SPLIT UP SYLLABUS 2014-15
SUB: MATHS
Class: XII COMMERCE/SCIENCE

MONTH	TOPICS	SUB-TOPICS
APRIL	RELATIONS AND FUNCTIONS	RELATIONS AND FUNCTIONS INVERSE TRIGONOMETRIC FUNCTIONS
JUNE	ALGEBRA	MATRICES DETERMINANTS
JULY	CALCULUS	CONTINUITY AND DIFFERENTIABLITY APPLICATIONS OF DERIVATIVES
AUGUST	CALCULUS	INTEGRALS APPLICATIONS OF THE INTEGRALS DIFFERENTIAL EQUATIONS
SEPTEMBER	VECTOR AND THREE DIMENSIONAL GEOMETRY	VECTOR AND THREE DIMENSIONAL GEOMETRY
OCTOBER	PROBABILITY	PROBABILIY
NOVEMBER	PROBABILITY AND LINEAR EQUATIONS	PROBABILITY LINEAR EQUATIONS
DECEMBER	REVISION AND TEST	REVISION AND TEST
JANUARY	REVISION AND TEST	REVISION AND TEST
FEBRUARY	REVISION AND TEST	REVISION AND TEST

SPLIT UP SYLLABUS 2014-15
SUB: PHYSICS
Class: XII SCIENCE

PRESCRIBED BOOKS:
- Physics Textbook   : NCERT Publication
- Fundamental of Physics   : Pradeep Publication
- Physics Practical   : Laxmi Publication

MONTH	CHAPTER
MARCH	**Unit I: Electrostatics: Chapter-01** 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, Electric flux
APRIL	**Chapter-01** Statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside). **Chapter-02** 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, Conductors and insulators, free charges and bound charges inside a conductor, Dielectrics and electric polarisation, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with dielectric medium between the plates, energy stored in a capacitor, Van de Graaff generator.
JUNE	**Unit II Current Electricity : Chapter-03** Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors; temperature dependence of resistance. emf and potential difference of a cell, internal resistance of a cell, combination of cells in series and in parallel, Kirchhoff's laws and simple applications, Wheatstone bridge, metre bridge, Potentiometer - principle and its applications to measure potential difference and for comparing emf of two cells; measurement of small resistances and internal resistance of a cell. **Unit III Magnetic Effects of Current and Magnetism: Chapter-05** 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, Force between two parallel current-carrying conductors-definition of ampere, straight and toroidal solenoids. Force on a current-carrying conductor in a uniform magnetic field. Torque experienced by a

	current loop in uniform magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.
JULY	**Chapter-05:** Force on a moving charge in uniform magnetic and electric fields, Cyclotron, Current loop as a magnetic dipole and its magnetic dipole moment, Magnetic dipole moment of a revolving electron, Magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis. Torque on a magnetic dipole (bar magnet) in a uniform magnetic field; bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements, Para-, dia- and ferro - magnetic substances, with examples, Electromagnets and factors affecting their strengths, Permanent magnets. **Unit IV: Electromagnetic Induction and Alternating Currents Chapter-06**: Electromagnetic induction; Faraday's law, induced emf and current; Lenz's Law, Eddy currents, Self and mutual inductance, displacement current, Alternating currents, peak and rms value of alternating current/voltage; reactance and impedance; LC oscillations (qualitative treatment only), LCR series circuit, resonance; power in AC circuits, wattless current, AC generator and transformer.
AUGUST	**Unit V: Electromagnetic waves: Chapter-07** Displacement current, Electromagnetic waves and their characteristics (qualitative ideas only), Transverse nature of electromagnetic waves. Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses. **Unit VI: Optics (Periods 30) Chapter-08** Reflection of light, spherical mirrors, mirror formula, Refraction of light, total internal reflection and its applications, optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lensmaker's formula, Magnification, power of a lens, combination of thin lenses in contact, Refraction and dispersion of light through a prism, Scattering of light - blue colour of the sky and reddish appearance of the sun at sunrise and Sunset, Wave optics: wave front and Huygens' principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygens' principle, Interference, Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum. Polarisation, plane polarised light; Brewster's law, uses of plane polarised light and Polaroids. Optical instruments: Human eye, image formation and accommodation, correction of eye defects (myopia, hypermetropia, presbyopia and astigmatism) using lenses, Microscopes and astronomical telescopes(reflecting and refracting) and their magnifying powers, Resolving power of microscopes and astronomical telescopes.

SEPTEMBER	**Unit VII: Dual Nature of Matter and Radiation -** Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light, Matter waves-wave nature of particles, de Broglie relation, Davisson-Germer experiment (experimental details should be omitted; only conclusion should be explained).
	
	Unit VIII: Atoms & Nuclei
	   Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum, Composition and size of nucleus, atomic masses, isotopes, isobars; isotones, Radioactivity alpha, beta and gamma particles/rays and their properties; radioactive decay law.
	   Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear reactor, nuclear fusion.

OCTOBER	**Unit IX: Electronic Devices** Semiconductors; semiconductor diode – I-V characteristics in forward and reverse bias, diode as a rectifier; I-V characteristics of LED, photodiode, solar cell, and Zener diode; Zener diode as a voltage regulator, Junction transistor, transistor action, characteristics of a transistor; transistor as an amplifier (common emitter configuration) and oscillator. Logic gates (OR, AND, NOT, NAND and NOR), Transistor as a switch.
NOVEMBER	**Unit X: Communication Systems** Elements of a communication system (block diagram only); bandwidth of signals (speech, TV and digital data); bandwidth of transmission medium, Propagation of electromagnetic waves in the atmosphere, sky and space wave propagation. Need for modulation, Production and detection of an amplitude-modulated wave. Basic ideas about internet, mobile telephony and global positioning system (GPS)
DECEMBER	Revision and I Preboard
JANUARY	Revision and II Preboard
FEBRUARY	Revision and Board Practical Examination
MARCH	Annual Examination

SPLIT UP SYLLABUS 2014-15
SUB: BIOLOGY
Class: XII SCIENCE

BOOK: Biology
 Publication: NCERT publication

MONTH	CHAPTER
APRIL	Chapter 1. Reproduction in organisms
	Chapter. 2 Sexual reproduction in flowering plants.
	Chapter .3 Human Reproduction.
	Chapter .4 Reproductive health
JUNE	Chapter .5 Principles of inheritance and variation
	Chapter .6 Molecular basis of inheritence
JULY	Chapter .7. Evolution
	Chapter .8 Human health and diseases
AUGUST	Chapter .9 Strategies for enhancement in food production
	Chapter 10 Microbes in human welfare.
SEPTEMBER	Chapter .11 Biotechnology: Principles and processes
	First Term
OCTOBER	Chapter .12 Biotechnology and its applications.
NOVEMBER	Chapter 13 Organisms and Populations
	Chapter .14. Ecosystem
DECEMBER	Chapter 15. Biodiversity and conservation.
	Chapter 16. Environmental issues
JANUARY	Revision
FEBRUARY	Revision
MARCH	Revision

SPLIT UP SYLLABUS 2014-15
SUB: CHEMISTRY
Class: XII SCIENCE

Book : NCERT text book

MONTH	CHAPTER
APRIL	Chapter no. 15 Polymers.
	Chapter no. 10 Haloalkanes & Haloarenes.
	Chapter no. 11 Alcohols, Phenols and Ethers.
JUNE	Chapter no. 12 Aldehydes, Ketones & Carboxylic acids
JULY	Chapter no. 13 Organic compounds containing nitrogen.
	Chapter no. 14 Biomolecules.
	Chapter no. 15 Chemistry in everyday life.
AUGUST	Chapter no 1 Solid state
	Chapter no. 2 Solution
	Chapter no. 4 Chemical kinetics.
SEPTEMBER	Chapter no .5 Surface chemistry.
	Chapter no. 6 General principles and process of isolation and elements.
OCTOBER	Chapter no. 7 P- Block Elements
	Chapter no. 8 D & F – Block Elements.
NOVEMBER	Chapter no. 3 Electrochemistry.
	Chapter no. 9 Co-ordination chemistry.
DECEMBER	Revision. And Mock test.(pre- board 1st)
JANUARY	Revision. And Mock test (pre –board 2nd)
FEBRUARY	Practical exam and preparation leave.
MARCH	Final Board Exam

SPLIT UP SYLLABUS 2014-15
SUB: ENGLISH
Class: XII SCIENCE

MONTH	CHAPTER
MARCH	Prose : 1.The last Lesson-Alphonse Daudet 2.Lost Spring-Anees Jung Poetry : 1.My mother at sixty- six – Kamla Das 2.An Elementary School Classroom in a Slum-Stephen Spender Writing Skills: Notice,Article Writing and Speech Writing
APRIL	Flamingo- Prose : 3.Deep Water-William Douglas 4.The Ratttrap-Selma Lagerlof Poetry : 3. Keeping Quiet-Pablo Neruda *Vistas :* 2.The Tiger King- Kalki Writing Skills: Display Advertisement and Poster Making
JUNE	Poetry : A Thing of Beauty – John Keats Prose : 5.Indigo-Louis Fischer Vistas -4.The Enemy-Pearl S.Buck Writing Skills: Formal & Informal Invitations and their Replies Novel:
JULY	5.Should Wizard Hit Mommy-John Updike 6.On the Face of It – Susan Hill Writing Skills: Formal Letters ASL: Novel:
AUGUST	Flamingo- Poetry :6.Aunt Jennifer's Tigers-Adrienne Rich 6.On the Face of It – Susan Hill Vistas - 7.Evans Tries an O- level- Colin Dexter Writing Skills: Report Writing, Factual description ASL: Novel:
SEPTEMBER	8. Memories of Childhood- The Cutting of My Long Hair - Zitkala-Sa We Too Are Human Beings - Bama Novel: ASL:
OCTOBER	ASL: NOVEL
NOVEMBER	REVISION
DECEMBER	REVISION
JANUARY	REVISION
FEBRUARY	REVISION

SPLIT UP SYLLABUS 2014-15
CLASS XII
Multimedia & Web Technology

Name of Textbook- Multimedia & Web Technology
Pub- Saraswati House Pvt.Ltd.
Author- Reeta Sahoo & Gagan Sahoo

MONTH	CHAPTER
APRIL	**UNIT-1 :INTRODUCTION TO COMPUTER SYSTEMS** **Chap-1:**Database Concepts **Chap-2 :**Database Tool **Chap-3:** Managing Data Records
JUNE	**UNIT-2:NETWORKING AND OPEN STANDARDS** **Chap-4:**Computer Network **Chap-5 :**Open Source Technology
JULY	**UNIT-3:WEB PAGE DEVELOPMENT** **Chap-6:** Working with HTML, **Chap-7:** Review of VBScript **Chap-8:** Introduction to Active Server Pages **Chap-9:** Variables -Constants & Operators in ASP
AUGUST	**UNIT-3:WEB PAGE DEVELOPMENT** **Chap-10:**Built-in Functions and Array in ASP **Chap-11:** Control Structures in ASP **Chap-12:** Procedures and Functions in ASP
SEPTEMBER	**UNIT-3:WEB PAGE DEVELOPMENT** **Chap-13:** Working with ASP Objects **Chap-14:**Text Files and ASP Components **Chap-15:** Working with Database in ASP
OCTOBER	**UNIT-4: MULTIMEDIA AND AUTHORING TOOLS** **Chap-16:** Starting Flash, **Chap-2:** Using Flash Tools **Chap-17:** Basic Formatting in Flash **Chap-18:** Layers-Symbols & Instances in Flash
NOVEMBER	**UNIT-4: MULTIMEDIA AND AUTHORING TOOLS** **Chap-19:** Frame, Tweening & Animation in Flash **Chap-20:** Publishing and Exporting the Flash Movie **Chap-21:** Multimedia Application.
DECEMBER	Revision and tests
JANUARY	Revision and tests

Name of Text- Book : Informatics Practices, By : Sumita Arora,

MONTH	CHAPTER
APRIL - 14	**Unit-II (JAVA Netbeans)** **Chapter-01 (Review of Std-XI)** **Chapter-02 (Review of Std-XI IDE)** **Chapter-03 (JAVA Methods)**
JUNE - 14	**Unit-II (JAVA Netbeans)** **Chapter-06 (Web Application)**
JULY - 14	**Unit-II (JAVA Netbeans)** **Chapter-04 (Inheritance in JAVA)** **Chapter-05 (Database Connectivity JDBC)**
AUGUST - 14	**Unit-III (RDBMS)** **Chapter-01 Review of My SQL** **Chapter-02 Grouping Records in My SQL Database** **Chapter-03 Multiple Tables and Database Transaction**
SEPTEMBER - 14	**Unit-I (Networking and Open standards)** **Chapter-01 (Computer Networking)** **Chapter-02 (Open Source Technology)**
OCTOBER - 14	**Unit-IV (IT Application)** **Chapter-01 (Front End & Back End Concepts)**
NOVEMBER - 14	**Revision.**
DECEMBER - 14	**Revision / I Pre-Board.**
JANUARY – 15	**Revision / II Pre-Board.**
FEBRUARY – 15	**Revision/ Practical Exam.**

SPLIT UP SYLLABUS 2014-15
SUB: HEALTH & PHYSICAL EDUCATION
Class: XII SCIENCE

Educational publishers.- Saraswati house pvt.ltd
Author – Dr. V.K. SHARMA

MONTH	LESSONS
APRIL	Unit I Sports Environment & Society Unit II Adventure Sports & Leadership Training
JUNE	Unit III Sports & Nutrition
JULY	Unit IV Planning in Sports Unit V Postures
AUGUST	Unit VI Children & Sports Unit VII Test & Measurement in Sports
SEPTEMBER	Unit VIII Physiology & Sports Unit IX Biomechanics & Sports
OCTOBER	Unit X Psychology & Sports
NOVEMBER	Unit XI Training in Sports
DECEMBER	Revision and tests
JAN	Revision and tests
FEBRUARY	Revision and tests