

SYLLABUS

2014-2015

CLASS : XII
(Science)



RUKMINI DEVI
PUBLIC SCHOOL

Recog. by Directorate of Education, Govt. of NCT of Delhi
Aff. to C.B.S.E., Ministry of H.R.D., Govt. of India

 BRITISH COUNCIL | International School Award
2010-2013

CD Block, Pitampura, Delhi-110034

Tel. : 27314235, 27313693; Fax : 27311473; E-mail : contact@rdpschool.edu.in; Website : www.rdpschool.edu.in

Our Vision : Excellence in Education

Our Mission : To strive for the strong foundation of young learners in the age group of 5+ to 17 years which facilitate them to become active participants in life long learning and earning by integrating both national and international dimensions in the curriculum supported by the state-of-the-art infrastructure.

Our Philosophy : *"You are a Child of immortality, Your roots go deep to eternity, Your reach is unto infinity."*

" A child is not a vessel to be filled but a lamp to be lighted."

INDEX**Class: XII**

	Page No.
1. Introduction, Evaluation	1-2
2. Examination Schedule	3
3. English (301)	4-5
4. Mathematics (041)	6-7
5. Physical Education (048)	8-12
6. Chemistry (043)	13-17
7. Physics (042)	18-21
8. Biology (044)	22-25
9. Computer Science (083)	26-29
11. Economics (030)	30-31
12. Physical and Health Education (502)	32
13. General Studies (503)	33
14. List of Holidays	34
15. Year Planner.....	35

RUKMINI DEVI PUBLIC SCHOOL
Class XII (Science)

Class : XII

Introduction: This booklet contains the syllabus along with a tentative programme of activities, functions and the school almanac.

Evaluation System:

1. There would be a system of formative Assessments and other assessments for each subject as per the prescribed syllabus and test schedule.

Terms	I				II	
Exam/Test	CT-1	June Test	CT-2	First Term Exam	CT-3	Pre -Board Exam
Maximum Marks	25	*	25	*	*	*

**Maximum Marks in June Test, First Term Exam, CT-3 and Pre Board Exam will vary w.r.t. each subject*

- These test would aim at evaluating the understanding of the students and preparing them for their Final Exam.
- *CT-1, 2, & First Term Exam will include only the syllabus prescribed for that particular cycle/term while CT-3 Exam and Pre Board Exam will include the entire syllabus.
- In case there happens to be a holiday on the day of a particular test, the test will be held on the next working day.
- It is compulsory for each student to appear in all the tests.
- Each student should have 75 % of attendance in the session to appear in Final Board Exam.
- Should a student fail to appear for a test/exam (whatever grounds), he / she would have to pay Rs. 200/- per test and compulsorily appear in the retest/exam of the same. The amount would be deposited to the incharge before the retest.

Note : Please see page 3 for Examination schedule.

2. The answer sheets of Class Tests and other Exams having been checked by the teacher will be sent to the parents for their information and signature / acknowledgment.
 - The answer sheets after being signed by the parents have to be sent to the concerned class teacher the very next day for verification .
 - Any re- totaling / rechecking of answer sheets will not be entertained, once the student receives the answer copy and leaves the classroom.
3. Scheme of studies and their evaluation is as per CBSE Curriculum:
 - The subjects in which marks have to be awarded include : English, Mathematics/ Physical Education, Chemistry, Physics, Biology / Computer Science/ Physical Education / Economics.
 - The following compulsory internal assessment subjects/activities/qualities will be awarded grades as per the under mentioned grade key on the basis of continuous and comprehensive evaluation:
 - Physical & Health Education
 - General Studies
 - Work Education : The student has to opt for any one of the following options
(a) Textile Designing (b) Applied Art (c) Craft (d) Electronics (e) Indian Dance (f) Contemporary Dance (g) Vocal Music (h) Instrumental Music (i) Dramatics.
 - Personal & Social Qualities : These include Regularity, Punctuality, Cleanliness, Attitude towards Teachers & Schoolmates and Participation in School Programmes.

Grade Key

Grade	A1	A2	B1	B2	C1	C2	D1	D2	E
Criteria	The top 1/8 of the passed candidate	The next 1/8 of the passed candidate	The next 1/8 of the passed candidate	The next 1/8 of the passed candidate	The next 1/8 of the passed candidate	The next 1/8 of the passed candidate	The next 1/8 of the passed candidate	The next 1/8 of the passed candidate	Failed candidate

Examination Schedule		Session: 2014-2015				Class- XII (Science)	
Subject	Test/Exam	*CT-1	**June Test	*CT-2	**First Term Exam	**CT-3	Pre-Board
English		28.04.14		21.07.14		24.11.14	
Mathematics /Physical Education		05.05.14		28.07.14		27.11.14	
			20.06.14		08.09.14		22.12.14 to 13.01.15
Chemistry		12.05.14	to	04.08.14	to	20.11.14	
			30.06.14		22.09.14		
Physics		19.05.14		12.08.14		17.11.14	
Biology/ Computer Science/ Economics/ Physical Education		23.05.14		20.08.14		01.12.14	
						Date Sheet: Chemistry - 22.12.14 English - 26.12.14 Maths/Phy. Ed. - 30.12.14 Physics - 09.01.15 Bio./Comp./Eco. /Phy. Ed. - 13.01.15	
* MM : 25; Duration : 45 minutes				**MM : Varies w.r.t. each subject; Duration : 3 hrs			

Subject Code : 301 - English Core		Syllabus: 2014-2015		Class : XII
Prescribed Books: 1. Flamingo, Text book class XII (Core Course) NCERT 2. Vistas, Supplementary Reader in English class XII (Core Course) NCERT 3. Novel – The Invisible Man (H.G. Wells)				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT-1 (25)	15.04.14 to 27.04.14	BOOK 1 : L – 1: The last lesson, Poem 1 – My Mother at Sixty Six BOOK 2 : L – 1: The Tiger King Writing Skills : Notice, Poster, Letter to Editor Reading Skills : Reading Comprehension, Note – Making & Summary		28.04.14
CT-2 (25)	28.04.14 to 20.07.14	BOOK 1 : L – 2: Lost – Spring Stories of Stolen Childhood, Poem 2 – An Elementary School Classroom in a slum L – 3: Deep Water L – 4: The Rattrap, Poem 3 – Keeping Quiet L – 5: Indigo, Poem 4 – A Things of Beauty BOOK 2 : L – 3: Should Wizard Hit Mommy? Writing Skills : Article Writing		21.07.14
	21.07.14 to 07.09.14	BOOK 1 : L – 6: Going Places BOOK 2 : L – 2: The Enemy L – 4: On the Face of it Writing Skills : Job – Application, Report Writing, Advertisements. Reading Skills : Reading Comprehension, Note – Making & Summary		

First Term Exam (100)	08.09.14 to 22.09.14	<p style="text-align: center;">Novel: Ch – 1 – 10: (Self Reading)</p> <p style="text-align: center;">Syllabus covered from 15.04.14 till 07.09.14 + Assignments Provided</p>	
CT – 3 (100)	23.09.14 to 23.11.14	<p>BOOK 1 : Poem 5 : Aunt Jennifer's Tigers</p> <p>BOOK 2 : L – 5: Evans Tries an O – Level L – 6: Memories of Childhood</p> <p>Writing Skills : Factual description, Business and Official letters, Invitations, Debate and Speech + Revision of Entire Syllabus</p> <p>Note : Complete Syllabus would be covered in CT – 3</p>	24.11.2014
	24.11.14 Till Final exam	<p style="text-align: center;">Revision and Discussion of Sample Papers</p> <p style="text-align: center;">Novel: Ch – 11 – 15: (Self Reading)</p> <p style="text-align: center;">Pre Board : Date 26.12.2014</p> <p style="text-align: center;">Syllabus: Complete syllabus covered during the session + Assignments provided</p>	
Final Exam (100)	Date sheet will be provided by CBSE	<p style="text-align: center;">Complete Syllabus covered during the session</p> <p style="text-align: center;">+</p> <p style="text-align: center;">Assignments Provided</p>	
<p>Reference Books: Oxford Communicative English (class 12).</p>			

Subject Code : 041 - Mathematics		Syllabus : 2014-2015		Class : XII
Prescribed Books : Mathematics – A Textbook for Class XII Part I-II (NCERT)				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT - 1 (25)	15.04.14 to 04.05.14	Ch 1 : Ch 2 : Ch 3 : Ch 4 :	Relations and Functions Inverse Trigonometric Functions Matrices Determinants	05.05.2014
CT - 2 (25)	05.05.14 to 27.07.14	Ch 5 : Ch 6 : Ch 7 :	Continuity and Differentiability Application of Derivatives Integrals (Ex 7.1 to Ex 7.7)	28.07.2014
	28.07.14 to 07.09.14	Ch 7 : Ch 8 : Ch 9 : Ch 12 :	Integrals (Contd. Ex 7.8 to Ex 7.11) Application of Integrals Differential Equations Linear Programming + Revision	
First Term Exam (100)	08.09.14 to 22.09.14	Syllabus covered from 15.04.14 to 07.09.14 + Assignments Provided		

CT - 3 100	23.09.14 to 26.11.14	Ch 10 : Vectors Ch 11 : Three Dimensional Geometry Ch 13 : Probability + Revision Note : Complete Syllabus would be covered in CT 3	27.11.14
	27.11.14 Till Final exam	Revision of the entire syllabus and Discussion of Sample Papers Pre Board : Date 30.12.2014 Syllabus: Complete syllabus covered during the session + Assignments provided	
Final Exam 100	Date sheet will be provided by CBSE	Complete Syllabus covered during the session + Assignments Provided	
Reference Book : Mathematics for Class XII: R.D. Sharma, Mathematics for Class XII: M.L. Aggarwal Mathematics for Class XII: R.S. Aggarwal			

Subject Code : 048 - Physical Education (Theory)		Syllabus : 2014-2015		Class : XII
Prescribed Books : Saraswati Health & Physical Education				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT-1 25	Against Maths 15.04.14 to 04.05.14	Part A Unit-1 : Sports Environment & Society Unit-2 : Adventure Sports & leadership Training Unit-3 : Sports & Nutrition		05.05.14
	Against Biology 15.04.14 to 22.05.14	Part B Unit-1 : 1.1 History of the Game / Sport 1.2 Latest General Rules of the Game / Sport 1.3 Specifications of Playfield and Sport Equipment.		23.05.14
CT-2 25	Against Maths 05.05.14 to 27.07.14	Part A Unit-4 : Planning in Sports Unit-5 : Postures Unit-6 : Children & Sports		28.07.14
	Against Biology 23.05.14 to 19.08.14	Part B Unit I : 1.4 Important Tournaments and Venues 1.5 Sports Personalities 1.6 Proper Sportswear and its importance Unit II : 2.1 Fundamental skills of the Game / Sport 2.2 Specific Exercises of warm – up and conditioning 2.3 Related Sports Terminologies		20.08.14

	Against Maths 28.07.14 to 07.09.14	Part A Unit-7 : Test & Measurement in Sports Unit-8 : Physiology & Sports Unit-9 : Biomechanics & Sports *Part B Unit 2 : 2.3 Specific Exercises of Warm-up & conditioning 2.4 Sports Awards 2.5 Common sports Injuries & its Prevention	
	Against Biology 20.08.14 to 07.09.14		
First Term Exam 70	08.09.14 to 22.09.14	Syllabus covered from 15.04.14 to 07.09.14 + Assignments Provided	
CT-3 70	Against Maths 23.09.14 to 26.11.14	Part A Unit 10 : Psychology & Sports Unit 11 : Training in Sports *Part B Unit-2 : 2.6: SGFI & its Organizational Set Up	27.11.14
	Against Biology 23.09.14 to 30.11.14		01.12.14

	27.11.14 till Final Exam	Revision of the entire syllabus and Discussion of Sample Papers Pre Board : 30.12.14 Syllabus: Complete syllabus covered during the session + Assignments provided
Final Exam 70	Date sheet will be provided by CBSE	Complete Syllabus covered during the session + Assignments Provided
<p>* Part B relates to any one game/ sports chosen by the student out of Basket Ball, Handball, Kho Kho & Volley Ball</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Physical Education & Health by Dr. A.K. Srivastava & Dr. N.K. Gaur. 2. Together with Physical Education by S. Sahni 		

Subject Code : 048 - Physical Education (Practical)		Syllabus : 2014-2015	Class : XII
Prescribed Books : Health & Physical Education (Saraswati Publication)			
TEST/EXAM (M.M.)	DURATION	PARTICULARS	
	Against Maths 15.04.14 to 04.05.14	AAHPHER TEST (Score of ten minimum students) <ul style="list-style-type: none"> - Pull ups (for boys); flexed arm hang (for girls) - Flexed leg sit ups - 50 m yard dash - Standing Broad Jumps - Shuttle run - 600 yard run/walk 	
	Against Biology 15.04.14 to 22.05.14		
	Against Maths 05.05.14 to 27.07.14	ATHLETICS: <ul style="list-style-type: none"> - Middle & Long distance race - Throws 	
	Against Biology 23.05.14 to 19.08.14		
	Against Maths 28.07.14 to 07.09.14	Specific Exercises of warm up and conditioning for different game or sports YOGA	

	Against Biology 20.08.14 to 07.09.14	AEROBICS ASANAS : Corrective Asanas, Meditative Asanas and Relaxation Asanas,
First Term Exam 30	08.09.14 to 22.09.14	Practicals Completed from 15.04.14 to 07.09.14 + Assignments Provided
	Against Maths 23.09.14 to 26.11.14	SKILL OF ANY CHOSEN GAME - Fundamental skills of game of specialization - Latest General Rules of the Game/ Sport - Specifications of Play Court or Grounds
	Against Biology 23.09.14 to 30.11.14	
	27.11.14 till Final Exam	Revision of the entire syllabus and Discussion of Sample Papers Syllabus: Complete syllabus covered during the session + Assignments provided
Final Exam 30	Date sheet will be provided by CBSE	Practical: Physical Fitness Test + VIVA + Record File

Subject Code : 043 - Chemistry (Theory)		Syllabus : 2014-2015		Class : XII
Prescribed Books: 1. Book – 1 & 2 Chemistry, A Textbook for class XII (NCERT)				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT-1 (25)	15.04.14 to 11.05.14	Book 1 Unit 1 : The Solid State Unit 2 : Solutions Unit 3 : Electrochemistry Unit 4 : Chemical Kinetics		12.05.14
CT-2 (25)	12.05.14 to 03.08.14	Unit 5 : Surface Chemistry Unit 6 : General Principles and Processes of Isolation of Elements Unit 7 : The p – Block Elements Unit 8 : The d & f – Block Elements Unit 9 : Co – ordination Compounds		04.08.14
	04.08.14 to 07.09.14	Book 2 Unit 10 : Haloalkanes & Haloarenes Unit 11 : Alcohols, Phenols & Ethers		
First Term Exam (70)	08.09.14 to 22.09.14	Syllabus Covered from 15.04.14 to 07.09.14 + Assignments Provided		

CT-3 70	23.09.14 to 19.11.14	Unit 12 : Aldehydes, Ketones & Carboxylic Acids Unit 13 : Amines Unit 14 : Biomolecules Unit 15 : Polymers Unit 16 : Chemistry in everyday life + Revision Note : Complete Syllabus would be covered in CT – 3	20.11.14 Note: Complete syllabus would be covered in CT-3
	20.11.14 till Final Exam	Revision and Discussion of Sample Papers Pre Board : Date 22.12.14 Syllabus: Complete syllabus covered during the session + Assignments provided	
Final Exam 70	Date sheet will be provided by CBSE	Complete Syllabus covered during the session + Assignments Provided	
Reference Books: (i) Dinesh's Companion Chemistry for class XII (ii) Pradeep's New Course Chemistry for class XII			

Subject Code : 043 - Chemistry (Practical)		Syllabus : 2014-2015	Class : XII
TEST/EXAM (M.M.)	DURATION	PARTICULARS	
	15.04.14 to 11.05.14	<p>Qualitative Analysis</p> <p>1. Determination of one cation and one anion in a given salt. Cations: Pb^{2+}, Cu^{2+}, As^{3+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Zn^{2+}, Co^{2+}, Ni^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+. Anions: CO_3^{2-}, S^{2-}, SO_3^{2-}, SO_4^{2-}, NO_2^-, NO_3^-, Cl^-, Br^-, I^-, PO_4^{3-}, $C_2O_4^{2-}$, CH_3COO^-</p> <p style="text-align: center;">Allocation of *Project</p>	
	12.05.14 to 03.08.14	<p>Surface Chemistry</p> <p>2(a) Preparation of one lyophilic and lyophobic sol. Lyophilic sol starch, egg albumin and gum Lyophobic sol aluminum hydrozide, ferric hydroxide, arsenious sulphide.</p> <p>2(b) Study of the role of emulsifying agents in stabilizing the emulsion of different oils.</p> <p>Chemistry Kinetics</p> <p>3 (a) Effect of concentration and temperature on the rate of reaction between $Na_2S_2O_3$ & HCl 3 (b) Study of reaction rates of any one of the following: (i) Reaction of iodide ion which hydrogen peroxide at room temperature using different concentration of iodide ions. (ii) Reaction between potassium iodate (KIO_3) and sodium sulphite (Na_2SO_3) using starch solution as indicator (Clock reaction)</p> <p>Thermochemistry</p> <p>4. Change in enthalpy after mixing chloroform and acetone.</p> <p>Electrochemistry</p> <p>5. Variation of cell potential in $Zn / Zn^{2+} Cu^{2+} / Cu$ with change in concentration of electrolytes ($CuSO_4$ or $ZnSO_4$) at room temperature.</p>	

	04.08.14 to 07.09.14	<p>Chromatography</p> <p>6 (a) Separation of pigments from extracts of leaves and flower by paper chromatography and to determine Rf values.</p> <p>6 (b) Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in Rf values to be provided)</p> <p>Preparation of Inorganic Compounds</p> <p>7 (a) Preparation of double salt of ferrous ammonium sulphate or potash alum</p> <p>7 (b) Preparation of potassium ferric oxalate.</p> <p>Quantitative Analysis</p> <p>8. Determination of concentration / Molarity of KMnO_4 solution by titrating it against a standard solution of:</p> <p>(a) Oxalic acid, (b) Ferrous ammonium sulphate.</p> <p style="text-align: center;">Submission of Practical File – 01.09.14</p>
<p>First Term Exam</p> <p style="text-align: center;">30</p>	Date sheet will be provided in advance	<p style="text-align: center;">Practicals covered from 15.04.14 to 07.09.14</p> <p style="text-align: center;">Practical : 20 Marks + Viva Voce : 5 Marks + File: 5 Marks</p>

	23.09.14 to 19.11.14	<p>Preparation of Organic Compounds 9 (a) Di – benzal acetone 9 (b) Aniline Yellow or 2 – Naphthol aniline dye.</p> <p>Test for the functional groups present in the organic compounds 10. Tests for Unsaturation, alcoholic, phenolic, ketonic, carboxylic and amino (primary) groups 11. Study of Carbohydrates, Fats & Protein in pure form & detection of their presence in given food stuffs.</p> <p>Qualitative Analysis (contd.) 12. Determination of one cation and one anion in a give salt. Cations: Pb^{2+}, Cu^{2+}, As^{3+}, Al^{3+}, Mn^{2+}, Zn^{2+}, Co^{2+}, Ni^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+ Anions: CO_3^{2-}, S^{2-}, SO_3^{2-}, SO_4^{2-}, NO_2^-, NO_3^-, Cl^-, Br^-, I^-, PO_4^{3-}, $C_2O_4^{2-}$, CH_3COO^-</p>
	20.11.14 till Final Exam	<p>Revision of Practicals & Completion of Project Work Mock Practical & Submission of file + Project Report</p>
<p>Final Exam 30</p>	Date sheet will be provided in advance	<p>Practicals completed during the session Volumetric Analysis : 10 Marks + Salt Analysis : 8 Marks + Content Based Experiments : 6 Marks + Class Record & Viva : 6 Marks</p>
<p>* Project must be based on scientific investigation involving laboratory testing and collecting information from other sources.</p>		

Subject Code : 042 - Physics (Theory)		Syllabus : 2014-2015		Class : XII
Prescribed Books: Physics - Text book for class XII, Part I & II (NCERT)				
TEST/EXAM (M.M)	DURATION	PARTICULARS		TEST DATE
CT – 1 (25)	15.04.14 to 18.05.14	Unit I : Electrostatics Ch – 1 : Electric Charges and Fields Ch – 2 : Electrostatics Potential and Capacitance Unit – II : Current Electricity Ch – 3 : Current Electricity		19.05.14
CT – 2 (25)	19.05.14 to 11.08.14	Unit – III : Magnetic Effect of Current & Magnetism Ch – 4 : Moving Charges and Magnetism Ch – 5 : Magnetism and Matter Unit – IV : Electromagnetic Induction & Alternating Current Ch – 6 : Electromagnetic Induction Ch – 7 : Alternating Current Unit – V : Electromagnetic Waves Ch – 8 : Electromagnetic Waves		12.08.14
	12.08.14 to 07.09.14	Unit – VI : Optics Ch – 9 : Ray Optics and Optical Instruments Ch – 10 : Wave Optics Unit-VII : Dual Nature of Matter Ch – 11 : Dual Nature of Radiation and Matter		

First Term Exam 70	08.09.14 to 22.09.14	Syllabus Covered from 15.04.14 to 07.09.14 + Assignments Provided	
CT – 3 70	23.09.14 to 16.11.14	Unit–VIII : Atoms & Nuclei Ch – 12 : Atoms Ch – 13 : Nuclei Unit – IX : Electronic Devices Ch – 14 : Semi conductor & Electronics Devices Unit – X : Communication Systems Ch – 15 : Communication Systems Revision	17.11.14 Note: Complete syllabus would be covered in CT – 3
	17.11.14 till Final Exam	Revision and Discussion of Sample Paper Pre Board : Date : 09.01.2015 Syllabus: Complete Syllabus covered during the session + Assignments provided	
Final Exam 70	Date sheet will be provided by CBSE	Complete Syllabus covered during the session + Assignments Provided	
Reference books: (i) Pradeep's Fundamental Physics (ii) University Physics with Modern Physics by Hugh. D. Young			

Subject Code : 042 - Physics (Practical)		Syllabus : 2014-2015	Class : XII
Prescribed Books: Physics-Text book for class XII, Part I & II (NCERT)			
TEST/EXAM (M.M)	DURATION	PARTICULARS	
	15.04.14 to 18.05.14	Experiments: <ol style="list-style-type: none"> To find resistance of a given wire using metre bridge and hence determine the specific resistance of its material. To determine resistance per cm of a given wire by plotting a graph of potential difference versus current. To verify the laws of combination (series / parallel) of resistances using a metre bridge. To compare the emf of two given primary cells using potentiometer. To determine the internal resistance of given primary cell using potentiometer. 	
	19.05.14 to 11.08.14	Experiments: <ol style="list-style-type: none"> To determine resistance of a galvanometer by half – deflection method and to find its figure of merit. To Find the frequency of A.C. mains using sonometer Activities: <ol style="list-style-type: none"> To assemble the components of a given electrical circuit. To study the variation in potential drop with length of a wire for a steady current. To draw the diagram of a given open circuit comprising at least a battery, resistor / rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram. To identify a diode, an LED a transistor, and I.C., a resistor and a capacitor from mixed collection of such items. To observe refraction and lateral deviation of a beam light incident obliquely on a glass slab. To observe Polarization of light using two Polaroids. 	

	12.08.14 to 07.09.14	Experiments: 8. To find the value of v for different values of u in case of a concave mirror and to find the focal length. 9. To find the focal length of a convex lens by plotting graphs between u and v . 10. To find the focal length of a concave lens mirror, using a convex lens. 11. To determine refractive index of a glass slab using a travelling microscope.
First Term Exam 30	Date sheet will be provided in advance	Submission of Practical File, Activity File and Project Report on 03.09.14. Practicals completed from 15.04.14 – 07.09.14 will be evaluated
	23.09.14 to 16.11.14	Experiments: 12. To draw the $I - V$ characteristic curve of a $p - n$ junction in forward bias and reverse bias. 13. To draw the characteristic curve of a Zener diode and to determine its reverse breakdown voltage. 14. To study the characteristic of a common – emitter npn or pnp transistor and to find out the values of current and voltage gains. 15. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
	17.11.14 till Final Exam	Revision of Practicals completed during the session. Mock Practical & Submission of Practical File, Activity File and Project Report on 21.11.14 to 22.11.14.
Final Exam 30	Date sheet will be provided in advance	Practicals completed during the session Practical : 16 marks + Practical record : 6 marks + Project: 3 marks + viva : 5 marks
Note: Experiments and Activities will be recorded in separate files.		

Subject Code : 044 - Biology (Theory)		Syllabus : 2014-2015		Class : XII
Prescribed Books : Biology-A Textbook for class XII (NCERT)				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT-1 25	15.04.14 to 22.05.14	Unit VI - Reproduction Ch 1 : Reproduction in Organisms Ch 2 : Sexual Reproduction in Flowering Plants Ch 3 : Human Reproduction Ch 4 : Reproductive Health Unit VII - Genetics and Evolution Ch 5 : Principles of Inheritance and Variation.		23.05.14
CT-2 25	23.05.14 to 19.08.14	Unit VII – Genetics and Evolution (contd.) Ch 6 : Molecular Basis of Inheritance Ch 7 : Evolution Unit VIII – Biology in Human Welfare Ch 8 : Human Health and Diseases Ch 9 : Strategies for Enhancement in Food Production		20.08.14
	20.08.14 to 07.09.14	Unit VIII – Biology in Human Welfare (Contd.) Ch 10 : Microbes in Human Welfare Unit IX – Biotechnology Ch 11 : Biotechnology : Principles and Processes Ch 12 : Biotechnology & its Applications		

First Term Exam 70	08.09.14 to 22.09.14	Syllabus Covered from 15.04.14 to 07.09.14 + Assignments Provided	
CT-3 70	23.09.14 to 30.11.14	Unit X – Ecology Ch 13 : Organism and Populations Ch 14 : Ecosystem Ch 15 : Bio – diversity and Conservation Ch 16 : Environmental Issues Note : Complete syllabus would be covered in CT – 3	01.12.14
	01.12.14 Till final exam	Revision and Discussion of Sample Papers Pre Board : Date 13.01.2015 Syllabus: Complete syllabus covered during the session + Assignments provided	
Final Exam 70	Date sheet will be provided by CBSE	Complete Syllabus covered during the session + Assignments Provided	
Reference Books: (I) A textbook of Biology by Pradeep Publication (ii) Trumen's elementary Biology by K. N. Bhatia & M.P. Tyagi			

Subject Code : 044-Biology (Practical)		Syllabus : 2014-2015	Class : XII
TEST/EXAM (M.M.)	DURATION	PARTICULARS	
	15.04.14 to 22.05.14	<ol style="list-style-type: none"> 1. Study Pollen germination on a slide. 2. Prepare a temporary mount of onion root tip to study mitosis. 3. Study of flowers adapted to pollination by different agencies (wind, Insect, bird) 4. Study of pollen germination on stigma through a permanent slide & study pollen germination on slide. 5. Study & identify stages of gamete development i.e. T.S. Testis and T.S. Ovary through permanent slide. 6. Study of T.S. of blastula through permanent slide. <p style="text-align: center;">Allocation of Project</p>	
	23.05.14 to 19.08.14	<ol style="list-style-type: none"> 7. Study Mendelian inheritance using seeds of different colour / sizes of any plant. 8. Study prepared pedigree charts of genetic traits such as rolling of tongue, blood groups, earlobes, widow's peak and colour blindness. 9. Isolation of DNA from available plant material such as spinach, green pea seeds, papaya etc. 10. Study the effect of temperature and three different PH on the activity of Salivary amylase on starch. 	
	20.08.14 to 07.09.14	<ol style="list-style-type: none"> 11. To identify common disease causing organisms like Ascaris, Entamoeba, Plasmodium, Ringworm through permanent slide or specimen. <p style="text-align: center;">Submission of Practical File – 05.09.14</p>	
First Term Exam 30	Date sheet will be provided in advance	Practicals completed from 15.04.14 to 07.09.14	

	23.09.14 to 30.11.14	<p>12. Exercise on controlled pollination – Emasculation, fogging and bagging.</p> <p>13. Study two plant and two animals found in xeric conditions.</p> <p>14. Study plants and animal found in aquatic conditions.</p> <p>15. Study meiosis through Permanent slides.</p> <p>16. Collect water from two different water bodies around you and study of samples for pH, clarity and Presence of any living organism.</p> <p>17. Study the presence of suspended particulate matter in air at the two widely different sites.</p> <p>18. Collect and study soil from at least two different sites and study these for texture, moisture content, pH and water holding capacity of soil.</p> <p>19. Study of plant population density by quadrant method.</p> <p>20. Study of plant population frequency by quadrate method.</p>
	01.12.2014 till final exam	<p>Revision of Practical completed during the session.</p> <p>Mock Practical & Submission of Practical file+ Project Report : 02.02.2014</p>
<p>Final Exam</p> <p>30</p>	Date sheet will be provided in advance	<p>Practicals completed during the session</p> <p>Practical (21) Project (5) Practical File (4)</p>
<p>Reference Book : Comprehensive Laboratory Manual in Biol</p>		

Subject : 083 - Computer Science (Theory)		Syllabus : 2014-2015		Class : XII
Prescribed Books: Computer Sc. (with Python) – A text Book by CBSE				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT-1 25	15.04.14 to 22.05.14	Unit I : Object Oriented Programming with Python <i>Complete</i> Unit II : Concept of Data Structure & File Handling <i>Data File Handling & Exception Handling</i>		23.05.14
CT-2 25	23.05.14 to 19.08.14	Unit II : Concept of Data Structure & File Handling <i>Stacks & Queues & Generator functions</i> Unit V : Communication Technologies <i>Complete</i>		20.08.14
	20.08.14 to 07.09.14	Revision		
First Term Exam 70	08.09.14 to 22.09.14	Syllabus Covered from 15.04.14 to 07.09.14 + Assignments Provided		

CT-3 70	23.09.14 to 30.11.14	Unit III: Data Base management System & SQL <i>Complete</i> Unit IV : Boolean Algebra <i>Complete</i>	01.12.14
	01.12.14 Till Final Exam	Revision and Discussion of Sample Papers Pre Board : Date 13.01.2015 Syllabus: Complete syllabus covered during the session + Assignments provided	
Final Exam 70	Date sheet will be provided by CBSE	Complete Syllabus covered during the session + Assignments Provided	
Reference Books: (I) Computer Networks (PHI) (ii) Digital Computers by Moris Mano (iii) Programming in Python by Mark Lutz			

Subject : 083 - Computer Science (Practical)		Syllabus : 2014-2015	Class : XII
Prescribed Books: Computer Sc. (with Python) – A text Book by CBSE			
TEST/EXAM (M.M.)	DURATION	PARTICULARS	TEST DATE
	15.04.14 to 22.05.14	Python programs dealing with - Classes - Inheritance - Data File handling (Text & Binary) - Exception Handling	
	23.05.14 to 19.08.14	Python program dealing with - Arrays - Stacks - Queue - Generator functions Submission of Project Algorithm / Flowchart	
	20.08.14 to 07.09.14	Project Work + Revision for Practical exam Submission of Practical File – 05.09.14	
First Term Exam 30	Date sheet will be provided in advance	Practicals completed from 15.04.14 to 07.09.14	

	23.09.14 to 30.11.14	Completion of Project Work & SQL Commands
	01.12.2014 till final exam	Revision of Practical completed during the session. Mock Practical + Project Report : 02.02.2014
Final Exam 30	Date sheet will be provided in advance	Practicals completed during the session

Subject Code : 030 - Economics		Syllabus: 2014-2015		Class : XII
Prescribed Books: Book 1 : Introduction of Microeconomics (NCERT) Book 2 : Introduction of Macroeconomics (NCERT)				
TEST/EXAM (M.M.)	DURATION	PARTICULARS		TEST DATE
CT-1 25	15.04.14 to 22.05.14	Book 1 Unit 1 : Introduction Unit 2 : Consumer Behaviour and Demand Unit 3 : Producer Behaviour and Supply		23.05.14
CT-2 25	23.05.14 to 19.08.14	Book 1 Unit 4 : Forms of Market & Price Determination Book 2 Unit 1 : Introduction of Macro Economics Unit 2 : National Income and related Aggregates – Concepts and Measurement		20.08.14
	20.08.14 to 07.09.14	Book 2 Unit 3 : Determination of Income and Employment		
First Term Exam 100	08.09.14 to 22.09.14	Syllabus Covered from 15.04.14 to 07.09.14 + Assignments Provided		

<p align="center">CT-3 100</p>	<p align="center">23.09.14 to 30.11.14</p>	<p>Book 2 Unit 3 : Determination of Income and Employment (Contd.....) Unit 4 : Money & Banking Unit 5 : Government Budget and the Economy Unit 6 : Balance of Payments : Meaning and Components</p>	<p align="center">01.12.14 Note: Complete Syllabus would be covered in CT-3</p>
	<p align="center">01.12.14 till Final Exam</p>	<p align="center">Revision and Discussion of Sample Paper Pre Board : Date : 13.01.2015 Syllabus: Complete Syllabus covering during the session + Assignments provided</p>	
<p align="center">Final Exam 100</p>	<p align="center">Date Sheet will be provided by CBSE</p>	<p align="center">Complete Syllabus covered during the session + Assignments Provided</p>	
<p>Reference Books : 1. Introductory Micro Economics, by Sandeep Garg 2. Introductory Macro Economics, by Sandeep Garg</p>			

Subject Code : 502 - Physical & Health Education		Syllabus: 2014-2015	Class : XII
MONTHS	GAMES	PARTICULARS	
April - May	<ul style="list-style-type: none"> • Basket Ball • Badminton • Hand Ball • Volley Ball • Kho-kho • Table- Tennis • Athletics 	<ul style="list-style-type: none"> • History of the Game / Sports • Latest general rules of the Game / Sports • Specification of play fields and sports equipments • Fundamental Skill of the Game / sports 	
July - August		<ul style="list-style-type: none"> • Sports Terminologies, • Sports Tactics, • Sports Advance Knowledge • Developing Motor Components for Particular Game 	
September	First Term Assessment.		
Oct. - November	<ul style="list-style-type: none"> • Basket Ball • Badminton • Hand Ball • Volley Ball • Kho-kho • Table- Tennis • Athletics 	<ul style="list-style-type: none"> • Important Tournaments and Venues • Famous Sports Personalities • Sports Awards • Common Sports Injuries • Prevention • Treatment • Intra School Competition 	
Note : Grades will be sent to CBSE on the basis of continuous and comprehensive evaluation.			

Subject Code : 503 - General Studies		Syllabus : 2014-2015		Class : XII
MONTHS	PARTICULARS			
April-May	<p>Topic : Contemporary Problems & Indian Society</p> <ul style="list-style-type: none"> • Removal of Poverty • Eradication of Superstitions • Social Inequalities • Removal of Literacy • Population Education • Planning process in India 			
July - August	<p>Topic : Contemporary Problems & Indian Society</p> <ul style="list-style-type: none"> • Meaning of Culture • Evolution of Indian Culture • Features of "Indianness" 			
Sept - November	<p>Topic : Contemporary Problems & Indian Society</p> <ul style="list-style-type: none"> • Historical Perspective • Declaration of Human Rights • Human Rights as a means of Harmonious World Order 			
<p>Note : The topics are integrated with Intra School Activities. Grades will be sent to CBSE on the basis of continuous and comprehensive evaluation.</p>				

List of Holidays for Students : 2014-2015		Class : XII
MONTH	DATE & DAY	DETAILS
April'14	8th, Tuesday 18th, Friday	Ram Navami Good Friday
May'14	14th, Wednesday	Buddha Purnima
July'14	29th, Tuesday	Idu'l Fitr
August '14	15th, Friday 18th, Monday	Independence Day Janamashtami
October'14	2nd, Thursday 3rd, Friday 6th, Monday 8th, Wednesday 22nd -25th, Wednesday to Saturday	Mahatma Gandhi's Birthday Dussehra Id-ul-Zuha(Bakrid) Maharishi Valmiki's Birthday Diwali Break
November'14	4th ,Tuesday 6th ,Thursday	Muharram Guru Nanak's Birthday
December '14	25th, Thursday	Christmas Day
January'15	26th, Monday	Republic Day

Year Planner : 2014-2015		Class : XII
MONTH	DATE & DAY	DETAILS
May' 14	08.05.14 (Thursday)	Student's Workshop : Value Based and Life Skill by XII C
	15.05.14 (Thursday)	Student's Workshop : Value Based and Life Skill by XII A
June' 14	20.06.14 (Friday) onwards	June Test
August' 14	01.08.14 (Friday)	Student's Workshop : Value Based and Life Skill by XII D
	02.08.14 (Saturday)	Parent Teacher Meeting + Book Fair + Fine Art Exhibition
	07.08.14 (Thursday)	Student's Workshop : Value Based and Life Skill by XII B
September' 14	08.09.14 (Monday) onwards	First Term Examination (SA – I)
October' 14	18.10.14 (Saturday)	Parent Teacher Meeting + Book Fair + Science Exhibition
November' 14	08.11.14 (Saturday)	Senior Annual Day & Prize Distribution Ceremony
December' 14	05.12.14 (Friday)	Senior Sports Day
	13.12.14 (Saturday)	'INSYNC' (Fete)
	22.12.14 (Monday)	Pre Board Examination
January' 15	10.01.15 (Saturday)	Parent Teacher Meeting + Book Fair
<p>Note: 1. Dates Proposed are tentative and subject to change. 2. Dates and details of workshops & Educational Visit will be intimated as per the availability of Venue & Resource Person.</p>		