sec cell	ohm's law	Define Resistivity	emf & P.D. distinguish	3 Applns. Super Conductors	What is super Conductivity?
2	35	2.1	Faraday's laws of 1,2	Faraday's laws of 1	Temp. co-effi Resist	Kirchoff's voltage law	Appln Sec cell	Def. transition temp.	2.12 (a part)	ohm's law	2.32	Faraday's laws of 1	e.power & e. energy distinguish
3	36	filament - nichrome why ?	limitations of cyclotron	Flemings L.H rule	Tangent law	Peltier coefficient + unit	Def Ampere	Peltier coefficient + unit	3.4	Thomson coefficient + unit	limitations of cyclotron	Galvano met. Current sensit Vs volt sensit	3.12
4	37	4.6model	4.2	methods of inducing emf	4.2	Flemings R.H rule	Cap block DC but allow AC	methods of inducing emf	define unit of self induction	Efficiency of a transformer	4.3 (i)	4.6	Faraday's E.M. induction laws
4	38	Fleming's right hand rule	Lenz's law	4.2	methods of inducing emf	quality factor	4.6	4.6	quality factor	quality factor	rms value of AC	quality factor	4.7
5	39	specific rotation	optic axis of a crystal	Tyndall scattering	Brewster's law	5.45	state Huygen's principle	state Huygen's principle	D/b fresnel & franunhofer	Tyndall scattering	5.40.	why-centre of the newton ring dark	sky is blue - why
5	40	D/b fresnel & franunhofer	Tyndall scattering	5.4	5.2	Factors depend Opt rotat	5.5	Young d.slit D= 1m, d=1.9mm, $\beta=0.35$, $\lambda = ?$	5.4	5.49	Fraunhofer lines - Def.	Tyndall scattering	Specific Rotation Define.

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6	41	conditions for laser action	millikan oil drop principle	characteristics of laser	Mosley's law	conditions for laser action	holography	moseley's law & equation	important fact by laue experiment	Rutherford atom model & 1 draw back	6.9	characteristics of laser	calcu short wavelen for lyman
6	42	6.52	6.9	6.7	ionisation potential	6.53	laue xpt - 2 facts	medical app. Of laser	laser app. industry	6.9	Moseley's law	ionization potential energy	medical application of laser
7	43	electron microscope limitations	3 uses of photo electrons	inertial, Non-Intertial frames	electron microscope uses	7.5	postulates of spl. Theory of relativity	interital & non-inertial frame	7.5	W= 1.8 eV Calculate threshold wavelength	limitation of electron microscope	postulates of spl. theory of relativity	stopping potential
8	44	α - Decay + eg	3 properties of neutrons	BE/A curve -3 conclusions	8.62	roentgen	8.51	curie	cosmic ray	Define Rontgen	breeder reactor	8.61	Binding energy
8	45	pair production, annihilation	pair production, annihilation	define curie	pair production annihilation	leptons	use of control rod + Examples	properties of neutron	properties of nuclear force	Def. Critical mass and critical size	properties of nuclear force	classify the neutrons - by KE	8.58
9	46	intrinsic semiconductor eg	CE circuit input impedance	Zener breakdown	What is LED + 1 use	Zener breakdown	advantage of -ve feed back	circuit configurate - C.C mode [NPN]	intergrated circuit	Output impedance of a transistor	9.62	9.65	method of doping
9	47	new - feedback	9.3	new - feedback problem	feed back 9.52	OP-AMP circuit problem - new	Barkhousan conditions	Zener break down	extrinsic semicondu	Define doping & methods	Draw-summing amplifier	what is IC	zener diode + symbol
9	48	NPN-CE circuit	OR gate diode circuit	NPN-CE circuit	bandwith of amplifier	uses of -ve feedback	important parameters of an OP-AMP	9.2	advantage of negative feedback	Barkhausen Condition for oscillation	rectification	Barkhausen conditions	output impedance
9	49	Uses of IC	Extrinsic semiconductor.eg	3Uses of IC	Rectification	AND circuit with D.R	9.5	de-morgan's theorem	9.8 (a)	9.61	De-morgan's theorems	use of CRO	9.3
10	50	Modulation factor	3 uses of radar	what is fax - its use	digital commun merits.	Skip distance	necessity of modulation	skip distance	modulation factor.	Fiber optic commn	advantages of frequency modulation	Skip distance	modulation factor

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6	41	characteristics of laser	characteristics of laser	ionisation potential	6.9	Like 6.50	Draw back Sommerfeld model	millikan oil drop principle	characteristics of laser	characteristics of laser	6.50.	Applns of Moseley's law	Conditions for laser action
6	42	6.52	6.9	6.9	Moseley's law	3 Appln of laser in Medici	3 Appln of laser in Medici	6.1	6.9	Applns of Moseley's law	Important facts of Laue exp.	6.52	6.49
7	43	appli. Photoelectric cell	concept of time	appl Ph electric cell	postulates of special theory of relativity	7.6 (ii)	Diff bet inertial, Non iner frames	limitation of electron microscope	appli. Photoelectric cell	stopping potential	postulates of special theory of relativity	Def. Threshold freq	Define - stopping potential
8	44	8.52	8.58	mass defect	Proton-Proton cycle	3 Properties of Neutrons	3 Properties of Neutrons	Select Isotopes Isobar isotone	8.52 model	Def. Artificial radioactivity	alpha decay example	8.47	define curie
8	45	define curie	cosmic ray	define curie	Like 8.52	Use of Nuclear reactor	Created Probl Avagadro number	Note on Leptons	Def. Artificial radioactivity	8.52	Use of Nuclear reactor	define curie	state law of Radio active disint. Law.
9	46	9.55	de-morgan's theorem	extrinsic semi conductor	9.4	Advant of IC	Zener diode	Disting Avalanche & Zener breakdown	Zener breakdown	9.4	9.50.	method of doping	Extrinsic Semi conductor
9	47	9.3	9.5	essential part of LC oscillator	Extrinsic Semi conductor	I/P impeded in CE	Def Band width of amplifier	advantage of -ve feed back	Def Band width of amplifier	Def Band width of amplifier	advantage of -ve feed back	Zener breakdown	NOT gate circuit using transistor
9	48	energy dia. Of N&P type semi. Cond	3Uses of IC	9.3	Inv OP-Amp Circu Diagram	OP AMP diff amp circuit	NOT gate circuit using transistor	De-morgan's theorems	Universal gates why?	What is an IC?	OP AMP summing amp circuit	OP AMP summing amp circuit	Universal gates why?
9	49	Barkhausen Condition for oscillation	NOT gate circuit using transistor	zener diode	Advantages - ve feed back	9.57	9.52	9.8 (a)	how is biasing provided?	9.50.	De-morgan's theorems	IB=30 μA, IC=0.97 mA, α=?	$\overline{(\overline{A} + B)}(A + B) = B$
10	50	modulation factor	digital commun merits.	Skip distance	Def Skip Distance	Modulation factor	Diff types of radio wave propagation	Def. Amplitude modulation	Skip distance	What is interlaced scanning?	digital commun merits.	Modulation factor	Skip distance

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PART - III

Ln	Q.No	Mar-06	Jun-06	Oct-06	Mar-07	Jun-07	Oct-07	Mar-08	Jun-08	Oct-08	Mar-09	Jun-09	Oct-09
1	51	1.13	1.56	1.59	Electric lines of force - properties	1.54 / 1.9	electric lines of force - properties	electric lines of force - properties	1.49	1.54	elect poten energy + obtain expression	1.16	elect poten energy + obtain expression
2	52	mobility - Definition I-V relation	Farad II law of Electroly + verificatn	Resistors in parallel	potentimeter E1 / E2	Kirchoff's II law + Explanation	principle of a potentiometer	Wheatst brid cond for bridge bala	det.- internl resis of a cell - voltmeter	Daniel cell	2.2	wheatstones bridge	det.- internl resis of a cell - voltmeter
2	53	Wheat stone bridge	Wheshstone bridge	Wheshstone bridge	2.12 / 2.34	Lechalanche cell	lead acid accumulater	Faraday's II law state & verify	faraday's I Law state & verified	5 Uses of super conductors	applications of super-conduor	Daniel cell	faraday's I law state verify
3	54	3.3	3.36	3.3	3.16	magnetic lorentz foce area	3.14	Galvanometer into an ammeter	3.18	T.G	3.16/3.30	state & explain Biot-savart law	3.13 / 3.35
4	55	AC circuit having L only	losses in a transformer	losses in a transformer	applications of Eddy current	induced emf by changing area	Induced emf by changing area	realtion - current & volt - pure inductor	mutual inducn two long solen expression	induced emf by changing area	Induced emf by changing area	4.5	losses in a transformer
5	56	Pile of plates	Brewster law	Brewster law	Nicol prism	Brewster law	5.3 similar / 5.45	5.7	Brewster's law state explain	5.3 (or) 5.44	Brewster's law state explain	pile of plates	Nicolprism
6	57	H spectral series	X-rays 5 properties	Laue's experiment	6.5	6.8	Engy of elect in n th orbit	6.4	Bragg's law state & explain	5 character Cathode rays	orgin X-rays	properties of cathode ray	state & expla Bragg's law
7	58	Eineteins photo electric equation	Eineteins photo electric equation	5 uses of photo electric cell	Def. work fun. + laws photo ele. emission	5 uses of photoelectric cell	Wave mech concept of atom	5 applns - photo electric cell	applications of photoelectric cell	Construction and work - phot emiss cell	state photo electric emission& laws	7.38 / 7.41	Einsteins photoerle. equation
7	59	Fitzgerald constraction	time dilation	De Broglie wavelength of matter	De Broglie wavelength of matter	E = mc ² realtion	7.9	Lorentz-Fitz Gerald contraction	Time dilation	7.8	De Broglie wavelength of matter	application of phtoto cell	7.2
8	60	8.10 / 8.7	8.53 / 8.59	8.57 / 8.9	cosmic ray showers	mass defect Problem New	latitude effect cosmic rays	8.5 / 8.53	8.55 / 8.9	Biolog Hazard of Radioact	8.2	latitude effect of cosmicray	8.55
9	61	Demorgan's theorem	bridge rectifier	Demorgan's theorem	voltage divider biasing	Def. α β and its relation	Transistor as a switch	Frequency curve single stage CE & discuss result	AND Gate ? Function using electric& diode circuit	Circuit dia. & pin configu. Of OP-AMP	half-wave rectifer	voltage divider bias	De-morgan's theorem
10	62	Advantage & disad vantag digital Commu	Avantage & disadvantage of Digital com.	space wave propagation	principle of radar & applications	fibre optical comun & advantages	AM radio transmitter.	optical fibre & advantage	Avantage & disadvantage of Digital com.	FM transmitter and its working	FM - super heterdyne	merits & demerits digit comun	FM Transmitter block digram + Explain

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1	51	electric lines of force - properties	Capacitance of parallel plate	torque experienced by electric dipole	electric lines of force - properties	1.59 / 1.10	electric lines of force - properties	Energy stored P. plate capac	electric lines of force - properties	torque experienced by electric dipole	electric lines of force - properties	Capacitance of parallel plate cap. with dielectric slab	1.16
2	52	wheatstones bridge	2.10 / 2.30	potentiometer E1 / E2	Daniel cell	det.- internal resis of a cell - voltmeter	potentiometer E1 / E2	2.1	Resis Vs temp express & graph	some Appln. Super Conductors	det.- internal resis of a cell - voltmeter	det.- internal resis of a cell - voltmeter	Faraday's II law state & verify
2	53	2.33	Daniel cell	2.11 / 2.44	Faraday's II law state & verify	5 Appln. Super Conductors	2.33	potentiometer E1 / E2	2.9 / 2.44	Constr. & working of Leclanche cell	5 Appln. Super Conductors	2.8	Constr. & working of Leclanche cell
3	54	Galvanometer into an voltmeter	3.13	3.39	Characters Mag Lorentz Force	Galvan into an voltmeter	3.36	Galvan into an voltmeter	Galvan into an ammeter	3.17	3.13 / 3.35	3.16	Galvan into an ammeter
4	55	applications of Eddy current	losses in a transformer	losses in a transformer	losses in a transformer	E. M Indu Faraday's law - Lenz's Law	AC circuit having R only	mut ind 2 long solen expn	AC circuit with R only	induced emf by changing area	losses in a transformer	induced emf by changing area	energy associated with an inductor
5	56	5.7 / 5.47	Brewster's law state explain	Diff. Bet Interference & diffraction	5.42 / 5.4	Newton's ring radius of n-th ring	Nicol prism	Newton's ring radius of n-th ring	5.7	Brewster's law state explain	Brewster's law state explain	5.48 / 5.8	5.3
6	57	H spectral series	H spectral series	6.45	X-rays 5 properties	Origin of Chara X-ray Spectrum	Bragg's law state & explain	H spectral series	Origin of Chara X-ray Spectrum	Origin of Chara X-ray Spectrum	H spectral series	Bohr's postula. Radius of nth orbit	X-rays 5 properties
7	58	Einsteins photoerle. equation	Einsteins photoerle. equation	De Broglie wavelength of matter	Def. Phot Elec Eff & Laws Phot ele effect	De Broglie wavelength of matter	Laws of photo ele. emission	applns of photoelectric cell	7.2	7.5	De Broglie wavelength of matter	Lorentz-Fitz Gerald contraction	Photo cell & explain its working
7	59	Lorentz-Fitz Gerald contraction	De Broglie wavelength of matter	Lorentz-Fitz Gerald contraction	7.42	7.9	Lorentz-Fitz Gerald contraction	7.9 / 7.38	De Broglie wavelength of matter	Einsteins photoerle. equation	7.2	5 applns of photoelectric cell	time dilation with an example
8	60	8.54	binding energy curve	properties of alpha ray	Law of Radiact disintegn	8.55	8.10 / 8.51	8.53	cosmic ray showers	8.6 / 8.49	8.5	5 properties of neutrons	8.7 / 8.56
9	61	Demorgan's theorem	9.2	De-morgan's theorem	Multi meter as Ohm meter Explain	half-wave rectifer	De-morgan's theorem	half-wave rectifer	Op-amp summing ampli	Zener diode as voltage regulator	half-wave rectifer	State & prove De-morgan's theorem	half-wave rectifer
10	62	RADAR & Application.	FM Transm block digram + Explain	AM radio transmitter.	10.1	FM transm and its working	fibre optical commn & advan	RADAR & Application.	Avan & disadvan of Digital com.	FM Transm block digram + Explain	RADAR & Principle Application.	Satelite commun. Merits	Satelite commun. Merits & demerits

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PART - IV

Ln	Q.No	Mar-06	Jun-06	Oct-06	Mar-07	Jun-07	Oct-07	Mar-08	Jun-08	Oct-08	Mar-09	Jun-09	Oct-09
1	63	Electric dipole - axial line electric field	Electric dipole - axial line electric field	Electric dipole -potential special cases	Electric dipole-equatorial line - electric field	capacitors - in series and parallel	capacitors - in series and parallel	Electric dipole -potential special cases	electric dipole ? electric potential due to an electric dipole	Van de Graff generator	Electric dipole - axial line electric field	Electric dipole - equatorial line electric field	Van- de- Graff
3	64	infinitely long current conductor -B	infinitely long current conductor -B	Amp circuital law, mag indu due to solenoid	cyclotron	Joules's law-calorimeter expt	Mag. Indun. along the axis of a circular coil carrying current	Mag. Indun. along the axis of a circular coil carrying current	Tangent Galvanometer	Mag. Indu - current carrying Infinite long st conductor	force on current carrying condu in magnet field	Ampere's circuital law + long solenoid	infinitely long current counductor - B
4	65	Transformer priciples - theory - efficiency-losses	RLC series circuit V, Z, ϕ - relation	ac.circuit having capacitors only	single phase ac generator	single phase ac generator	single phase ac generator	single phase a.c.generator - principle, constru., working	method of inducing e.m.f-changing orientation direction of mag. Field	ac.circuit having inductor only	eddy current + application + minimised	RLC	changing orientation of coil induced emf
5	66	Wave theory-total internal reflection	Wave theory-total internal reflection	Expression for band width in interference	Raman effect	Expression for bandwidth in interference	Raman scattering	Raman effect Explain spectrum with diagram	interference - trans parent film - condition - max & minimum	Hygen's principle Explain reflection based on wave front	expression for bandwidth of young's double slit	emission & absorption spectra	interfernece trnsparent film
6	67	Bohr's postulates + n-th orbit radius expression	He - Ne Laser	Ruby Laser	Bragg's Spec. meter + X-ray 5 properties	Bragg's law + Bragg's Spectrometer	Ruby Laser	radius of n-th orbit - Bohr's theory	Millikan's oil drop	Millikan's oil drop	Ruby laser	postulates of Bohr atom model + n radius	J.J. Thomson Sp. Charge of electron
8	68	nuclear rector uses + modera, control rods, neut. reflector	Bainbridge mass spectrometer	Bainbridge mass spectrometer	GM counter	Bandbridge mass spectrometer	G.M. counter	cosmic ray Explain - latitude & altitude effect	Bainbridge mass spectrometer	Radio active disint law Half life, λ -relation	Bainbridge	G.M. counter	relation $N = N_0 e^{-\lambda t}$ + half life
9	69	Rectification + bridge Rectifier	colpitt's oscillator	colpitt's oscillator	OP-AM P as summer amplifier	bridge rectifier	OP- AMP as difference amplifier	Colpitt's oscillator	circuit diagram working single stage CE amplifier	Working of CE transistor amplifier	what is feedback + negative feed back	colpitts oscillator	OP-amplifier inverting noninverting
10	70	monochrome TV Receiver	analysis of AM wave + frequency spectrum	analysis of AM wave + frequency spectrum	mono chrome TV receiver	Superhetrodyne AM receiver	RADAR	analysis of AM wave + frequency spectrum	monochrome TV transmitter	monochrome TV transmitter	analysis of amplitude modulation	vidicon cameratube	monochrome TV transmitter

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1	63	Electric dipole -potential special cases	Electric dipole - axial line electric field	Electric dipole - axial line electric field	Electric dipole - axial line electric field	Gauss Law E due to infinitely long straight wire	Electric dipole -potential special cases	Gauss Law E due to infinitely long straight wire	capacitors - in series and parallel	Van- de- Graff	Electric dipole -potential special cases	Gauss Law E due to infinitely long straight wire	Electric dipole - equatorial line electric field	
3	64	infinitely long current conductor -B	motion of the charged particle in magnetic field	cyclotron	Force bet current carrying parallel conductors	force on current carrying conductor in magnet field	cyclotron	Mag. Indun. along the axis of a circular coil carrying current	Joules's law-calorimeter expt	force on current carrying conductor in magnet field	motion of the charged particle in magnetic field	cyclotron	infinitely long current conductor - B	
4	65	method of inducing e.m.f. -changing orientation direction of mag. Field	method of inducing e.m.f. -changing orientation direction of mag. Field	single phase ac generator	single phase ac generator	single phase a.c.generator - principle, constru., working	method of inducing e.m.f. -changing orientation direction of mag. Field	Transformer principle - theory - efficiency	single phase ac generator	RLC	method of inducing e.m.f. -changing orientation direction of mag. Field	single phase ac generator	Transformer principle - theory -efficiency	
5	66	emission & absorption spectra	expression for bandwidth of young's double slit	expression for bandwidth of young's double slit	expression for bandwidth of young's double slit	Raman scattering energy level diagram	expression for bandwidth of young's double slit	emission & absorption spectra	emission & absorption spectra	emission & absorption spectra	Raman scattering energy level diagram	emission & absorption spectra	Wave theory- total internal reflection	
6	67	J.J. Thomson Sp. Charge of electron	J.J. Thomson Sp. Charge of electron	J.J. Thomson Sp. Charge of electron	He - Ne Laser	Ruby Laser Energy level diagram working	J.J. Thomson Sp. Charge of electron	radius of n orbit - Bohr's theory	J.J. Thomson Sp. Charge of electron	Ruby Laser Energy level diagram working	Ruby Laser Energy level diagram working	He - Ne Laser	J.J. Thomson Sp. Charge of electron	
8	68	cosmic ray Explain - latitude & altitude effect	Bainbridge mass spectrometer	Bainbridge mass spectrometer	G.M. counter	Bainbridge mass spectrometer	relation $N = N_0 e^{-\lambda t} + \text{half life}$	relation $N = N_0 e^{-\lambda t} + \text{half life}$	relation $N = N_0 e^{-\lambda t} + \text{half life}$	Bainbridge mass spectrometer	G.M. counter	cosmic ray Explain - latitude & altitude effect	Bainbridge mass spectrometer	
9	69	Rectification + bridge Rectifier	bridge rectifier	NPN CE transistor & output character	circuit diagram working single stage CE amplifier	Colpitt's oscillator	bridge rectifier	Colpitt's oscillator	bridge rectifier	Characteristics of transistor in CE mode	circuit diagram working single stage CE amplifier	what is feedback exp for negative feed back	OP-amp? exp. For inverting amp.	
10	70	mono chrome TV receiver	analysis of AM wave + frequency spectrum	analysis of AM wave + frequency spectrum	Super Hetro dyne Receiver Explain	mono chrome TV receiver	RADAR Block Diagram	Super Hetro dyne AM Receiver Explain	analysis of AM wave + frequency spectrum	RADAR Block Diagram	analysis of AM wave + frequency spectrum	mono chrome TV receiver	Super Hetro dyne AM Receiver Explain	

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