DEPARTMENT OF PHYSICS

LESSON PLAN

2018-2019

Week plan.

2018 - 2019.

Months	Topics Covered	Reference.
June/July 25.06.18 to 06.07.18 III Yr.	Positive Rays - properties - Thomson's parabola method Aston's and Dempsters mass Spectrograph - Critical potentials. (Ionisation and excitation potential) - V	Modern physics by Murugesan.
II M.Sc	Types of lattices - Miller indices - Simple crystal structure - crystal diffraction - Bragg's law - reciprocal lattice.	SSP by Illangovan.
July 06.07.18 to 13.07.18 III Yr	Experimental determination of critical potential - Frank & Hertz experiment. Davis and Goucher's experiment problems.	Modern physics by Murugesan.
II. M.Sc	Reciprocal lattice (SC, BCC, FCC) Laue - equation - structural factor - Atomic factor.	SSP by Illangovan.

16-07-18 to 20.07.18	Vector atom model - Sommerfield atom model.	Modern Physics.
III yr	Cohesive energy of Ionic crystals - Types of Bonding (Ionic - Covalent, Metallic bonding)	SSP by Illangovan
I SBE	Inertia - Velocity - acceleration - momentum - force - I law of motion II law of motion - III law of motion (steam boat). Circular motion - Centripetal force.	SBE Material.
23.07.18 to 27.07.18 III yr	Madulig constant - one dimentional motion (Mono atomic lattice). Diatomic lattice - Brillouin	SSP by Gupta Kumar Sharma.
II M.Sc	zone - Quantization of lattice Vibrations phonon momentum - In-elastic Scattering Vibration.	
I SBE	Aeroplane, Jetplane, steam boat - Relative Velocity. Helicopter - Satellite - Rocket	SBE material.

III M.Sc	Einstein's theory and Debye's theory of Specific heat capacity. Thermal Conductivity - Thermal expansion - umklapp process	SSP by Illangovan
30.07.18 to 04.08.18. August	I CA Examinations.	
06-08-18 to 10-08-18 III PG ISBE	Spatial Quantization - Electron spin - Various types of Quantum numbers. Free electron gas in three dimensions - Thermal Conductivity Wiedmann Franz Lorentz Relation Aeroplane - Rocket - Jet plane velocity -	SSP by Gupta Kumar Sharma by Subbiah
13-08-18 to 17-08-18 III Yr	Coupling schemes - L-S & J-J coupling - pauli's Exclusion principle - Electronic configuration and periodic classification of elements.	Modern physics by Murugesan

	Electronics heat capacity - Hall effect. Band theory of solids & Semi-conductors. Bloch theorem - Kronig Penny model. Motion of cyclist along the circular path. Centrifuge.	Solid State Physics by Gupta Kumar & Sharma.
	20-08-18 to 24-08-18	
III Yr II PG I SBE	Magnetic dipole moments of electron due to orbital and spin motion - Bohr magneton Intrinsic carrier concentration - Mobility - Impurity - Fermi surfaces and construction - Experimental methods in Fermi surface studies. Application of centripetal and centrifugal forces. Bending of inclined road Track.	Modern Physics by Murugesan SSP by Illangovan and Gupta Kumar & Sharma.
	27-08-18 to 01-09-18	
III Yr	Stern and Gerlach experiment - Spin orbit coupling.	Modern Physics by Murugesan.

II - PG	De Hass Van Alphon effect.	
	Superconductivity facts - occurrence - Effect of Magnetic fields - Meissner effect - Entropy and heat capacity - Energy gap..	SSP by Gupta Kumar Sharma.
I SBE	Thermonuclear energy - (Carbon Nitrogen & proton-proton) law of Conservation energy Nuclear fission & fusion process. Semi conductors	
	03-09-18 to 07-09-18	SSP by.
II PG	Type I & type II Super Conductors - thermodynamics of super Conducting transition London equation.	Gupta Kumar Sharma
II Yr	Revision	II - Yr
I SBE	Types of semi conductors - Forward and reverse biasing - photo electric effect - photoconductivity cell - solar cell.	
	10-09-18 to 14-09-18	
II PG	Coherence length - Theory Single particle tunneling Josephson tunneling -	SSP by Illangovan.

I SBE	LED - Seven segment display - current - (types) Voltage - ohms law's Sodium and Mercury Vapour lamp.	
	14-09-18 to 20-09-18	
II PG	DC and AC Josephson's effect - High temperature Superconductors - SQUIDS Emergency lamp - Construction and working.	Solid state physics by Illangovan.
	25-09-18 to 01-10-18	
	CA Examinations.	
	03-10-18 to 06-10-18	
III -Yr	Spectroscopy - Double beam Spectrophotometer - Block diagram - Raman effect Rayleigh's scattering.	Murugesan
I SBE	House wiring - Switches Lamp - holders and its types - ceiling roses - Main types of Switch - ICDP, ICTP.	study Materials.

II PG	Elementary ideas of dia, para & Ferromagnetism - Quantum theory of para & ferro magnetism. Rare earth ion - Quenching of orbital angular momentum.	Solid state physics by Illangovan
II PG	8-10-18 to 17-10-18 Curie Point, exchange integral - Heisenberg's interpretation of weiss field - Ferromagnetism domains - Magnons - Thermal excitation of Magnons. Theory for anti-ferromagnetism. Neel temperature.	Solid state physics by Illangovan & Gupta Kumar Sharma.
III Yrs	Quantum theory of Raman effect - Experimental determination of Raman effect - Stokes lines - Antistokes lines - unmodified wave length.	Modern physics by Murugesan.
I SBE.	Socket outlets - wire's cables - Types of wiring system - Tree & distribution system - How to supply electricity to the houses. fuse - Earthing.	Study Materials.

	22.10.18 to 26.10.18		
II M.Sc	Adiabatic demagnetisation. Electronic heat capacity.		
I SBE II yrs.	Revision. Spectral terms, notations. examples. Selection rules - Intensity - Interval rule.	Modern Physics by Murugesan.	
	SEMESTER EXAMINATION		

Year & Date	Topics Covered	Reference
	19-11-18 to 23-11-18	
III Yr	Inertial and non-Inertial frames - Galilean Transformation equation; Laws of motion - Aeroplane.	Modern physics by Murugesan.
I SBE	Michelson Morley experiment - Postulates of special theory of Relativity.	
	26-11-18 to 30-11-18	
III Yr	Lorentz Transformation equation Inverse Lorentz Transformation equation.	Modern Physics by Murugesan.
II PG	Point defects - Scottky and Frenkel defects - Number of defects as a Function of temperature.	Solid State Physics by Illangovan
I PG	Edge & screw dislocation (line defects), surface & Volume defects. Nucleation - Kinds of nucleation - Homogenous - Heterogenous Nucleation. Classical theory of Nucleation.	Crystal Growth by Sankaranarayan -an & Ramaswami

I S BE	Steam boat - Relative Velocity - Rocket - Soluble.	Study Materials.
	03.12.18 to 06.12.18	Dr. White. 4/12/18
III yr	Addition velocity, Length Contraction, Time dilation - Relativity of simultaneity. Variation of mass with Velocity.	Modern physics by Murugesan
II PG.	Spherical nucleus (Gibbs Thomson equation for vapour - modified form) for ferf. Thomson equation for solution.	Crystal growth by Sankaranara ai
II PG	Diffusion in metals - Diffusion and ionic conductivity in ionic crystals - (Dislocations Edge & screw dislocation) Burger vector, Burgers circuit.	Material science by Ragavan
I SBE	Aeroplane - Jet plane - Satellite - Rocket	

	03-01-19 to 08-01-19	
II PG	Polymers - Polymerization mechanisms - Polymer structures Types and its classification.	Materials and Engineering Rhagavan.
	Solution growth Technique	crystal growth by
I PG	Low temperature solution growth - Solution - Solubility and super solubility Expression of super saturation.	Dr. Santhana Ragavan.
	wave function - operators -	Quantum mechanics
III Yr	momentum, kinetic energy - potential energy - Total energy.	Kamal Sigh
	Hermition & properties	
	Energy - Thermo Nuclear	
I SBE	Energy - Nuclear fission and Nuclear fusion -	Study material
	Carbon - nitrogen cycle -	
	Proton - proton cycle.	
	21-01-09 to 01-02-19	
	Deformation of polymers -	Materials and
II PG	Behaviour of polymers - ceramics	Engineering
	ceramic phases - Structures on	Rhagavan
	the behaviour of Ceramic	
	phases.	
	Constant temperature bath and	crystal growth by
I PG	crystallizer - seed preparation	Dr Santhana ragavan.

	and mounting - Slow cooling and Solvent evaporation Techniques.	
II Yr	Postulates of Quantum mechanics - physical significance of wave function.	Quantum mechanics by Kamal Singh.
ISBE	photo electric effect - photo conductive cell - Solar cell - Semi conductors - conductors. Insulators - classifications. and its types.	
31.1.19		
	11.02.2019 to 15.02.2019	
IV PG	Gel growth Technique - principle types Structure of gel - Importance of gel. Experimental procedure - Single and double deffusion method. Advantages of gel methods.	Crystal growth by Sankara Narayanan & Ramasamy.
II PG	Composites - types - Applications.	Material science by Arumugam.
II Yr	Schrodinger time dependent and time independent wave equation. Eigen Value equation - postulates of Quantum mechanics.	
I SBE	Forward and Reverse biasing PN Junction diode - characteristic curve. LED - Applications. Current - Voltage (Types)	

	ohms law - Sodium Vapour lamp.	
I PG	Hall technique: Bridgmann technique - Basic process - Vertical Bridgman technique crystal pulling technique: Czochralski technique - Experimental arrangement. 18.02.2019 to 22.02.2019	crystal Growth by Sankara Narayanan and Ramaswami
II PG	Laser physics - Introduction Interaction with of radiation with matter. Spontaneous and Stimulated emission.	Engineering physics by P. Mani.
III Yr	Expectation values - for observables - Ehrenfest's theorem Mercury and Emergency lamp	Quantum mechanics by Sathya prakash
I SBE	02.03.19 to 09.03.19 - CA exam	
II PG 11.03.19 to 16.03.19	Conditions for oscillations to occur - frequency of oscillation of the system - Einstein Co-efficient - 3 level laser.	Engineering physics by P. Mani.
I PG	Powder & single crystal XRD - Difference - FT IR FT-Raman - UV absorption (emission, Transmission).	

III Yr I SBE.	Spherical harmonics. Rigid rotator - moment of inertia - Reduced mass. wave equation of rigid rotator and its energy levels. House wiring - switches - lamps. (types)	Quantum mechanics by Sathyaprakash.
I PG 25.03.19 to 02.04.19. III Yr I SBE.	Scanning Electron microscope - with EDAS Spectral analysis. Separation of variables - solution for azimuthal polar wave. wires, cables, ceiling roses, Types of wiring system - Tree & distribution. How to supply electricity to the houses.	Materials characterization Quantum mechanics by Sathyaprakash
	SEMESTER EXAMINATION 6/5/19 Signature of principal.	

CLASS	PORTION COVERED	REFERENC
	19-6-18 to 22-6-18	
B.Sc III years Electricity & Magnetism	Introduction about Electricity and magnetism and Electric field induction & magnetic field induction	E & M b Murugesan and D.C. Tayal
B.Sc II years Mathematical & Classical Mechanics	Introduction to the Classical mechanics & Mechanics of a particle.	C.M by Goldstein & Gupta kumar Sharma
	25-6-18 to 29-6-18	
B.Sc. III years Electricity & Magnetism	capacitance - Definition - principle - Energy of a charged capacitor - Loss of energy on sharing of charge.	E & M Murugesan
B.Sc II years M.P & C.M	Mechanics of a system of particle - conservation of linear momentum - conservation of angular momentum	C.M by J.C. Upadhyaya
I years Allied physics	Introduction	properties of Matter by Murugesan
	2-7-18 to 6-7-18	
B.Sc III years Electricity & Magnetism	Forces of attraction b/w the Plates of a charged capacitor - Electrometers - Kelvin attracted dise electrometer.	E & M Murugesan

CLASS	PORTION COVERED	REFERENCE
	2-7-18 to 6-7-18	
B.Sc III Years E & M	Force of attraction b/w the plates of a charged capacitor - Thermoelectricity - Seebeck effect.	E & M Jaudgu Murugesan & T.C. Dayal
B.Sc II years M.P & C.M	Conservation of Energy and conservation Theorem - constraints - Kinetic energy and potential energy	C & M by Upadhyaya
I year Allied physics	Young's modulus - Rigidity modulus - Bulk modulus - Hooke's law - poisson's ration - Bending of Beam	properties of matter by Murugesan
	9-7-18 to 13-7-18	
B.Sc III Year E & M	Expression for peltier & Thomson co-efficient - Thermo-Electric diagram and its uses, Maxwells Thermodynamics of thermocouple. potentiometer - principle.	E & M Murugesan
B.Sc II year M.P & C.M	Holonomic and non - Holonomic Constraints - Degrees of freedom - Generalized	C & M by Upadhaya

CLASS	PORTION COVERED	REFERENCE
	coordinates - principle of virtual work - D'Alembert's principle.	
I year Allied physics	Expression by Internal Bending moment - Cantilever Depression at the loaded end of a cantilever.	Properties of matter by Murugesan.
	16-7-18 to 21-7-18	
B.Sc III year E&M	Electrometers - Theory of quadrant electrometer - measurement of potential difference and dielectric constant.	E & M Murugesan
B.Sc II year M.P&CM	Lagrange's equation from D'Alembert's principle - Lagrange's equation for system containing dissipative forces.	CM by Upadhaya
I year Allied physics	Experiment to determine Young modulus by non - uniform bending using pin and microscope - I form girders - Torsional couple.	properties of matter by Murugesan

CLASS	PORTION COVERED	REFERENCE
B.Sc III year E&M.	Heterostatic use and Idiostatic use. Measurement of Ionisation current	E&M by Murugesan.
B.Sc II year M.P&CM	Application of Lagrange's equation - Simple pendulum - Central force - Equation of motion and first integrals.	CM by Upadhaya
I year Allied physics.	potential energy stored in a twisted wire - Expression for couple per unit twist - Torsional pendulum - determination of rigidity modulus by Torsional oscillation (without masses) and by Static torsion method.	Properties of matter by murugesan.

30/7/18

30-7-18 to 3-8-18

CA Examination

CLASS	PORTION COVERED	REFERENCE
	6-8-18 to 10-8-18	
B.Sc III Year E & M	Introduction to magnetism & magnetic properties of material	E & M by D C Tayal and Murugesan
B.Sc II Year M.P & CM	Beta function – lagrange's equation application At wood's machine – compound pendulum	classical mechanics by J C Upadhaya
I year Allied physics	Introduction to the concept of Heat	properties of matter
	13-8-18 to 17-8-18	
B.Sc III Year E & M	Magnetic Induction (B)- Magnetization (M) & magnetic property of the material obtained	E & M by Murugesan
B.Sc II Year M.P & CM	Beta function – Evaluation of Beta function – Gramma function – Evaluation of Gramma function	Mathematical physics by Sathya prakash
I year Allied physics	Specific heat of capacity – Definition – Heat – Determination of heat	Thermodynamics by Brijlal Subramanian

CLASS	PORTION COVERED	REFERENCE
	20-8-18 to 24-8-18	
B.Sc III Year E & M	Magnetic susceptibility - Magnetic permeability - Relation between B, H and M	E & M by Murugesan
B.Sc II year M.P & C.M	Symmetry property of beta function - Legendres differential equation.	M.P by Sathya prakash
Allied I Year	Determination of Specific heat capacity by method of mixtures - half time correction	Brijlal Subramanian - Thermodynamics
	27-8-18 to 1-9-18	
B.Sc III Year E & M	Properties of dia, para, ferro magnetic materials - Antiferro magnetic materials and ferrites	E & M by Murugesan
B.Sc II years M.P & C.M	Legendres function - Orthogonal property of Legendre polynomial	M.P by Sathya prakash

CLASS	PORTION COVERED	REFERENCE
I year Allied physics	Callendar and Barne's method - Newton's law of cooling - Determination of Specific heat of a liquid using Newton's law of cooling	Thermodynamics by Brijlal Subramaniam
B.Sc III Year E&M	3-9-18 to 7-9-18 Langevin's theory of → of diamagnetism & paramagnetism	E & M by Murugesan.
B.Sc II Year M.P&C.M	Generating fn of Legendre's polynomial - Recurrence formula I	M.P by Satya prakash.
B.Sc I Maths Allied physics	Joule Kelvin's effect - Temperature of inversion - Linde's process	Allied physics by Murugesan.
B Sc III Year ELM	10-9-18 to 14-9-18 Weiss theory of ferro magnetism - Hysteresis loss	E&M by Murugesan
B.Sc II Year M.P&C.M	Recurrence formula II & III, IV	M.P by Satya< prakash.
B.Sc I Maths Allied physics	Liquification of Helium - properties of Helium I & II. Lambda point	Allied physics by Murugesan

CLASS	PORTION COVERED	REFERENCE
	17.9.18 to 20.9.18.	
III B.Sc Phy E & M	Experiment to draw (M-H) curve (hysteresis - horizontal model). Importance of hysterisis curve	E & M by Murugesan.
B.Sc II year M.P & C.M	Recurrence V & VI. Other form of β. fn & Gamma fn. Relation blw β & Γ fn.	M.P by Satya prakash.
Allied physics	Super conductors - Meissner effect → applications - magnetic levitation	Allied physics by murugesan
	24.9.18	
III - B.Sc E&M	Revision	
II - B.Sc M.P	Revision	
	25-9-18 to 1-10-18	
	II CA Examination	
	K. Shiela 1/10/18	

CLASS	PORTION COVERED	REFERENCE
	3/10/18 to 6/10/18	
III B.Sc Phy E & M	Comparison of capacitances - Comparison of EMFs of Cells - Self Inductance.	E & M by Murugesan
II B.Sc phy M.P & C.M	Bessel functions : Recurrence formula I & II	M.P by Satya prakash
Allied physics	Introductions to optics - Definition of polarisation - Its theory	Allied physics by Murugesan.
	8/10/18 to 12/10/18	
III B.Sc phy E & M	Mutual Inductance - self Inductance of a long solenoid - mutual inductance of co-axial solenoids - Eddy current and its uses.	E & M by Murugesan
II B.Sc phy M.P & C.M	Recurrence formula III & IV, V & VI - phase - space - Hamiltonian function - Hamiltonian Equations.	M.P by Satyaprakash C.M by B.D Gupta & Satya prakash
Allied physics	Brewster's law - Double refraction - optical activity - Fn. of half shade - Definition of specific rotatory power.	Allied physics by Murugesan

CLASS	PORTION COVERED	REFERENCE
	15/10/18 to 17/10/18	
III B.Sc phy E & M	Revision	
II B.Sc phy M.P & C.M	Physical significance of Hamiltonian function - Application of Hamiltonian equations - simple pendulum - compound pendulum	C & M by BD Gupta Satya prakash
Allied physics	Determination of specific rotatory power of sugar solution by laurent half shade polarimeter. Use of polarised light. Determination of wavelength using transmission grating.	Allied physics by Murugesan
	22/10/18 to 26/10/18	
III B.Sc phy E & M	Revision	
II B.Sc phy M.P & C.M	Revision	
Allied physics	Revision	

V. Shiela
26/10/18

CLASS	PORTION COVERED	REFERENCE
	19/11/18 to 23/11/18	
III B.Sc phy Nuclear physics	Introduction to Nuclear physics & classification of Nuclei.	Nuclear physics by pandya & yadav
II B.Sc phy Optics	Introduction & Types of optics.	Optics by Murugesan & Brijilal Subramaniam
Allied physics	Transient current, Steady state current	E & M Murugesan
	26/11/18 to 30/11/18	
III B.Sc phy Nuclear physics	General properties of nuclei - Nuclear mass, mass defect, Nuclear density - Electric Quadrupole moment	Modern physics by Murugesan
II B.Sc phy Optics	Dispersion - Dispersion produced by thin film - angular dispersion - Dispersive power of a prism	Optics by Brijilal Subramaniam
Allied physics	Growth and decay of LR circuit and Growth and decay of RC circuit	E & M Murugesan

Dr. Thaile 14/12/18

CLASS	PORTION COVERED	REFERENCE
	3/12/18 to 6/12/18	
III B.Sc Phy Nuclear physics	Binding Energy, Packing factor, nuclear stability	Modern physics by Murugesan
II B.Sc Phy OPTICS	resolving power of a Prism - combination of prism to produce dispersion without deviation	Optics by Brijlal Subramanian
Allied physics	Measurement of high resistance by leakage method - magnetic Induction - magnetization	Electricity and Magnetism by Murugesan
	10/12/18 to 14/12/18	
III B.Sc phy Nuclear physics	Nuclear forces - meson theory of nuclear forces - liquid drop model - Semi empirical formula.	Modern physics by Murugesan.
II B.Sc phy OPTICS	Deviation without dispersion - Direct vision Spectroscope	Optics by Brijlal Subramaniyam
Allied physics	Relation blw B, H and M - magnetic susceptibility and Permeability	Electricity & Magnetism by Murugesan

CLASS	PORTION COVERED	REFERENCE
	18/12/18 to 21/12/18	
III B.Sc phy Nuclear physics	Shell model and its evidences - Collective model	Modern physics by Murugesan
II B.Sc phy OPTICS	Constant Deviation Spectroscope and determination of refractive index of a small angled prism	Optics by Brijlal Subramaniyam
Allied physics	Hysterisis loss- Importance of hysterisis loop, properties of dia, para, ferro magnetic material.	Electricity and magnetism by Murugesan
	3/1/19 to 8/1/19	
III B.Sc physics	Revision	
II B.Sc Physics	Revision	
Allied Physics	Revision	
	9/1/19 to 19/1/19	
	I CA Examination	

CLASS	PORTION COVERED	REFERENCE
	21/1/19 to 25/1/19	
III B.Sc Physics Nuclear physics	Introduction to nuclear fission and fusion. Discovery of nuclear fission	Nuclear physics by Gharshal & pandya Yadav
II B.Sc physics	Introduction to polarisation, plane polarised light & plane of polarisation	Optics by Kakani
Allied physics	Introduction to Electronics, PN Junction Diode, characteristics of PN Junction diode and forward and Reverse Bias.	Modern Physics by Murugesan
	28/1/19 to 1/2/19	
III B.Sc physics Nuclear physics	Nuclear fission reaction. calculation of Energy in amu. Energy released during fission. Bohr and Wheeler theory of nuclear fission and	Modern physics by Murugesan

	Chain reaction - Controlled chain reaction - atom bomb - nuclear reactor - power reactor - Breeder reactor	
II B.Sc Physics	polarisation by reflection, Brewster law. Double refraction - uniaxial crystal	Optics by Murugesan
Allied Physics V. Shiba 21/1/19	Zener diode as voltage regulator - rectifier - Full wave Bridge rectifier	Modern Physics by Murugesan
	4/2/19 to 8/2/19	
III BSc phy Nuclear physics	Nuclear fission reaction - Sources of stellar energy C N cycle, P-P cycle Thermonuclear reaction - hydrogen Bomb	Modern physics by Murugesan
II Bsc phy OPTICS	Huygen's explanation on double refraction with uniaxial crystal. Nicol prism as polariser & analyser	Optics & Spectroscopy by Brijlal Subramanian
Allied Physics	Zener diode, VI Characteristics of zener diode Filters - types of filters	Principle of Electronics by V. K. Mehta

CLASS	PORTION COVERED	REFERENCE
	11/2/19 to 15/2/19	
III B.Sc Physics Nuclear Physics	Elementary particles - Introduction - Baryons, hadrons - fundamental interaction - conservation law.	Modern Physics by R. Murugesan
II B.Sc Physics Modern optics	Quater wave plate and half wave plate - production of plane, circularly and elliptically polarised light and its detection with test analysis	Optics and Spectroscopy by Brijlal & Subramaniam
Allied Physics	capacitor filter - Choke input filter - capacitor input filter	Basic Electronics by V. K. Mehta
	18/2/19 to 22/2/19	
III BSc physics Nuclear physics	leptons, mesons, the quark and its model colour quarks.	Modern physics by Murugesan
II B.Sc Physics Optics.	Optical activity - Fresnel's explanation - Experimental verification. Specific rotatory power	Optics & Spectroscopy by Brijlala Subramanian

CLASS	PORTION COVERED	REFERENCE
Allied physics	opto electronic devices - photo diode - principle - characteristics - application of photo diode → Alarm circuit, counter	Basic Electronics by V.K. Mehta
	25/2/19 to 1/3/19	
III B.Sc physics Nuclear physics	Revision	
II B.Sc physics OPTICS	Determination of specific rotatory power by Laurent's half shade polarimeter - Kerr effect and faraday effect - LCDs.	Optics and Spectroscopy by Brijlal Subramaniam
Allied physics	LED - principle - Characteristic - Application - Seven Segement Display - power indicator - Solar cell - Construction and working	Basic Electronics by Brijlal Subramanian
	2/3/19 to 9/3/19	
	II CA EXAMINATION	

CLASS	PORTION COVERED	REFERENCE
	11/3/19 to 15/3/19	
III B.Sc Physics Nuclear Physics	Discovery of neutron - Detection and properties of neutron - Thermal neutron - induced radioactivity	Modern physics by Murugesan
II B.Sc Physics Optics	Diffraction - Fraunhofer Diffraction - Fraunhofer Diffraction at single slit and Double slit. Dispersive power of grating.	Optics & Spectroscopy by Brijilal Subramanian
Allied Physics	Crystal - Definition of unit cell - seven types of Crystal system - Definition of of Bravis lattice.	Engineering physics by Dr. P. Mani
	18/3/19 to 22/3/19	
	PRACTICAL EXAMINATION	
	25/3/19 to 29/3/19	
III B.Sc Physics Nuclear physics	Application of radio isotopes in medicine, agriculture, industry - carbon dating	Modern physics by Murugesan

CLASS	PORTION COVERED	REFERENCE
II B.Sc physics Optics	-plane transmission grating - Determination of wavelength - Absent Spectra - resolving power of grating - Difference blw grating and prism. Difference blw Fresnel and Fraunhofer.	Optics & Spectroscopy by Brijilal Subramanian
Allied Physics	Definition of Reciporcal lattice and its properties Derivation of Bragg's law. Laser - Application - principle - Types of laser - Nd YAG laser. Semiconductor laser (Homo & Hetero). 1/4/19 to 2/4/19	Engineering physics by Dr. P. Mani
III B.Sc Physics Nuclear Physics	Revision	
II B.Sc physics optics	Revision	
Allied physics	Revision	

A. Rajamallaya
6/5/19

CLASS	LESSONS COVERED	REFERENCE
II B.Sc Physics Mathematical physics and classical mechanics	19/06/18 - 22/06/18 Introduction to scalar and Vector quantities, Gradient of a scalar field and problems	Mathematicals physics by Sathya prakash
III B.Sc physics Basic electron-ics	Introduction to PN junction, diode and semiconductor	Principles of Electronics by V.K Mehta Rohit Mehta
I B.Sc Physics Mathematical methods & classical Mechanics	25/06/18 - 29/06/18 Line, surface and volume integrals	Mathematical physics by Satya Prakash
III. B.Sc Physics Basic Electronics	Rectifiers and Half wave rectifier	Principles of Electronics by V.K Mehta Rohit Mehta
SBE - I year Home Appliances	Introduction to home appliances	Self notes

CLASS	TOPICS COVERED	REFERENCE
	02/07/18 - 06/07/18	
II B.Sc Physics Mathematical methods & classical mechanics	Divergence of a vector function - problems, curl of a vector function and its physical significance - problems	Mathematical Physics by Satya Prakash
III B.Sc Physics Basic electronics	Full wave rectifier, advantages, disadvantages peak inverse	Principles of Electronics by V.K. Mehta Rohit Mehta
SIBE - II years Home Appliances	Basic concepts of current, voltage/ potential difference, Electrical measuring meters, Ammeter - Voltmeter - connection of ammeter and voltmeter in a circuit, multimeter, Ohm's law, conductors, insulators, uses of conductors & insulators	Self notes

CLASS	TOPICS COVERED	REFERENCE
	09/07/18 - 13/07/18	
II · B.Sc Physics Mathematical methods & classical mechanics	Vector identities and its proof. Gauss divergence theorem and its deduction	Mathematical physics by Satya Prakash
III B.Sc physics Basic electronics	Efficiency and ripple factor for half wave and full wave rectifier	principles of Electronics by V.K. Mehta Rohit Mehta
SBE - I years Home Appliances	Resistance, laws of resistance, Resistance in series and Resistance in parallel	Self notes
	16/07/18 - 20/07/18	
II - B.Sc Physics Mathematical methods & classical mechanics	Introduction to matrices, Eigen values, Eigen vectors and characteristic equation and problems	Mathematical physics by Sathya Prakash and B.D Gupta
III · B.Sc physics Basic electronics	Filter circuits. capacitor filter, π filter and choke input filter	Principles of Electronics by V.K. Mehta Rohit Mehta

CLASS	TOPICS COVERED	REFERENCE
SBE II years Home Appliances	colour coding for Resistors, capacitors, capacitance in series and capacitance in parallel	self notes
	23/07/18 - 27/07/18	
II - B.Sc physics Mathematical methods & classical mechanics	Cayley Hamilton theorem and problems. Diagonalization of matrices and problems	Mathematical Physics by Satya Prakash
III - B.Sc Physics Basic Electronics	Zener diode, Zener diode as voltage regulator, Voltage multiplier, voltage doubler, clipping and clamping circuits	Principles of Electronics by V.K. Mehta Rohit Mehta
SBE - II years Home Appliances	Inductors, Self Induction, Mutual Induction	Self notes
	30/07/18 - 04/08/18	
	I - CA Examination	

CLASS	TOPICS COVERED	REFERENCE
	06/08/18 - 10/08/18	
I - B.Sc Physics Mathematical methods & classical mechanics	Introduction to statistics, Measure of central tendency.	Mathematical physics by H.K. Dass
II B.Sc physics Basic electronics	Introduction to operational amplifier	Principles of electronics by V.K Mehta Rohit Mehta
SBE - II years Home Appliances	Effects of electric current	self notes
	13/08/18 - 17/08/18	
II - B.Sc Physics Mathematical Methods & classical Mechanics	Arithmetic mean & related problems, Median & related problems	Mathematical physics by H.K. Dass
III - B.Sc physics Basic Electronics	Differential amplifier, difference between ordinary and differential amplifies	Principles of electronics by V.K Mehta Rohit Mehta
SBE - II years Home	Precautions to be taken	self notes

CLASS	TOPICS COVERED	REFERENCE
	20/08/18 - 24/08/18	
II. B.Sc physics Mathematical methods & classical mechanics	Related problems, measure of dispersion, Range and Quartile deviation	Mathematical physics by H. K. Dass
III. B.Sc physics Basic Electronics	Basic circuit of differential amplifier	Principles of Electronics by Vak Mehta Rohit Mehta
SBE-II years Home appliances	causes of fire on electrical appliances, precautions and remedial measures	self notes
	27/08/18 - 01/09/18	
II. B.Sc physics Mathematical methods & classical mechanics	Mean deviation & related problems, standard deviation & related problems	Mathematical physics by H. K. Dass
III. B.Sc physics Basic electronics	Operation of differential amplifier, common-mode and differential-mode signals, double-ended input operation of DA	Principles of Electronics by Vak. Mehta Rohit Mehta

CLASS	TOPICS COVERED	REFERENCE
SBE - II years Home Appliances	Light effect, Electric bulb and its working, Flourescent tube & its working	Self notes
	03/09/18 - 07/09/18	
II - B Sc physics Mathematical methods & classical mechanics	standard deviation problems	Mathematical Physics by H.K. Dass
III B Sc physics Basic electronics	Voltage gain of Differential amplifier	Principles of Electronics by V.K Mehta Rohit Mehta
SBE - II years Home appliances	Grouping of lamp, lamp connected in series, lamp connected in parallel	Self notes
	10/09/18 - 14/09/18	
II B.Sc physics Mathematical methods & classical Mechanics	Introduction to skewness, Measure of skewness, Karl pearsons co-efficient of skewness	Mathematical physics by H.K. Dass

CLASS	TOPICS COVERED	REFERENCE
III. B.Sc physics Basic Electronics	common mode Rejection Radio with its practical illustration. Op-amp as Inverting & Non-Inverting amplifier	Principles of Electronics V.K. Mehta Rohit Mehta
SBE - II years Home Appliances	Iron BOX - construction & working, Immersion heater, Electric stove, Domestic Refrigerator	self notes
II - B.Sc Physics Mathematical Methods & classical Mechanics	17/09/18 - 20/09/18 Bowley's co-efficient of skewness & related problems	Mathematical methods by H.K. Dass
III - B.Sc physics Basic Electronics	Op-amp as Summing Amplifier - Averaging & Substractor, Op-amp as Integrator and differentiator, Introduction to Multivibration, working of Astable, Monostable & bistable multivibrator	Principles of Electronics V.K. Mehta Rohit Mehta
SBE - II years Home Appliances	working of Air conditioning system & Washing Machine	self notes

CLASS	TOPICS COVERED	REFERENCE
	25/09/18 - 01/10/18	
	II - CA EXAMINATION	
	03/10/18 - 06/10/18	
II B.Sc Physics Mathematical methods & classical Mechanics	Application of vector to hydro dynamics, Equation of continuity.	Mathematical methods by Satya Prakash
III - B.Sc Physics Basic Electronics	II CA Paper distribution	—
SBE - II years Home Appliances	Magnetic effect, electromagneti. Electric bell	self notes
	08/10/18 - 12/10/18	
II - B.Sc Physics Mathematical methods & classical Mechanics	Application of vectors to heat flow in solids, Electromagnetic field, gravitation - Gravitation field potential & intensity	Mathematical methods by Satya Prakash

CLASS	TOPICS COVERED	REFERENCE
III B.Sc PHYSICS Basic electronics	Introduction to transistor, faithful amplification, transistor biasing Emitter follower	Principles of Electronics, V.K. Mehta Rohit Mehta
SBE - II years Home Appliances	Electric motor - Working of simple DC motor	Self notes
	15/10/18 - 17/10/18	
III - B.Sc Physics Basic electronics	Multistage amplifiers, Role of capacitor, RC coupled amplifier, frequency response, advantage disadvantage, Power amplifiers	Principles of Electronics by V.K. Mehta Rohit Mehta
SBE - II years Home Appliances	Electromagnetic waves, Applications, working of microwave oven	Self notes
	22/10/18 - 26/10/18	
II - B.Sc Physics Mathematical methods & classical mechanics	Poissons Bracket and its properties, lagrangian and Hamiltonian of the charged Particle	Mathematical Physics by Satya Prakash

CLASS	TOPICS COVERED	REFERENCE
III B.Sc physics Basic electronics	Small signal and large signal amplifier, voltage amplifier & power amplifier, output of power amplifier, class A, class B, class C Power amplifier	Principles of Electronics by V.K Mehta Rohit Mehta
SBE - II years Home Appliance L. Shiela 26/10/18	working of Television	Self notes
	19/11/18 - 23/11/18	
II B.Sc physics Optics	Introduction to optics, Reflection, refraction and diffraction	Optics & Spectroscopy by K. Duraipandian
III B.Sc physics Microprocessor 8085	Introduction to microprocessor 8085. Bus system.	Fundamentals of Microprocessor by Vijendran
SBE - II years Home Appliances	Introduction to Home appliances and basic concepts	Self notes

Class	TOPICS COVERED	
	26/11/18 - 30/11/19	
II. B.Sc physics Optics	Lens system, convex lens, concave lens, centre of curvature, principal axis, Optical centres, aperature, first principal focus, second principal focus of concave & convex lens.	Optics & Spectra R. Murug
III. B.Sc Physics Microprocessor 8085	Decimal, Hex and Binary codes, ~~orga~~ Organisation of Buses.	Fundam of Micro 8085 Vijayan
SBE - II years Home Appliances	Basic concepts - Atom, electric current, Voltage (or) potential difference, Electrical Measuring devices - Ammeter, Voltmeter and multimeter Dr. Bhuvaneshwari 4/12/18	Self notes
	03/12/18 to 06/12/18	
II. B.Sc Physics Optics	thick lens, formula, power of a thick lens, defects in lenses, various defects and its minimizing methods	Optics & Spectros R. Murugu

CLASS	TOPICS COVERED	REFERENCE
III B.Sc Physics Microprocessor 8085	classification of instruction set. Data transfer instruction set-I, Arithmetic instruction	Fundamentals of microprocessor by Vijendran
SBE II years Home Appliances	Ohms law, magic triangle, experiment to verify Ohm's law, conductors and its uses, Insulators and its uses.	Self notes
I. B.Sc physics Optics	10/12/18 to 14/12/18 Spherical aberration, methods of minimizing spherical aberration, contact method and out of contact method.	Optics & Spectroscopy by R. Murugesan
III B.S.C Phys Microprocessor 8085	Logic instructions and special instructions	Fundamentals of microprocessor by Vijendran
Home Appliances	Resistance, Law of resistance, Resistance connected in series and parallel	Self notes

CLASS	TOPICS COVERED 17/12/18 - 21/12/18	REFERE
II B.Sc Physics Optics	Chromatic aberration in lenses - condition for achromatism of two thin lenses in contact and out of contact - Eyepiece, Ramsden's and Huygen's eyepiece	Optics & Spectros V. Nurug
III B.Sc Physics Microprocessor 8085	Data transfer instruction - II Branch instruction	Microproc 8085 by Vijendran
SBE - II years Home Appliances	Capacitors, capacitors connected in series and parallel. Inductors, self induction and mutual induction	Self note

CLASS	TOPICS COVERED	REFERENCE
	29/12/18 - 02/01/19 christmas holidays	
II B.Sc Physics Optics	03/01/19 - 08/01/19 comparison of Huygen's eyepiece and Ramsden's eyepiece	Optics & Spectroscopy by R. Murugesan
III - B.Sc physics Microprocessor 8085	Call & Return instruction I/O & machine controlled instruction, Addressing Modes of 8085	Microprocessor 8085 by Vijendran
SBE - II years Home Appliances	Effects of currents, Light, Heat, physical, chemical, X-rays effects	Self notes
	09/01/19 - 19/01/19 I - CA Examination	
II - B.Sc Physics Optics	21/01/19 - 25/01/19 Introduction to Interference, condition for interference, theory of Interference	Optics & Spectroscopy by R. Murugesan

CLASS	TOPICS COVERED	REFERE
III B.Sc Physics	paper distribution	
SBE - II year Home Appliances	precautions to be observed while handling electrical equipments & tools. causes of fire & Remedial measures, Light effect, construction and working of Electric bulb and fluorescent light, Grouping of lamps in series and parallel	Self note
II B.Sc physics Optics	28/01/19 – 01/02/19 theory of interference for reflected system, wedge shaped film. Determination of thickness of the wire by Air wedge experiment. Determination of refractive index of the liquid by Newton's rings experiment	Optics & Spectroscopy R. Murugesan
III. B.Sc physics Microprocessor.	Stack and Stack related instruction. Introduction to Interrupts. INTR & INTA.	Microprocessor 8085 by Vijendran
SBE - II years Home Appliances	working of Iron box, Immersion heater, Electric stove & Refrigerator	Self notes Dr. Thilak 31/1/19

CLASS	TOPICS COVERED	REFERENCE
	04/02/19 - 08/02/19	
II - B.Sc Physics Optics	Michelson's Interferometer, types of fringes and uses	Optics & Spectroscopy by K. Murugesan
III B.Sc physics Microprocessor	Generation of RST codes, RST 7.5, RST 6.5, RST 5.5, Trap, INTR, Triggering levels and Interrupt priority	Microprocessor 8085 by Vijendran
SBE - II years Home Appliances	Air conditioning system and washing machine	Self notes
	11/02/19 - 15/02/19	
II - B.Sc physics Optics	Jamin's interferometer Rayleigh's Refractometer	Optics & Spectroscopy by K. Murugesan
III - B.Sc Physics Microprocessor	Interrupt Acknowledgement timing diagram, addition and subtraction program	Microprocessor 8085 by Vijendran
SBE - II years Home Appliances	Magnetic effect of electric current, electro-magnets working of door bell and DC motor	Self notes

CLASS	TOPICS COVERED	REFERENCE
	18/02/19 - 22/02/19	
II. B.Sc Physics Optics	Fabry perot Interferometer visibility, sharpness	Optics & Spectroscopy by K. Murugesan
III. B.Sc Physics Microprocessor 8085	Multiplication, division, Ascending & descending order programs	Microprocessor 8085 by Vijendran
SBE - II year Home Appliances	Revision for II - CA	Self notes
	25/02/19 - 01/03/19	
II. B.Sc Physics Optics	Hologram - construction - reconstruction.	Optics & Spectroscopy by K. Murugesan
III. B.Sc Physics Microprocessor 8085	Programmable Peripheral Interface 8255, Pin out configuration, working.	Microprocessor 8085 by Vijendran
SBE - II - years Home Appliances	Revision for II - CA	-
	02/03/19 - 09/03/19	
	II - CA Examination	

CLASS	TOPICS COVERED	REFERENCE
II B.Sc physics Optics	11/03/19 - 15/03/19 Diffraction - fresnel diffraction, Fresnel ideas of wave front	Optics & Spectroscopy by K. Nurugesan
III B.Sc physics Microprocessor 8085	paper distribution - CA II	-
SBE - II year Home Appliances	5-mark component presentation by students	-
II B.Sc physics Optics	18/03/19 - college day 19/03/19 - 22/03/19 Fresnel's explanation of rectilinear propogation of light diffraction at a circular aperture and Straight edge	Optics & Spectroscopy by K. Nurugesan
III B.Sc physics Microprocessor 8085	Interfacing, Demultiplexing address & data lines. 8KX8 EPROM interface with 8085 using NAND & decoder	Microprocessor 8085 by Vijendran
SBE - II year Home appliances	5-mark component presentation by students	-

CLASS	TOPICS COVERED	REFERENCE
	25/03/19 - 29/03/19	
I B.Sc Physics	Zone plate, comparison of zone plate with convex lens. fabry perot interferometer - Resolving power	Optics and Spectroscopy by Dr. Murugesan
II B.Sc physics	4KX8 EPROM interface with 8085 using NAND & decoder 2KX8 RAM interface using decoder	Microprocessor 8085 by Vijendran
SBE - II years	Principle and working of Electric fan, Microwave oven, Safety measures, advantages and disadvantages	Self notes
	01/04/19 - 02/04/19	
II B.Sc physics and III B.Sc Physics	Revision	— " —

Dr. Rajendran L.
6/04/19

CLASS	PORTION COVERED 25-6-18 to 29-6-18	REFERENCE
B.Sc I Year Properties of Matter	Introduction, Basic ideas of elastic module	Murugasen
B.Sc III Year Skill based elective	Introduction, Newton's law of motion, and application - conservative forces	C. L. ARORA
III - Year [Non-Major] Fundamentals of Physics	Introduction - Position - Displacement - velocity - acceleration.	Modern Physics Murugesan.

CLASS	PORTION COVERED 2.07.2018 to 6-07-2018	REFERENCE
I - B.Sc Properties of Matter	Workdone in twisting a wire and streatching a wire, static torsion	Murugasen
III - B.Sc Physis for Competative Exams [SBEJ	Coloumb's law, Gauss law, potential differ-ence, dipole moment	C.L. ARORA
Fundament-al of physis	Newton's law, work, speed, motion, centripetal and centrifugal forces and its applications	Modern Physis by Murugasen

CLASS	PORTION COVERED 9-01-2018 to 13-01-2018	REFERENCE
I. B.Sc Properties of Matter	Determination of rigidity Modulus and moment of inertia of Torsion pendulum	R. Murugesan
III - B.Sc Physics for Competative exams. [SBE]	Newton's law of motion. and applications of conservative forces.	C.L. Arora.
NME Fundamentals of Physics.	Heat, Measurement of heat, evaporation, fusion, specific heat,	Brijlal and Subramanyam

CLASS	PORTION COVERED 16-07-18 to 20-07-18	REFERENCE
I B.Sc Properties of Matter.	Torsion pendulum for with and without mass. - Test.	R. Murugesan
III - B.Sc Physics for competative exams. (SBE)	Centripetal forces Centrifugal forces - Kepler's law - Conservative forces.	C.L. Arora
Fundamentals of Physics	Transmission of heat conduction, convention and radiation.	Brijlal and Subramanian.

CLASS	PORTION COVERED 23-07-18 to 27-07-18	REFERENCE
I B.Sc Properties of Matter.	Searle's Method by η, n, and σ determination of moment of inertia	Murugasen
III - B.Sc Physics for Competative exams (SBE)	Escape velocity - artificial satellite application of Newton's third law of motion	C. L. Arora
Fundamentals of Physics (NME)	Refrigerator and working principal Super conductor and its application	Brijlal and Subramanian

CLASS	PORTION COVERED	REFERENCE
	30-07-2018 to 3-08-2018	
I B.Sc, III B.Sc NME	I CA examinations	Dr. Shaila 30/7/18
	6-08-2018 to 10-08-2018	
I B.Sc Properties of Matter	Introduction to Surface tension - Expression for Spherical bubble - Excess of pressure - problems.	R. Murugesh
III B.Sc Competative exams for physics.	Waves, - Simple harmonic motion - damped and undamped oscillation.	K. C. Jain and C-L. Arora

CLASS	PORTION COVERED	REFERENCE
	13-08-2018 to 17-08-2018	
Ist B. Sc Properties of Matter.	Problem, Relation between curvature, pressure, and surface tension.	R. Murugasen
IIIrd B.Sc Competative exams for physics.	Doppler effect, Beats, resonance, Lissagies figure.	K. C. Jain C. L. Arora.
NME fundamentals of physics	Sound, properties of sound, Ultrasonics, types of waves.	optics by Murugasen. R

CLASS	PORTION COVERED	REFERENCE
	20-08-18 to 24-08-18.	
I^st B.Sc Physics	Excess of pressure in inside a liquid drop and bubble. and its cases.	R. Murugesha
III^rd B.Sc Physics SBE	Refraction at a spherical surface - in rares to denser medium and denser to rarer medium Power of a lens. reflection of a lens.	C.L. Arora.
Fundamental of Physics NME	Sound waves and its properties and applications of ultra waves, Ultrasonics - principle, properties - medical applications of ultrasonics.	Murugasen.

CLASS	PORTION COVERED	REFERENCE
	27-08-18 to 1-09-2018	
I st B.Sc Physics	Excess of pressure inside a curved liquid surface. synclastic and anticlastic surface.. Jaeger's method	R. Murugesan
III rd B.Sc Physics SBE	Interference - path difference - phase difference Constructive and distructive interference	C. L. Arora
Fundamentals of Physics	clinical applications of different types of scans [obsetetrics, early pregnancy, kidney, and liver].	Acoustics by Murugesan. R.

CLASS	PORTION COVERED	REFERENCE
	3-09-18 to 7-09-18	
I^st B.Sc Physics	Viscosity - Introduction Poiseuille's formula for liquid - Modification of Poiseuille's formula. - Mayer's formula	R. Murugesan by
III^rd B.Sc Physics [SBE]	Newton's rings, calculation of radius of curvature - Air wedge - calculation of bandwidth - Frenel and Fraunhber diffration - double reflection.	C.L. Arora
[NME] Fundamentals of Physics	Acoustics of building - Reverberation - Acoustic aspects of hall and auditorium	Modern Phy. by Optics by Murugasen.

CLASS	PORTION COVERED	REFERENCE
	10-09-18 to 14-09-18	
I^st B.Sc Physics	Oswald's visometer, Stoke's formula - determination of Co-efficient of viscosity.	R. Murugasen
III^rd B.Sc SBE.	X-ray spectrum - compton Effect - Photo electric effect - wavelength determination of deBroglie method - group velocity	C.L. Arora D.L. Arora
NME: fundamentals of Physics	Atom - Nucleus - mass number - chain reaction - Uncontrolled chain reaction - atom bomb. Nuclear fission.	Modern Physics by Murugesen. R

CLASS	PORTION COVERED	REFERENCE
	17-09-18 to 20-09-18 and 21-09-18	
I st B.Sc Physics	Osmosis - Experimental determination - Berker Hartly method - Osmosis Pressure in Boiling point, Vapour pressure, and freezing point.	Properties of Matter by R. Murugesen
III rd B.Sc SBE	Nuclear Physics: radioactive time, half period - Binding energy - Q - value. Nuclear fusion and fission.	C. L. Arora and D. L. Arora
III rd year NME	Nuclear fusion - Hydrogen Bomb - Nuclear reactor - X-rays production and properties and applications.	Modern Ph by Murugasen. R

Dr. Shiba
11/10/18

CLASS	PORTION COVERED 3-10-18 to 6-10-18.	REFERENCE
I^st B.Sc Physics.	Introduction to ultrasonics. and Priciples and production of ultrasonics.	Properties of Matter by Murugasen
III^rd B.Sc S.B.E	Electronics, - Semi-conductors - Rectifiers - diode - Transistors amplifiers.	C.L. Arora & D.L. Arora
III^rd Year NME.	Astronomy - Gravitation law of Newton's - Kepler's law - Satellite motion.	C.L. Arora by concepts of Physics.

CLASS	PORTION COVERED	REFERENCE
	08-10-18 to 12-10-18	
I^st B.Sc Physics.	Applications of ultrasonic waves. introduction - Welding.	Acoustics by Murugesan.
III^rd B.Sc Physics [SBE]	Amplifier - Oscillators - α & β feedback amplifiers.	C.L. Arora & D.L. Arora
III^rd year [NME]	Satellite Motion - Weightlessness in a satellite.	"Arora" by Concepts of Physics.
	15-10-18 to 17-10-18.	
I^st B.Sc Physics.	Applications of ultrasonics - Cleaning. holography. NDT.	'Acoustics' by Murugesan. R
III^rd B.Sc Physics [SBE]	Gates - OR, AND, NAND, NOR gates.	C.L. Arora & D.L. Arora.

CLASS	PORTION COVERED	REFERENCE
III rd year NME	Heliocentric & geocentric theory.	"Arora". by Concepts of Physics.
	22-10-18 to 26-10-18	
I st B.Sc Physics.	clinical applications of ultrasonics - Types of scans.	Acoustics by Murugasen.R
III rd B.Sc Physics [SBE]	Basic gates - Revision. General physics formula	C.L. Arora & D.L. Arora
III rd year NME	Formation of Starts, planets, comets, asteriods - Revision. Dr. Thula 26/10/18	Modern Physics by Murugasen.R

CLASS	PORTION COVERED	REFERENCE
I^st B.Sc PHYSICS	19-11-2018 to 23-11-2018 THERMAL PHYSICS Introduction to conduction Radiation and convection- Coefficient of thermal conductivity.	Brijlal & Subramani
III^rd B.Sc PHYSICS	QUANTUM MECHANICS. Introduction- de Broglie wavelength- wave velocity- group velocity- phase velocity- Relation Between phase & group.	Murugasen & Aruldas.
NME	FUNDAMENTAL OF PHYSICS Introduction to physics - Position- displacement - velocity- speed - acceleration.	Murugasen

CLASS	PORTION COVERED	REFERENCE
	26-11-18 to 30-11-18	
I^st B.Sc PHYSICS	THERMAL PHYSICS. Retilinear flow of heat - Forbe's method to find co-efficient of thermal conductivity. Thermal diffusivity.	Brijlal & Subramaniam
III^rd B.Sc PHYSICS	QUANTUM MECHANICS Ware packet - Davisson's Germer's Method - G.P. Thomson Method - Heisenberg's Uncertainty principle	Murugasen and Aruldas.
NME	FUNDAMENTALS OF PHYSIC Newton's law of motion - fundametal forces in nature - work, power.	Murugasen

4/12/18

CLASS	PORTION COVERED	REFERENCE
	3-12-18 to 7-12-18	
	Thermal Physics	
I st B. Sc PHYSICS	Lee's Disc - Relation between electric and thermal conductivity Wiedemann Franz law.	Briji lal & Subramaniy by Thermodynamic
	Quantum Mechanics	
III rd B. Sc Physics	Applications of Heisenberg's principle γ- ray microscope - Bohr - orbit radius..	G. Aruldas & Satya Prakash Quantum Mechan
NME	Fundamentals of Physics Centripetal & centri- -fugal forces and its applications - Heat - Measurement of heat - Conversion of heat -	Modern physics & Thermal physics by Murugesen. R

CLASS	PORTION COVERED	REFERENCE
	10-12-18 to 14-12-18	
I st B.Sc Physics	Thermal Physics. Radiation- Stefan's law Derivation of Newton's law of cooling from Stefan's law.	Briji Lals & Subramaniyam by Thermodynamics
III rd B.Sc Physics	Quantum Mechanics Heisenberg's illustration Single-slit experiment. & non-existence of electron in a nucleus.	S. Prakash by Quantum Mechanics.
NME	Fundamentals of Physics Specific heat capacity- Heat fusion - Laws of fusion - Application - Laws of boiling. application.	Thermal Physics by Murugasen. R

CLASS	PORTIONS COVERED	REFERENCE
	17-12-18 to 21-12-18	
	Thermal Physics	
I^st B.Sc Physics	Plank's Quantum Theory of radiation - Wien's displacement law - Ray-leighs law - Solar Spectrum and Temperature of Sun	R. Murugasen by Thermal physics
	Quantum Mechanics	
III^rd B.Sc Physics	Explanation of Bohr's radius - Minimum energy of Simple harmonic motion	S. Prakash by Quantum Mechanics
	Fundamentals of Physics	
NME	Transmission of heat - Conduction - convection - Radiation - Refridge-rator - Superconductor and its applications	R. Murugasen by Modern physics and Thermal Physics

22/12/18

CLASS	Portions Covered	Reference
	3-1-19 to 8-1-19.	
I st B.Sc Physics	Introduction to low temperature physics - Revision.	Thermal Physics Murugasen
III rd B.Sc physics	Revision - Introduction to applications of Schroedinger's Equation.	Quantum Mechanics S. Prakesh
NME	Revision, Test, - Introduction about Light & heat.	Modern Physics
	21-01-2019 to 25-01-2019	
I st B.Sc Physics	Thermal Physics Joule's - Kelvin effect - Introduction Inversion of temperature	Thermal Physics Briji Lal & Subramanijam

CLASS	Portions Covered	References
	3-1-19 to 8-1-19.	
I st B.Sc Physics	Introduction to low temperature physics - Revision.	Thermal Physics Murugasen
III rd B.Sc Physics	Revision - Introduction to applications of Schroedinger's Equation.	Quantum Mechanics S. Prakesh
NME	Revision, Test, - Introduction about Light & heat.	Modern Physics
	21-01-2019 to 25-01-2019	
I st B.Sc Physics	Thermal Physics Joule's - Kelvin effect - Introduction Inversion of temperature	Thermal Physics Briji Lal & Subramanyam

CLASS	Portions Covered	Reference.
	21-1-19 to 25-1-19.	
III rd B.Sc Physics	Quantum Mechanics One dimensional problems - Particle in a box - Free Particle.	Modern Physics by Murugasen.
	NME	
NME	Introduction about light - properties of light - Reverberation.	Optics by Murugasen.
	28-01-19 to 01-02-19	
I st B.Sc Physics.	Thermal Physics Joule & - Kelvin effect Liquefication of hydrogen - Experimental discription.	Brijilal & Subramaniya
	Quantum Mechanics	
III rd B.Sc physics	Eigen values - Eigen function, energy levels Significance of 1D problem	R. Murugasen

CLASS	Portions Covered	Reference.
	NME	
NME	Laser, properties - Conditions - characterics of Laser - Medical applications of Laser.	Modern Physics by Murugasen. R
	04 - 02 - 2019 to 08 - 02 - 2019	
I st B.Sc Physics	Helium - Liquefication of helium - I and II Some Special properties of Helium - II.	Thermal Physics by Briji law
III rd B.Sc Physics	Linear harmonic Oscillator - Simple harmonic motion - Bound state energy levels.	Quantum Mechanics by Sathya Prakash
NME	Modern physics - Atom - Nucleus - Reaction - Nuclear fission - Example & chain reaction.	Modern physics by Murugasen.

CLASS	PORTIONS COVERED 11-02-19 to 15-02-19	REFERENCE
I st B.Sc Physics	Lamda Point - Production of Low temperature - Adiabatic demagnetisation.	Thermal Physics.
III rd B.Sc Physics	Rectangular Potential Barrier - [Case - i & case ii] - Tunneling effect	Quantum Mechanics by Sathya Prakash
NME	Nuclear Reactor - Controable chain reaction - Nuclear fusion - Hydrogen bomb - Thermo nuclear Power reactor - applications.	Modern Physics by Murugasen

Class	Portions Covered 18-02-19 to 22-02-19	Reference
I^st B.Sc Physics	Low temperature Physics - Applications - Refrigeration - Refrigerator - principle. Working Construction.	Thermal Physics by Briji Law & Subramaniyam
III^rd B.Sc Physics	Revision - Rectangular Potential Barrier - Square well potential.	Quantum Mechanics by Sathya Prakash
NME	X-rays - principle - Production of X-rays - properties of X-rays.	Modern Physics by Murugasen

Class	Portions Covered 25-02-19 to 01-03-2019	Reference
I st B.Sc Physics	Low temperature Physics application - Air Condition Machines - principle - Working construction.	Thermal Physics by "Murugasen"
III rd B.Sc Physics	Square Well Potential for finite depth - Revision & test.	Quantum Mechanics by "Gupta & Kumar Sharma"
NME	Medical applications of X-rays - Revision & Class test	Modern Physics by "Murugasen"
	02-03-2019 to 09-03-2019 II CA Examinations	

CLASS	PORTIONS COVERED 11-03-2019 to 15-3-2019	REFERENCE
I^st B.Sc PHYSICS	Introduction - Statistical Mechanics - Quantum & Statistical Mechanics - Ensembles - Types - phase space	Thermal & statistical mechanics
III^rd B.Sc PHYSICS	Symmetric potential - Hydrogen atom	Quantum Mechanics by Sathya Prakash
NME	Astro physics - Newton's law of gravitation - Satellite motion -	Modern Physics Murugasen
	18-03-2019 to 22-03-2019 Main practical Exams	
I^st B.Sc PHYSICS	25-03-2019 to 29-03-2019 Maxwell - Boltzmann Statistics - Distributive law.	Statistical Mechanics by Briji Lal Subramani

CLASS	PORTIONS COVERED	REFERENCE
III rd B.Sc PHYSICS	Quantum Mechanics Hydrogen atom - two Boby Problem - Schroedinger equation for symmetric potential	Sathya Prakash
NME	Kepler's law - Escape Velocity - Solar system Geocentric and Heliocentric	Modern Physics by Murugasen..
I-st PHYSICS	Revision & test	
III rd PHYSICS	Revision & test	
NME	Revision & test.	

Class	Portion Covered	Reference
	19-6-18 to 29-6-18	
B.Sc I yr PHYSICS	Introduction : Bending of beams; Expression for bending moment : Cantilever	R. Murugesan [Properties of Matter]
B.Sc III yr	Photo-electric emission : laws - Lenard's Experiment : Richardson and Compton experiment	R. Murugesan [Modern Physics]
Allied PHYSICS I yr	Definition - Excess of pressure inside curved surface (curvilinear co-ordinates) - Spherical and cylindrical drops and bubbles	R. Murugesan Allied Physics I & II

Class	Portion Covered 2-01-2018 to 6-01-18	Reference
B.Sc I yr	Determination of by Cardilever oscillations of Young's Modulus Non-Uniform Bending	R Murugasan Properties of Matter
B.Sc III yr	Einsteins - Photoelectric equation - Experimental verification of Photo-electric equation By Millikans Method	Modern Physics R. Murugasan
Allied Physics I yr	Determination of surface tension and Interfacial tension by the Method of drops.	Allied Physics I & II R Murugasan

class	Portion Covered 9-07-18 to 13-7-18	Reference
B.Sc I yr	Uniform Bending - Expression for elevation - Experiment to determine Young's Modulus by Pin and Microscope	Properties of Matter by R Murugesan
B.Sc III yr	Photo-electric cells - Photo emissive cell	Modern Physics by R Murugesan
Allied Physics I yr	Viscous force - Stream line and turbulent motions - Co-efficient of viscosity using graduated burette method	Allied Physics I & II by R Murugesan

Class	Portion covered 16-04-18 to 20-04-18	Reference
I B.Sc PHYSICS	Poisson's Ratio - Relationship between the three - Elastic Moduli	Properties of Matter by R Murugesan
III B.Sc PHYSICS	Photo - Voltaic cell - Photo conductive cell - Applications of photo electric cells.	Modern Physics by R Murugesan
Allied Physics Iyr	Poiseuille's formula - Comparison of Co-efficient viscosities of two liquids using graduated burette, Oswald viscometer	Allied Physics I & II by R Murugesan

Class	Portion covered 23.07.18 to 24.07.18	Reference
I B.Sc Physics	Determination of Young's Modulus by Koering's Method & Revision	Properties of Matter by R Murugesan
III B.Sc Physics	REVISION	Modern Physics by R Murugesan
Allied Physics Iyr	Ostwald's Viscometer and Revision	Allied Physics I & II by R Murugesan Sd. HOD 30/7/18

Class	Portion to be covered	Reference
I B.Sc., III B.Sc., Allied Physics I yr	30-7-18 to 3-08-2018 I CA Examinations	
I B.Sc Physics	06-08-18 to 10-08-18 Introduction to Waves: Progressive wave - characteristics of Progressive wave - Simple harmonic motion. Expression for free oscillation	Properties of Matter by R.Murugasan
III B.Sc Physics	Introduction to spectral terms and notations. Spectral terms and notations - selection rule - Intensity rule - Interval rule	Modern Physics by R.Murugasan
ALLIED Physics I yr	Introduction to Sound, Velocity and frequency of transverse vibrations along a stretched string.	Allied Physics by R.Murugasan
I B.Sc Physics	13-08-18 to 17-08-18 Expression for Damped and forced oscillations - Expression for velocity and sound in a string - Melde's string.	Properties of Matter by R.Murugasan

Class	Portion Covered	Reference
III B.Sc Physics	Fine structure of sodium D - lines - Spectrum of helium - Zeeman effect	Modern Physics by R. Murugesan
Allied Physics Iyr	Laws of vibrations along a stretched string - Determination of A.C frequency using Sonometer.	Allied physics by R. Murugesan
	20-08-18 to 24-08-18	
I. B.Sc Physics	Determination of frequency of the vibrator in transverse mode.	Properties of Matter by R. Murugesan
III B.Sc Physics	Experimental arrangement for the Normal Zeeman effect - Larmor's theorem.	Modern physics by R. Murugesan
Allied Physics Iyr	Ultrasonics - Production of ultrasonic waves by Piezo electric oscillator.	Allied physics by R. Murugesan
	27-08-18 to 1-09-18	
I. B.Sc Physics	Determination of frequency of the vibrator in longitudinal mode using Sonometer	Properties of Matter by R. Murugesan
III B.Sc Physics	Debye's explanation of normal Zeeman effect.	Modern physics by R. Murugesan
Allied Physics Iyr	Production of ultrasonic waves by Magnetostriction method.	Allied physics by R. Murugesan

Class	Portion Covered	Reference
	03-09-18 to 07-09-18	
I B.Sc PHYSICS	Determination of specific gravity of liquid and solid by Melde's string apparatus.	Properties of Matter by R.Murugesan
III B.Sc PHYSICS	Normal Zeeman effect and Anamalous Zeeman effect.	Modern physics by R.Murugesan
Allied Physics Iyr.	Applications of ultrasonics - Acoustics of Buildings.	Allied physics by R.Murugesan
	10-09-18 to 14-09-18	
I. B Sc Physics	Introduction to Acoustics of Buildings - Reverberation Time	Properties of Matter by R.Murugesan
III B.Sc Physics	Theoritical explanation of Anamalous Zeeman effect.	Modern Physics by R.Murugesan
Allied Physics Iyr	Reverberation - Reverberation time - explanation.	Allied physics by R.Murugesan
	17-09-18 to 20-09-18	
I B.Sc Physics	Sabine's formula - Absorption co-efficient - Acoustic aspects of halls and auditorium.	Properties of Matter by R.Murugesan

class	Portion Covered	Reference
III B.Sc Physics	Lande's 'g' factor and explanation of splitting of D_1 and D_2 lines of sodium - Coalescence of spectral lines	Modern physics by R. Murugesan
Allied physics Iyr.	Absorption co-efficient - Sabine's formula (Without derivation)	Allied physics by R. Murugesan
	25-09-18 to 01-10-18 III CA Examination 1/10/18	
I B.Sc Physics	03-10-18 - 06-10-18 Introduction to Ultrasonics, Ultrasonics, Types of Ultrasonic waves and Characteristic properties of Ultrasonic waves	Properties of matter by R. Murugesan & Sound by Brijlal & Subramanyam
III B.Sc Physics	Introduction to spectrum, Types of spectrum, Emission and absorption spectrum. Types of emission and absorption spectrum.	Spectroscopy by Gurdeep chatwal
Allied Physics	Introduction to Interference and definition of Interference in thin films (Reflected light)	Allied Physics by R. Murugesan

class	Portion Covered	Refrence
	8-10-18 to 11-10-18	
I B.Sc Physics	Resonance, half wavelength and quarter wavelength resonance, Piezoelectric effect, Magneto-striction method, Sources of Ultrasonics and other types.	Sound by Brijilal and Subramanyam
III B.Sc Physics	Laws of Absorption, Sources of UV & IR rays	Spectroscopy by Gurudeep Chatwal
Allied physics	Newton's ring, Determination of radius of curvature of lens - Test for optical flatness	Allied Physics by R. Murugasan
	22-10-18 to 26-10-18	
I-B.Sc Physics	Piezo-electric method and Magneto-striction Method and revision	Sound by Brijilal and subramanyam
III B.Sc Physics	Detectors of IR and UR radiation and revision	Spectroscopy by Gurudeep Chatwal
Allied Physics	Diffraction - Definition and theory of Plane transmission Grating and revision	Allied Physics by R. Murugasan

CLASS	TOPICS COVERED	REFERENCE
	19-11-18 to 23-11-18	
I B.Sc PHYSICS	Introduction to Thermodynamics and fundamentals of Thermodynamics	Heat & Thermodynamics by Brijlal and Subramanyam
III B.Sc PHYSICS	Introduction to up 8085 and Basics	Fundamentals of up 8085 by V. Vijendran
Allied Physics	Introduction to Nuclear physics and its basics	Modern physics by R. Murugasan
	26-11-18 to 30-11-18	
I.B.Sc Physics	Thermodynamical systems, surroundings, Heat engines, Carnot's heat Engine	Thermodynamics by Brijlal & Subramanyam
III B.Sc Physics	Number conversion Dec to BIN; BIN to DEC ; HEX to BIN ; BIN to HEX ; (-ve) number representation	up 8085 by V. Vijendran
Allied Physics	Artificial transmutation: Rutherford's Experiment	Modern physics by R. Murugasan

4/12/18

CLASS	TOPIC COVERED	REFERENCE
	03-12-18 to 07-12-18	
I B.Sc PHYSICS	I & II Law of thermodynamics, Concept of Entropy	Thermodynamics by Brijlal & Subramanyam
III B.Sc PHYSICS	Basic logic gates and High impedance state of the up.	up by V. Vijayendran
Allied I-BSc PHYSICS	Types of Nuclear reaction and Energy balance in the nuclear reaction and Q-value	Modern Physics by R. Murugesan
	10-12-18 to 14-12-18	
I-B.Sc PHYSICS	Entropy of an ideal gas, Reversible and irreversible process and their entropies	Thermodynamics by Brijlal & Subramanyam
III PHYSICS	D-flip-flops; D-latches; Registers, Multiplexers and De-Multiplexers	up by V. Vijeyendran
Allied Physics	Introduction to Wave Mechanics; Dual nature of Matter	Modern physics by R. Murugesan

CLASS	TOPIC COVERED	REFERENCE
	17-12-18 to 21-12-18	
I - B.Sc Physics	First and second latent heat Equation ; Internal combustion engine	Thermodynamics by Brijlal & Subramanyam
III PHYSICS	ROM - RAM, up as CPU ; Input and Output unit ; System and Bus structure ; Pin function	up by V. Vijendran
I Allied Physics S. Shirle 22/12/18	Davisson and Germer's Experiment ; Q-Value Eqn for a Nuclear reaction ; Threshold energy of an Endoergic reaction	Modern physics by R. Murugesan
	03-01-19 to 07-01-19	
I B.Sc PHYSICS	Petrol and Diesel Engine	Thermodynamics by Brijlal & subramanyam
III B.Sc PHYSICS	Architecture of 8085	up by V. Vijendran
I Allied physics	De-Broglie wave length ; Definition of Phase velocity & group velocity ; Relationship b/w them	Modern physics by R. Murugesan

CLASS	TOPIC COVERED	REFERENCE
	01/01/19 to 19/01/19 I CA Examination	
	21-01-19 to 25-01-19	
I B.Sc Physics	Entropy temperature diagram Maxwell Thermodynamical Relation and its applications	Thermal Physics Brijlal & Subramanyam
III B.Sc Physics	Introduction to Timing of 8085: Memory read cycle: Memory write cycle	up by 8085 V. Vijendran
I Allied physics	Neutron - classification of neutrons - Discovery of Neutron	Modern physics by R. Murugesan
	28-1-19 to 1-2-19	
I Physics	Introduction to Thermodynamic scale of Temperature and Work scale of Temperature	Thermal physics & Brijlal & Subramanyam
III physics	Memory read cycle and Wait states, Halt state	up by V. Vijendran
Allied physics	Properties of Neutron: Detectors of Neutron	Modern physics by R. Murugesan

CLASS	TOPIC COVERED	REFERENCE
	4-2-19 to 8-2-19	
I. Physics	Gibb's Helmholtz Equation - Definition of free energy, Enthalpy - Third law of thermodynamics	Thermal physics & Statistical Mechanics by Brijlal & Subramanyam
III Physics	Timing diagram for MOV, MVI, LXI, STA, DCX,	up-8085 by V. Vijendran
I Allied physics	Heisenberg's uncertainity principle; Why electrons cannot be inside the nucleus?; Particle Accelerators - Linear accelerator	Modern physics by R Murugesan
	11-2-19 to 22-2-19	
I Physics	Explanation of Third law of Thermodynamics	Thermal physics & Statistical by Brijlal & Subramanyam
III physics	Delay calculations for the programm with & without loop	up 8085 by V. Vijendran
Allied physics	Heisenberg's Uncertainity principle and its illustrations	Modern physics by R. Murugesan

Class	Topic Covered	Reference
	25-2-19 to 1-3-19	
I B.Sc Physics	Applications of Maxwell's thermodynamic Equation	Heat & Thermody-namics by Brijlal & subramanyam
III Physics	Revision	-
Allied physics	Revision	-
	2-3-19 to 9-3-19	
	II CA Examination	
	11-3-19 to 15-3-19	
I Physics	Definition of Pharse-space, and Micro-states and Macro-states	Heat & Thermodynamics by Brijlal & subramanyam
III physics	Timing diagram for IN and OUT instruction	up 8085 by V. Vijendran
Allied physics	Introduction to Fibre-Optics Structure of Fibre Optics, Principle of Fibre optics, Acceptance angle.	Engineering physics by Dr. Mani
	18-3-19 to 22-3-2019	
	Semester Pratical Examination	

class	Topic Covered	Reference
I physics	25-3-19 to 29-3-19 Fermi-Dirac statistics, Electron gas equation. Comparison of three statistics.	Heat & Thermodynamics by Bajlal & subramanyam
III physics	Memory Mapped I/O Difference between Memory Mapped I/O and I/O mapped I/O	8085 by V. Vijendran
Allied physics	classification of Optical fibre - Single mode and multimode fibres - Step index single mode fibre Graded inded multimode fibre, Sptep index multi -mode fibre - Block diagram of fibre optical communication system	Engineering physics by Dr. Mani.
	1-4-19 & 2-4-19	
I physics	Revision	
III physics	Revision	
Allied physics	Revision	

S. Rajalakshmi
6/5/19