

SPLIT UP SYLLABUS FOR CLASS XII ENGLISH CORE, SESSION 2018-19**CLASS: XII****SUBJECT: ENGLISH CORE**

MONTH	TOPIC/ CHAPTERS
April	1. Introduction to Class XII English Core (Code 301) Curriculum 2. The Last Lesson 3. My Mother at Sixty-Six
June	1. The Tiger King 2. Lost Spring 3. The Invisible Man (Chap. 1-5) 4. Notice/Poster/Advertisements/Invitation/Replies 5. An Elementary School Classroom
July	1. Reading Comprehension Practice 2. Note-making and Summarizing 3. Deep Water 4. The Enemy 5. The Invisible Man (Chap. 6-18)
Aug	1. The Rattrap 2. Should Wizard Hit Mommy 3. Letters based on verbal/visual input (making enquiries, registering complaints, asking for and giving information, placing orders and sending replies). 4. Keeping Quiet 4. Indigo 5. The Invisible Man(Chap. 19-22)
Sep	1. Going Places 2. Letters to the Editor (giving suggestion/opinion on an issue) 3. Application for a job with a bio-data or resume 4. Letter to the school or college authority regarding admission, school issues, requirements/suitability of courses etc. 5. On the Face of It 6. Article/speech/Debate/report writing. 7. The Invisible Man(Chap. 23-Epilogue)
Oct	1. Evans Tries an O-Level 2. A Thing of Beauty

Nov	1. Memories of Childhood 2. Aunt Jennifer's Tigers 4. Revision
Dec	Revision Work
Jan	Revision Work
Feb	Revision Work

SPLIT UP SYLLABUS

SESSION: - 2018-19

CLASS XII PHYSICS

Month	Topic
APRIL	<p>Chapter-1: Electric Charges and Fields 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.</p>
JUNE	<p>Chapter- 1 Electric Charges and Field (Continuation) Electric flux, 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).</p> <p>Chapter-2: Electrostatic Potential and Capacitance 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 and without dielectric medium between the plates, energy stored in a capacitor.</p> <p>Chapter-3: Current Electricity 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.</p>

JULY	<p>Chapter-3: Current Electricity (Continuation) Internal resistance of a cell, potential difference and emf 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 internal resistance of a cell.</p>
	<p>Chapter-4: Moving Charges and Magnetism Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight and toroidal solenoids (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields, Cyclotron. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter</p>
	<p>Chapter-5: Magnetism and Matter 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.</p>
August	<p>Chapter-6: Electromagnetic Induction Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Eddy currents. Self and mutual induction.</p>
	<p>Chapter-7: Alternating 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, wattles current. AC generator and transformer.</p>
	<p>Chapter-8: Electromagnetic Waves Basic idea of displacement current, Electromagnetic waves, their characteristics, their Transverse nature (qualitative ideas only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.</p>

<p>SEPTEMBER</p>	<p>Chapter–9: Ray Optics and Optical Instruments</p> <p>Ray Optics: 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, combination of a lens and a mirror, refraction and dispersion of light through a prism. Scattering of light - blue colour of sky and reddish appearance of the sun at sunrise and sunset. Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.</p>
	<p>Chapter–10: Wave Optics</p> <p>Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light, diffraction due to a single slit, width of central maximum, resolving power of microscope and astronomical telescope, polarisation, plane polarised light, Brewster's law, uses of plane polarised light and Polaroids.</p>
	<p>Chapter–11: Dual Nature of Radiation and Matter</p> <p>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).</p>
<p>OCTOBER</p>	<p>Chapter–12: Atoms</p> <p>Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum.</p> <p>Chapter–13: Nuclei</p> <p>Composition and size of nucleus, 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 fusion.</p>
	<p>Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits</p> <p>Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier; Special purpose p-n junction diodes: LED, photodiode, solar cell and Zener diode and their characteristics, zener diode as a voltage regulator.</p> <p>Junction transistor, transistor action, characteristics of a transistor and transistor as an amplifier (common emitter configuration), basic idea of analog and digital signals, Logic gates (OR, AND, NOT, NAND and NOR).</p>

NOVEMBER	Chapter-15: 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, satellite communication. Need for modulation, amplitude modulation Revision for I Pre board
DECEMBER	FIRST PRE BOARD EXAM AND REVISION/ REMEDIAL CLASSES
JANUARY	SECOND PRE BOARD EXAM AND REVISION/REMEDIAL CLASSES
FEBRUARY	AISSCE PRACTICAL EXAM AND REMEDIAL CLASSES

SPLIT UP SYLLABUS FOR CHEMISTRY (043) CLASS XII

MONTH	UNIT	NAME OF CHAPTER	NO OF PERIODS
APRIL	1	SOLID STATE	10
JUNE	2	HALOALKANES AND HALOARENES	10
	3	SOLUTIONS	10
	4	ELECTRO CHEMISTRY	12
JULY	5	ALCOHOLS ,PHENOLS & ETHERS	10
	6	CHEMICAL KINETICS	10
	7	SURFACE CHEMISTRY	8
AUGUST	8	ALDEHYDE ,KETONES & CARBOXYLIC ACID	10
	9	GENERAL PRINCIPLES AND PROCESS OF ISOLATION OF ELEMENTS	8
	10	POLYMERS	8
SEPTEMBER	11	AMINES	10
	12	P- BLOCK ELEMENTS	12
	13	d & f BLOCK ELEMENTS	12
OCTOBER	14	CO ORDINATION COMPOUNDS	12
	15	BIOMOLECULES	12
NOVEMBER	16	CHEMISTRY IN EVERYDAY LIFE	6

SPLIT UP SYLLABUS FOR PRACTICAL CHEMISTRY (043) CLASS XII

MONTH	SI	EXPERIMENTS
JUNE/JULY	1	Volumetric Analysis
	2	Core Experiments
AUGUST / SEPTEMBER	3	Qualitative Analysis
	4	PROJECT

Split up syllabus 2018-19 Computer Science(083)

Class XII

Unit	Topic	Marks
1	OBJECT ORIENTED PROGRAMMING IN C++	30
2	DATA STRUCTURE	14
3	DATABASE MANAGEMENT SYSTEM AND SQL	8
4	BOOLEAN ALGEBRA	8
5	COMMUNICATION TECHNOLOGIES	10
	Total	70

Month	Topic
April-June	<p>Unit 1: Object Oriented Programming in C++ Review: C++ covered in class XI, Object Oriented Programming: Concept of Object Oriented Programming– Data hiding, Dataencapsulation, Class and Object, Abstract class and Concrete class, Polymorphism (Implementation of polymorphism using Function overloading as an example in C++); Inheritance, Advantages of Object Oriented Programming over earlier programming methodologies,</p> <p>Implementation of Object Oriented Programming concepts in C++: Definition of a class, Member of a class – Data Members and Member Functions (methods), Using Private and Public visibility modes, default visibility mode (private); Member function definition: inside class definition and outside class definition using scope resolution operator (::); accessing members from object (s), Objects as function arguments–pass by value and</p>

	<p>pass by reference;</p> <p>Constructor and Destructor: Constructor: special characteristics, declaration and definition of a constructor, default constructor, overloaded constructors, copy constructor, constructor with default arguments;</p> <p>Destructor: Special Characteristics, declaration and definition of destructor;</p> <p>Inheritance (Extending Classes): Concept of Inheritances, Base Class, Derived classes, protected/visibility mode; Single level inheritance, Multilevel inheritance and Multiple inheritance, Privately derived, publicly derived and Protectedly derived class, accessibility of members from objects and within derived class (es);</p>
<p>July</p>	<p>Data File Handling: Need for a data file, Types of data files–Text file and Binary file;</p> <p>Text File: Basic file operations on text file: Creating/Writing text into file, Reading and Manipulation of text from an already existing text File (accessing sequentially).</p> <p>Binary File: Creation of file, Writing data into file, Searching for required data from file, Appending data to a file, Insertion of data in sorted file, Deletion of data from file, Modification of data in a file;</p> <p>Implementation of above mentioned data file handling in C++; Components of C++ to be used with file handling: Header file: fstream.h; ifstream, ofstream, classes; Opening a text file in—in, out, and app modes;</p> <p>Using cascading operators (>>, <<) for writing text to the file and reading text from the file; open (), get (), read (), put (), write(), getline() and close() functions; Detecting end-of-file (with or without using eof() function), tellg(), tellp(), seekg(), seekp());</p>
<p>August</p>	<p>Pointers:</p> <p>Introduction to Pointer, Declaration and Initialization of Pointer; Dynamic memory allocation/de-allocation operators: new, delete; Pointers and Arrays: Array of Pointers, Pointer to an array (1 dimensional array), Function returning a pointer, Reference variables and use of alias; Function call by reference. Pointer to structure: De-reference/Deference operator: *, ->; self referential structure;</p> <p>Unit 2: Data Structures</p> <p>Introduction to data structure- array, stack queues primitive and non-primitive data structure, linear and non-linear structure, static and dynamic data structure.</p> <p>Arrays:</p> <p>One and two Dimensional arrays: Sequential allocation and address calculation;</p> <p>One dimensional array: Traversal, Searching (Linear, Binary Search), Insertion of an element in an array, deletion of an element from an array, Sorting</p>

	<p>(Insertion, Selection, Bubble)</p> <p>Two-dimensional arrays: Traversal Finding sum/difference of two NxM arrays containing numeric values, Interchanging Row and Column elements in a two dimensional array;</p>
September	<p>Stack (Array and Linked implementation of Stack): Introduction to stack (LIFO: Last in First out Operations) Operations on stack (PUSH and POP) and its Implementation in C++, Converting expressions from INFIX to POSTFIX notation and evaluation of Postfix expression;</p> <p>Queue: (Array and Linked Implementation) Introduction to Queue (FIFO: First in First out operations) Operations on Queue (Insert and Delete and its Implementation in C++, circular queue using array.</p> <p>Unit 3: Database Management System and SQL</p> <p>Data base Concepts: Introduction to data base concepts and its need.</p> <p>Relational data model: Concept of domain, tuple, relation, key, primary key, alternate key, candidate key;</p> <p>Relational algebra: Selection, Projection, Union and Cartesian product;</p> <p>Structured Query Language:</p> <p>General Concepts: Advantages of using SQL, Data Definition Language and Data Manipulation Language;</p> <p>Data Types: NUMBER/DECIMAL, CHARACTER/VARCHAR/VARCHAR2, DATE;</p> <p>SQL COMMANDS: CREATE TABLE, DROP TABLE, ALTER TABLE, UPDATESET....., INSERT, DELETE;</p>
October	<p>SELECT, DISTINCT, FROM, WHERE, IN, BETWEEN, GROUP BY, HAVING, ORDER BY;</p> <p>SQL functions: SUM (), AVG (), COUNT (), MAX () AND MIN (); Obtaining results (SELECT query) from 2 tables using equi-join, Cartesian product and Union</p> <p>Note: Implementation of the above mentioned commands could be done on any SQL supported software on one or two tables.</p> <p>Unit 4: Boolean Algebra</p> <p>Role of Logical Operations in Computing.</p> <p>Binary-valued Quantities, Boolean Variable, Boolean Constant and Boolean</p>

	<p>Operators: AND, OR, NOT; Truth Tables; Closure Property, Commutative Law, Associative Law, Identity law, Inverse Law, Principle of Duality, Idempotent Law, Distributive Law, Absorption Law, Involution Law, DeMorgan's Law and their applications;</p> <p>Obtaining Sum of Product (SOP) and Product of Sum (POS) form the Truth Table, Reducing Boolean Expression (SOP and POS) to its minimal form, Use of Karnaugh Map for minimization of Boolean expressions (up to 4 variables);</p> <p>Application of Boolean Logic: Digital electronic circuit design using basic Logic Gates (NOT, AND, OR, NAND, NOR)</p> <p>Use of Boolean operators (NOT, AND, OR) in SQL SELECT statements Use of Boolean operators (AND, OR) in search engine queries.</p>
November	<p>Unit 5: Communication Technologies</p> <p>Evolution of Networking: ARPANET, Internet, Interspace Different ways of sending data across the network with reference to switching techniques (Circuit and Packet switching).</p> <p>Data Communication terminologies: Concept of Channel, Bandwidth (Hz, KHz, MHz) and Data transfer rate (bps, Kbps, Mbps, Gbps, Tbps).</p> <p>Transmission media: Twisted pair cable, coaxial cable, optical fiber, infrared, radio link, microwave link and satellite link.</p> <p>Network devices: Modem, RJ45 connector, Ethernet Card, Router, Switch, Gateway, wifi card.</p> <p>Network Topologies and types: Bus, Star, Tree, PAN, LAN, WAN, MAN.</p> <p>Network Protocol: TCP/IP, File Transfer Protocol (FTP), PPP, SMTP, POP3 Remote Login (Telnet), and Internet Wireless/Mobile Communication protocol such as GSM, CDMA, GPRS, and WLL.</p> <p>Mobile Telecommunication Technologies: 1G, 2G, 3G and 4G; Mobile processors; Electronic mail protocols such as SMTP, POP3 Protocols for Chat and Video Conferencing VOIP Wireless technologies such as Wi-Fi and WiMax</p> <p>Network Security Concepts:</p> <p>Threats and prevention from Viruses, Worms, Trojan horse, Spams</p> <p>Use of Cookies, Protection using Firewall, https;</p> <p>India IT Act, Cyber Law, Cyber Crimes, IPR issues, hacking.</p> <p>Introduction To Web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML); Hyper Text Transfer Protocol (HTTP); Domain Names; URL; Website, Web browser, Web Servers; Web Hosting, Web Scripting – Client side (VB Script, Java Script, PHP) and Server</p>

	side (ASP, JSP, PHP), Web 2.0 (for social networking) E-commerce payment transactions using online banking, mobile banking and payment apps and services.
December	Revision & Project Work
January	Revision
February	CBSE Practical Exam
March	CBSE Exam

CLASS-XII: (PRACTICAL) (2018-19)

S.NO	Description	Marks
1	Programming in C++	10
2	SQL Commands	5
3	Project Work	5
4	Practical	6
5	Viva Voice	4
	TOTAL	30

Marks:30

1. One programming problem in C++ to be developed and tested in Computer during the examination.

Marks are allotted on the basis of following:

Logic : 6 Marks

Documentation/indentation : 2 Marks

Output presentation : 2 Marks

Notes: The types of problem to be given will be of application type from the following topics

- Arrays (One dimensional and two dimensional)
- Class(es) and objects
- Stack using arrays and or linked implementation
- Queue using arrays (circular) and or linked implementation
- Binary File operations (Creation, Displaying, Searching and modification)
- Text File operations (Creation, Displaying and modification)

2. SQL Commands 05

Five Query questions based on a particular Table / Relation to be tested practically on Computer during the examination. The command along with the result must be written in the answer sheet.

3. Project Work 05

The project has to be developed in C++ language with Object Oriented Technology and also should have use of Data files. (The project is required to be developed in a group of 2-4 students)

- Presentation on the computer
- Project report (Listing, Sample Outputs, Documentations)
- Viva
- * 1 mark is for innovation while writing programme.

4. Practical File 06

Must have minimum 20 programs from the following topics

- Arrays (One dimensional and two dimensional, sorting, searching, merging, deletion & insertion of elements)
- Class(es) and objects
- Stacks using arrays and linked implementation
- Queue using arrays & linked implementation (circular also).
- File (Binary and Text) operations (Creation, Updation, Query)
- Any computational Based problems
- 15 SQL commands along with the output based on any table/relation:

5. Viva Voce 04

Viva will be asked from syllabus covered in class XII and the project developed by student.

SPLIT UP SYLLABUS CLASS XII

MATHEMATICS

MONTH	NO OF WORKING DAYS	TOPIC	NO.OF PERIODS
APRIL	11	RELATIONS & FUNCTIONS	10
JUNE	21	INVERSE TRIGNOMETRIC FUNCTIONS	12
JULY	24	MATRICES	13
		DETERMINANTS	20
AUGUST	21	CONTINUITY &DIFFERENTIABILITY	12
		APPLICATION OF DERIVATIVES	18
SEPTEMBER	24	INDEFINITE INTEGRAL	22
		DEFINITE INTEGRALS &APPLICATIONS	8
		DIFFERENTIAL EQUATION	10
OCTOBER	19	VECTOR ALGEBRA	10
		3-D	12
		LINEAR PROGRAMMING	10
NOVEMBER	22	PROBABILITY	10
REVISION			10

SPLIT UP SYLLABUS

CLASS XII

SUBJECT: BIOLOGY

Month	Topic/Chapter
April 2018	Reproduction in Organism
June	Sexual Reproduction in flowering plants Human re-production Reproductive Health
July	Principles of inheritance and variation Molecular basis of Inheritance
August	Evolution Human health and disease Strategies for Enhancement in Food production
September	Microbes in Human Welfare Biotechnology- Principles and Process Bio-technology and its application.
October	<u>Half Yearly Exam.</u> Organism and Population Ecosystem Biodiversity and its conservation
November	Environmental Issues Revision