

SYLLABUS

2019 - 2020

CLASS : XII
(Science)



RUKMINI DEVI
PUBLIC SCHOOL

The school with a difference...

Under the aegis of Seth Pokhar Mal Educational Society

- * Recognized by Directorate of Education, Govt. of NCT, Delhi
- * Permanently Affiliated & Accredited to CBSE, MHRD, Govt. of India
- * Affiliation No. 2730165



Pitampura, Delhi - 110034

Tel : 27314235, 27313693, 64666462

Website : www.rdpschool.edu.in



www.facebook.com/RukminiDeviPublicSchool



www.twitter.com/rdpspp



www.linkedin.com/in/rukmini-devi-public-school-8537a9141/

Our Vision : Excellence in Education

Our Mission : To strive for the strong foundation of young learners in the age group of 3+ to 17 years which will 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."

Mission Statement (2017 - 2022)

"The school will develop a well-knit system to contribute towards Digital India Programme by digitalizing 40% of its processes by 2018 and 60% by 2022 consequently reducing the paper usage and promoting environmental sustainability. The school will contribute toward the clean India mission by organizing frequent cleanliness drives, spreading awareness about hygiene through street plays and other mass awareness programmes."

INDEX**Class: XII**

	Page No.
1. Introduction, Evaluation	1-3
2. English (301)	4-5
3. Mathematics (041)	6-7
4. Economics (030)	8-9
5. Physics (042)	10-12
6. Chemistry (043)	13-15
7. Biology (044)	16-18
8. Physical Education (048)	19-20
9. Computer Science (083)	21-22
10. General Studies	23
11. Health and Physical Education (HPE)	24
12. Year Planner.....	25
13. List of Holidays	26

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 will be a system of assessments for each subject as per the prescribed syllabus and examination schedule.

Tentative Schedule of Exam:

PT 1*	PT 2*	PT 3*	Pre Board 1	Pre Board 2
20.06.2019 to 28.06.2019	07.09.2019 to 16.09.2019	11.11.2019 to 20.11.2019	06.12.2019 to 19.12.2019	03.01.2020 to 16.01.2020

Date sheet will be provided a month in advance.*** M.M. : As per curriculum****Duration : 3 hrs.**

- The Question Papers will follow the blue print provided by CBSE.
- Each student should have 75% of attendance in each term to be eligible to appear in CTs and Final Exams.
- Subject wise qualifying criteria is as per CBSE norms.
- It is compulsory for each student to appear in all the tests.
- If a student fail to appear for a test / exam (whatever grounds), he / she would have to pay Rs. 1000/- per test and compulsorily appear in the test/exam in which he/she had remained absent. The amount would be deposited to the respective class teacher before the retest.
- The answer sheets 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 sheet and leaves the classroom.

2. The following compulsory internal assessment subjects will be awarded grades as per the CBSE guidelines:

- a. General Studies
- b. Health and Physical Education

Health and Physical Education (HPE) : It is a distinct curricular area integral to health and physical education. In HPE students develop the knowledge, understanding and skills to strengthen resilience personality. Students are provided with an opportunity to get professionally trained in the area of interest focusing on Physical Fitness, Sportsmanship, Self Sacrifice and Health Care.

The content of HPE will comprise 4 strands :

1. Games : The importance of sports /games in school encompasses more than just the benefit of physical activity, which increases self-esteem and mental alertness.
2. Health and Fitness : A programme for sensitization of the students towards their responsibility to reduce symptoms of anxiety and depression and improve physical fitness.
3. SEWA : A programme to prepare the students for social and community service that includes environmental, civic responsibilities, democracy etc.
4. Health and Activity Card : An information about physical development of a child.

Health and Physical activity is given regular class five times a week. It will be assessed on 9 point grade scale under the guidance of facilitating teacher on the basis of Table 1.1.

**Distribution of Periods/ Grades For Internal Assessment In Health and Physical Education
(with Work Experience subsumed in it)**

TABLE 1.1

DISTRIBUTION OF MARKS FOR INTERNAL ASSESSMENT

Strand	Periods (Approx.)	Grades*
1. GAMES A) Athletics/ Swimming B) Team Games C) Individual Games/ Activity D) Adventure Sports	90 periods	While filling online data, following grades may be filled against HPE: Class XI-XII: Grade (A-E) on 9-point scale (A1,A2,B1,B2,C1,C2,D1,D2,E)
2. Health and Fitness	50 periods	
3. SEWA	50 periods	While filling online data, following grades may be filled against Work Education / Work Experience. Class XI-XII: Grade (A-E) on 9-point scale (A1,A2,B1,B2,C1,C2,D1,D2,E)
4. Health and Activity Card	10 periods	-
Total	200 Periods (Approx)	-

Note : The levels and grade obtained under the first three Strands will be reflected in the report cards.

Subject Code : 301 - English Core		Syllabus: 2019-2020		Class : XII	
Prescribed Books:					
1. Flamingo-Text book, Class XII (Core Course) NCERT					
2. Vistas- Supplementary Reader in English, Class XII (Core Course) NCERT					
TEST/EXAM	DURATION	PARTICULARS		Use of ICT	Use of Labs
PT-1 (June Test) (80)	14.03.19 to 24.05.19	Book 1 : L1 - The Last Lesson (ISA Activity - PPT on Linguistic chauvinism and its effects) L2 - Lost Spring – Stories of Stolen Childhood L3 - Deep Water Poem1 - My Mother at Sixty Six Poem2 - An Elementary School Classroom in a Slum		<ul style="list-style-type: none"> • PPT on Linguistic chauvinism and its effects. • Formats and samples for writing skills. • Revision Tests 	—
		Book 2 : L1 - The Third Level L2 - The Tiger King : L5 - Should Wizard Hit Mommy ?			
		Writing Skills : Notice Writing, Letter to Editor, Article Writing, Speech Writing			
		Reading Skills : Reading Comprehension, Note Making & Summary			
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19			
PT-2 (80)	01.07.19 to 06.09.19	Book 1 : L4- The Rattrap L5- Indigo L6 - Poets and Pancakes Poem3- Keeping Quiet Poem4- A Thing of Beauty		<ul style="list-style-type: none"> • Formats and samples for writing skills. • Revision Tests 	—
		Book 2 : L3- Journey to the end of the Earth L4- The Enemy			
		Writing Skills : Advertisements, Job Application			
		Reading Skills : Reading Comprehension, Note Making & Summary			

Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		
PT-3 80	17.09.19 to 10.11.19	Book 1 : L7- The Interview L8- Going Places Poem 5- A Roadside Stand Poem 6- Aunt Jennifer's Tigers Book 2 : L6- On the Face of It L7- Evans Tries an O – Level L8- Memories of Childhood Writing Skills : Poster, Invitations Business and Official letters Reading Skills : Reading Comprehension, Note Making & Summary Note : Complete Syllabus would be covered in CT – 3	<ul style="list-style-type: none"> • Formats and samples for writing skills. • Revision Tests 	
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	Writing Skills : Debate, Report Writing Revision and Discussion of Sample Papers	<ul style="list-style-type: none"> • Revision Tests 	
Pre-Board 1 Exams 80	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Papers		
Pre-Board 2 Exams Theory 80 + 20 ASL	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
Reference books: Together with English Core (Class 12)				


Subject Code : 041 - Mathematics		Syllabus: 2019-2020		Class : XII	
Prescribed Books: <ol style="list-style-type: none"> 1. Mathematics : Textbook for Class XII (NCERT) (Part I & II) 2. Exemplar Textbook for Class XII (NCERT) 3. NCERT Lab Manual for Class XII 					
TEST/EXAM	DURATION	PARTICULARS		Use of ICT	Use of Labs
PT-1 (June Test) 80	14.03.19 to 24.05.19	Ch 1 : Relations and Functions Ch 2 : Inverse Trigonometric Functions Ch 3 : Matrices Ch 4 : Determinants Ch 5 : Continuity and Differentiability	<ul style="list-style-type: none"> • Presentation by extramarks.com • Revision Tests • PPT 	Activity 1 : To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive. Activity 2 : To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is an equivalence relation. Activity 3: To demonstrate a function which is not one-one but is onto. Activity 4 : To demonstrate a function which is one-one but not onto.	
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19			
PT-2 80	01.07.19 to 06.09.19	Ch 6 : Application of Derivatives Ch 7 : Integrals Ch 8 : Application of Integrals Ch 9 : Differential Equations	<ul style="list-style-type: none"> • Presentation by extramarks.com • Revision Tests • PPT 	Activity 9 : To find analytically the limit of a function $f(x)$ at $x = c$ and also to check the continuity of the function at that point. Activity 11 : To verify Rolle's Theorem. (Geometrically) Activity 17: To find the time when the area of a rectangle of given dimensions become maximum, if the length is decreasing and the breadth is increasing at given rates. Activity 19 : To evaluate the definite integral as the limit of a sum and verify it by actual integration.	

Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		
PT-3 (80)	17.09.19 to 10.11.19	Ch 10 : Vectors Ch 11 : Three Dimensional Geometry Ch 13 : Probability + Revision	<ul style="list-style-type: none"> • Presentation by extramarks.com • Revision Tests • PPT 	Activity 21 : To verify that angle in a semi-circle is a right angle, using vector method. Activity 23 : To demonstrate the equation of a plane in normal form.
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	Ch 12 : Linear Programming + Revision Revision and Discussion of Sample Papers	<ul style="list-style-type: none"> • Presentation by extramarks.com • Revision Tests • PPT 	—
Pre-Board 1 Exams (80)	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Papers		
Pre-Board 2 Exams Theory Internal Assessment (80) + (20)	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
Reference books:	1. Mathematics for Class XII: ML Aggarwal 2. Mathematics for Class XII: Lalit Sharma and Jyoti Bhola 3. Mathematics Lab Activity Book for Class XII by Lalit Sharma			

Subject Code : 030 - Economics		Syllabus: 2019-2020		Class : XII	
Prescribed Books: 1. Introductory Micro Economics – N.C.E.R.T. (Book I) 2. Introductory Macro Economics – N.C.E.R.T. (Book II)					
TEST/EXAM	DURATION	PARTICULARS		Use of ICT	Use of Labs
PT-1 (June Test) (80)	14.03.19 to 24.05.19	Book 1 Unit 1: National Income and Related Aggregates Unit 2: Money and Banking Unit 3: Determination of Income and employment Unit 4: Government Budget and the economy		<ul style="list-style-type: none"> • Use of extramark software • PPT on banking Sector •PPT on National Income 	Use of clicker lab
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19			
PT-2 (80)	01.07.19 to 06.09.19	BOOK : I Unit 4: Government budget and the economy (cont..) Unit 5: Balance of Payments BOOK : II Ch 1- Indian economy on the eve of Independence Ch 2- Indian economy(1950-1990) Ch 3- Liberalization, Privatization and globalization; concepts of demonetization and GST. Ch 4- Poverty Ch 5- Human Capital Formation Allocation of the Project.		<ul style="list-style-type: none"> • Use of extramark software •PPT on " Interim budget 2019-2020" 	Use of clicker lab

Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		
PT-3 (80)	17.09.19 to 10.11.19	BOOK : II Ch 5- Human Capital formation contd... Ch 6- Rural development Ch 7- Employment: growth, informalisation and other issues Ch 8- Inflation Ch 9- Infrastructure	•Use of extramark software •PPT on current inflation and impact on GDP 2019-2020"	Use of clicker lab
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	BOOK : II Ch 10- Environment and sustainable development Ch 11- Comparative development experiences of India and its Neighbours	•Use of extramark software •PPT on trade relations between India and China	Use of clicker lab
Pre-Board 1 Exams (80)	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Papers		
Pre-Board 2 Exams Theory Practical (80) + (20)	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
Reference books: 1. Introductory Macro Economics: Sandeep Garg 2. Indian Economic Development: Sandeep Garg				

Subject Code : 042 - Physics		Syllabus: 2019-2020		Class : XII	
Prescribed Books : Physics – A Textbook for Class XII (NCERT)					
TEST/EXAM	DURATION	PARTICULARS	Use of ICT	Use of Labs	
PT-1 (June Test) 70	14.03.19 to 24.05.19	Unit-I: Electrostatics Ch.1: Electric charges and fields Ch.2: Electrostatics potential and capacitance Unit-II: Current electricity Ch.3: Current electricity Unit-III: Magnetism Ch.4: Moving charges and Magnetism	<ul style="list-style-type: none"> Revision Tests 3-D Lab <ul style="list-style-type: none"> Unit I : Electric Field Unit III : Magnetic Field 	Physics Lab <ol style="list-style-type: none"> To determine resistance per cm of a given wire by plotting a graph of potential difference vs current. To find resistance of a given wire using metre bridge and hence determine specific resistance the material. To verify the laws of combination using Metre bridge. Comparison of emf:- Potentiometer. Internal resistance: Potentiometer Allocation of the Project.	
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19			
PT-2 Theory Practical 70 + 30	01.07.19 to 06.09.19	Unit-III: Magnetism Ch.5: Magnetism and Matter Unit-IV: EMI AND AC Ch.6: Electromagnetic Induction Ch.7: Alternating current Unit-V: EM Waves Ch.8: Electromagnetic Waves Unit-VI: Optics Ch.9: Ray optics & optical instruments Ch.10: Wave optics.	<ul style="list-style-type: none"> Revision Tests 3-D Lab <ul style="list-style-type: none"> Unit V : Electromagnetic Waves Unit VI : Optical instruments 	Physics Lab <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 AC mains using sonometer. To find the value of V for different values of u in case of a concave mirror. To find the focal length of a convex lens by plotting graphs between u & v To find the focal length of a concave lens using convex lens. 	

				Activities (Demonstration) : 1. To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter. 2. To assemble the components of a given electrical circuit. 3. To study the variation in potential drop with length of a wire for a steady current.
Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		
PT-3 	17.09.19 to 10.11.19	Unit-VII: Dual nature of matter Ch.11: Dual nature of Radiation and matter Unit-VIII: Atom & Nuclei Ch.12: Atoms Ch.13: Nuclei Unit-IX: Electronic Devices Ch.14: Semi conductor & electronic devices Ch.15: Communication systems	<ul style="list-style-type: none"> • Revision Tests • Model answers will be shown to the students through scanned copy of answer key. 	11. To determining refractive index of a glass slab. 12. To determine angle of min deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. 13. To draw the I-V characteristics curve of a p-n junction in a forward bias and reverse bias. 14. To draw the characteristic curve of a zener diode and to determine its reverse break down voltage. 15. To find the refractive index of a liquid using plane mirror and convex lens. Activities (Demonstration) : 1. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab. 2. To observe polarization of light using two Polaroids.

				3. To identify a diode, an LED, a transistor, an IC, a resistor and a capacitor from a mixed collection of such items. Submission of the Project.
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	Revision and Discussion of Sample Paper		
Pre-Board 1 Exams 70	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Paper		
Pre-Board 2 Exams Theory Practical 70 + 30	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
Reference Books: 1. Together with Physics. 2. S.L. Arora (Dhanpat Rai Publications) 3. Together With, Comprehensive Note : Project guidelines as per CBSE.				

Subject Code : 043 - Chemistry		Syllabus: 2019-2020		Class : XII	
Prescribed Books : Chemistry – A Textbook for Class XII (NCERT)					
TEST/EXAM	DURATION	PARTICULARS		Use of ICT	Use of Labs
PT-1 (June Test) (70)	14.03.19 to 24.05.19	Organic Chemistry Unit 10 : Haloalkanes and Haloarene Unit 11 : Alcohols, Phenols and Ethers Unit 12 : Aldehydes, Ketones and Carboxylic Acids Unit 13 : Organic Compounds containing Nitrogen Unit 14 : Biomolecules		<ul style="list-style-type: none"> Revision Tests 3-D Lab <ul style="list-style-type: none"> Structure of Monosaccharides (Ch. 14) 	Chemistry Lab <ol style="list-style-type: none"> Quantitative Analysis : Determination of Molarity and Strength of KMnO_4 using Mohr Salt Qualitative Analysis : Determination of one cation and anion in a given salt. Test for the functional groups present in organic compounds. Allocation of the Project.
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19			
PT-2 Theory Practical (70) + (30)	01.07.19 to 06.09.19	Unit 15 : Polymers Unit 16 : Chemistry in Everyday Life Unit 02 : Solutions Unit 03 : Electrochemistry Unit 04 : Chemical Kinetics Unit 05 : Surface Chemistry		<ul style="list-style-type: none"> Revision Tests 3-D Lab <ul style="list-style-type: none"> Daniel Cell, Standard Hydrogen Electrode, Electrode Potential and Standard Electrode Potential (Ch-3) 	<ol style="list-style-type: none"> To find the R_f of colour component using paper chromatography Electrochemistry Chemical Kinetics Preparation of one lyophobic and lyophilic Sol Quantitative Analysis : Determination of Molarity and Strength of KMnO_4 using Oxalic acid.

Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		
PT-3 70	17.09.19 to 10.11.19	<p>Unit 06 : General Principles and Processes of Isolation of Elements</p> <p>Unit 07 : p – block Elements</p> <p>Unit 08 : d – and f – block Elements</p> <p>Unit 09 : Coordination Chemistry</p>	<ul style="list-style-type: none"> • Revision Tests • Model answers will be shown to the students through scanned copy of answer key. 	<p>10. To test the presence of carbohydrates, proteins and fats in the food sample.</p> <p>11. Preparation of crystals of Mohr's salt / potash alum</p> <p>Submission of the Project.</p>
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		

Pre Board 1	21.11.19 to 05.12.19	Revision and Discussion of Sample Paper		
Pre-Board 1 Exams (70)	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Paper		
Pre-Board 2 Exams Theory Practical (70) + (30)	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		

Reference Books: 1. A textbook of Chemistry by Pradeep Publication.
2. Modern ABC
3. G.R. Bathla Publication
4. APC, Comprehensive Lab Manual

Note : Project guidelines as per CBSE.

Subject Code : 044 - Biology		Syllabus: 2019-2020		Class : XII	
Prescribed Books : Biology – A Textbook for Class XII (NCERT)			Exemplar Book - Biology (NCERT)		
TEST/EXAM	DURATION	PARTICULARS	Use of ICT	Use of Labs	
PT-1 (June Test) 70	14.03.19 to 24.05.19	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.	<ul style="list-style-type: none"> • Revision Tests 3-D Lab <ul style="list-style-type: none"> • Chapter 2 • Chapter 3 • Chapter 4 	Biology Lab <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. 5. Study & identify stages of gamete development i.e., T.S. Tests, and T.S. Ovary through permanent slide. 6. Study of T.S. of blastula through permanent slide. 7. Study Mendelian inheritance using seeds of different colour / sizes of any plant. Allocation of the Project.	
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19			
PT-2 Theory Practical 70 + 30	01.07.19 to 06.09.19	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 Ch 10 : Microbes in Human Welfare	<ul style="list-style-type: none"> • Revision Tests 3-D Lab <ul style="list-style-type: none"> • Chapter 6 • Chapter 7 	<ol style="list-style-type: none"> 8. Study prepared pedigree charts of genetic traits. 9. Isolation of DNA from available plant material such as spinach, pea seeds etc. 10. Study the effect of temperature and three different pH on the activity of salivary amylase on starch. 11. To identify common disease causing organisms through permanent slides. 12. Exercise on controlled pollination – Emasculation, bagging and fogging. 13. Study meiosis through permanent slides. 	

Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		
PT-3 70	17.09.19 to 10.11.19	Unit IX – Biotechnology Ch 11 : Biotechnology : Principles and Processes Ch 12 : Biotechnology & its Applications Unit X – Ecology and Environment Ch 13 : Organism and Population Ch 14 : Ecosystem Ch 15 : Biodiversity and its Conservation Ch 16 : Environmental Issues	<ul style="list-style-type: none"> • Revision Tests 3-D Lab <ul style="list-style-type: none"> • Chapter 11 • Chapter 16 	14. Study two plant and two animals found in xeric conditions. 15. Study plants and animals found in aquatic conditions. 16. Study the presence of suspended particulate matter in air at the two widely different sites. 17. Collect water from two different water bodies around you and study of samples for pH, clarity and presence of any living organisms. 18. Collect and study soil from at least two different sites for texture, moisture, pH and water holding capacity. 19. Study of plant population density of quadrant method. 20. Study of plant population frequency by quadrant method. Submission of the Project.
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	Revision and Discussion of Sample Paper	<ul style="list-style-type: none"> • Revision Tests 	

Pre-Board 1 Exams (70)	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Paper		
Pre-Board 2 Exams Theory Practical (70) + (30)	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
<p>Reference Books: 1. A textbook of Biology by Pradeep Publication. 2. Trumen's Elementary Biology. 3. G.R. Bathla Publication. 4. APC, Comprehensive Lab Manual.</p> <p>Note : Project guidelines as per CBSE.</p>				

Subject Code : 048 - Physical Education		Syllabus: 2019-2020		Class : XII
Prescribed Books: Saraswati Health & Physical Education				
TEST/EXAM	DURATION	PARTICULARS	Use of ICT	Use of Labs
PT-1 (June Test) 70	14.03.19 to 24.05.19	Unit 1 : Planning in Sports Unit 2 : Sports & Nutrition Unit 3 : Yoga and Lifestyle Unit 4 : Physical Education & Sports for Differently Aabled.	—	<ul style="list-style-type: none"> Physical Fitness AAPER Skill of any individual game of choice from –Athletics, Football, Basket Ball, Handball, Kho-Kho, Volleyball and Unified Basketball.
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19		
PT-2 Theory Practical 70 + 30	01.07.19 to 06.09.19	Unit 5 : Children & Women in Sports Unit 6 : Test & Measurement in Sports Unit 7 : Physiology & Injuries in Sports Unit 8 : Biomechanics & Sports	—	<ul style="list-style-type: none"> Practical - 1: Modified AAPER administration for all items. Practical - 2: Conduct Barrow 3 Item Test on 10 students.
Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		

PT-3 70	17.09.19 to 10.11.19	Unit 9 : Psychology & Sports Unit 10 : Training in Sports	—	<ul style="list-style-type: none"> • Practical - 3: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease. • Practical - 4: Procedure for administering Senior Citizen Fitness Test for 5 elderly family members. • Practical - 5: Any one game of your choice out of the list above. Labelled diagram of field & equipment (Rules, Terminologies & Skills). • Viva and Record File
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	Revision and Discussion of Sample Paper	—	
Pre-Board 1 Exams 70	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Paper		
Pre-Board 2 Exams Theory Practical 70 + 30	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
Reference books: Physical Education by Ratnasagar Publication.				

Subject Code : 083 - Computer Science		Syllabus: 2019-2020		Class : XII
Prescribed Books:				
TEST/EXAM	DURATION	PARTICULARS	Use of ICT	Use of Labs
PT-1 (June Test) 70	14.03.19 to 24.05.19	Unit 1: Programming and Computational Thinking Functions, File Handling, Python Libraries, Recursion, Idea Efficiency and Data Visualization	Presentation on the unit and Demo	Python program dealing with : Functions, File Handling, Python Libraries, Recursion, Idea Efficiency and Data Visualization
Test Dates	20.06.19 to 28.06.19	Syllabus Covered from 14.03.19 to 24.05.19		
PT-2 Theory Practical 70 + 30	01.07.19 to 06.09.19	Unit I: Data Structures Unit II: Computer Networks Unit III: Data Management SQL Commands, Interface Python with SQL	Presentation on the unit and Demo	Python program dealing with : Classes, inheritance and List, Stack, Queue and SQL interface. Practice on SQL Commands
Exam Dates	07.09.19 to 16.09.19	Syllabus Covered from 14.03.19 to 06.09.19		

PT-3 70	17.09.19 to 10.11.19	Unit III: Data Management Django based Web Application Unit IV: Society, Law and Ethics Intellectual Property Rights, Privacy Laws, Technology and Society	Presentation on the unit and Demo	Python program dealing with : Django
Exam Dates	11.11.19 to 20.11.19	Syllabus Covered from 14.03.19 to 10.11.19		
Pre Board 1	21.11.19 to 05.12.19	Unit IV: Society, Law and Ethics E-waste Management, Identity Theft, Gender and Disability Issue	Presentation on the unit and Demo	Submission of Practical File and Project Work
Pre-Board 1 Exams 70	06.12.19 to 19.12.19	Syllabus Covered from 14.03.19 to 05.12.19		
Pre Board 2	20.12.19 to 31.12.19	Revision and Discussion of Sample Paper		Submission of Project Work
Pre-Board 2 Exams Theory Practical 70 + 30	03.01.20 to 16.01.20	Syllabus Covered from 14.03.19 to 05.12.19		
Reference books: 1. Introduction to Computation and Programming Using 2. Python - by John Guttag 3. Learn to Code with Python by Ana Bell 4. Computer Networks by Tanenbaum 5. Beginning Django : Web Application Development and Deployment with Python. 6. Cybersecurity Ethics : An Introduction by Mary Manjikian.				

Subject Code : General Studies		Syllabus : 2019-2020	Class : XII
MONTH	PARTICULARS		
March' 19 to August' 19	<ul style="list-style-type: none"> • Value Education workshops - as per the schedule . • Monthly Presentations : on Following given topic : <ol style="list-style-type: none"> a. Science and Society (July) b. Contemporary Problems of Indian Society. (July) 		
September' 19	Mid Assessment		
October'19 to December' 19	<ul style="list-style-type: none"> • Monthly Presentations : on following given topic : <ol style="list-style-type: none"> a. Cultural Heritage of India (October) b. India's Freedom Struggle (October) c. Constitutional Values (November) d. Human Rights (November) 		
January' 20	Final Assessment		
<p>Note: Grading will be done as per CBSE guidelines and all above topics will be covered through workshops.</p>			

Subject : Health and Physical Education (HPE)		Syllabus: 2019-2020	Class : XII
MONTH	PARTICULARS		
March' 19 to August' 19	<ul style="list-style-type: none"> • Games: Basket Ball, Badminton, Hand Ball, Volley Ball, Kho-kho, Table- Tennis, Athletics • History of the Game / Sports • Latest general rules of the Game / Sports • Specification of play fields and sports equipments 		
September' 19	Mid Assessment.		
October'19 to December' 19	<ul style="list-style-type: none"> • Sports Terminologies, • Sports Tactics, • Developing Motor Components for Particular Game. • Important Tournaments and Venues • Famous Sports Personalities • Sports Awardees • Common Sports Injuries and their preventions and treatments 		
January' 20	Final Assessment		
<p>Self Defence Training for Girl Students : Commands - Ray Group, Right Rest - Hands down, Sico Dachi Punch Position - stance- ready up right side right leg with bothhands at waist with punch(close fingers & lock by thumb). Techniques - Middle Punch, Upper Punch, Lower Punch, Middle Finger's tips attack, Upper finger's tips attack, Lower finger's tips attack, Middle palm thrust, Upper palm thrust, Lower palm thrust, Temple attack, Temple short punch, Front elbow attack, Back elbow attack, Front block, Side block, Lower block, Chin shoggi, Front shoggi (Stomach), Ribs attack, Bus attack-self equipments-as mentioned earlier, Front kick, Side kick, Back kick, Single hand grip, Double hand grip and Attack on sensitive parts by hand & legs</p> <p>Name of Tests to be conducted : BMI, Partial Curl Up, Flexed / Bent Arm Hang, Sit and Reach, 600 Metre Run, Flamingo Balance Test, Shuttle Run, Sprint / Dash, Standing Vertical Jump, PLate Tapping and Alternative Hand Wall Test</p> <p>Note: Grading will be done as per CBSE guidelines.</p>			

Year Planner : 2019-2020		Class : XII
MONTH	DATE & DAY	DETAILS
March' 19	14.03.2019 (Thursday)	Commencement of the Session
April' 19	04.04.2019 (Thursday)	Value Education Workshop : Team Work by XII A
	11.04.2019 (Thursday)	Value Education Workshop : Honesty and Integrity by XII B
	18.04.2019 (Thursday)	Value Education Workshop : Fostering balance between Rights and Duties by XII C
	20.04.2019 (Saturday)	Parent's Workshop : Future Frontiers (Career Counseling)
	25.04.2019 (Thursday)	Value Education Workshop : Sensitivity towards Environment by XII D
	26.04.2019 (Friday)	Student's Workshop : Treading the Career Path
May' 19	27.04.2019 (Saturday)	Educational Visit : IIT Delhi (Science Students)
	03.05.2019 (Friday)	Principal's Session
June' 19	25.05.2019 (Saturday) to 31.05.2019 (Friday)	Summer Break
	01.06.2019 (Saturday) to 19.06.2019 (Wednesday)	Summer Break
July' 19	20.06.2019 (Thursday) to 28.06.2019 (Friday)	CT – 1 Examination (June Test)
	11.07.2019 (Thursday)	Students' Workshop : Social Networking Ethics
August' 19	27.07.2019 (Saturday)	Parent Teacher Meeting and Book Fair
	17.08.2019 (Saturday)	Parent's Workshop : 3 P's of Positive Parenting
September' 19	07.09.2019 (Saturday) to 16.09.2019 (Monday)	CT – 2 Examination
	19.09.2019 (Thursday)	Students' Workshop : Mapping for Success
October' 19	05.10.2019 (Saturday)	Parent Teacher Meeting and Book Fair
	09.11.2019 (Saturday)	'Chrysalis', Senior Annual Day & Prize Distribution Ceremony
November' 19	20.11.2019 (Wednesday)	Senior Sports Day
	11.11.2019 (Monday) to 20.11.2019 (Wednesday)	CT – 3 Examination
December' 19	06.12.2019 (Friday) to 19.12.2019 (Thursday)	Pre Board 1 Examination
	03.01.2020 (Friday) to 16.01.2020 (Thursday)	Pre Board 2 Examination
January' 20	18.01.2020 (Saturday)	Blessing Ceremony
	25.01.2020 (Saturday)	Parent Teacher Meeting and Book Fair
February – March' 20	Board Exams (As per CBSE Schedule)	

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.

List of Holidays: 2019-2020**Class : XII**

MONTH	DATE & DAY	DETAILS
April'19	17th Wednesday 19th Friday	Mahavir Jayanti Good Friday
May'19	18th Saturday	Buddha Purnima
August '19	12th Monday 15th Thursday 24th Saturday	Id – Ul – Zuha (Bakrid) Independence Day & Raksha Bandhan Janmashtami
September'19	10th Tuesday	Muharram
October'19	2nd Wednesday 7th Monday & 8th Tuesday 17th Thursday 26th Saturday to 29th Tuesday	Mahatma Gandhi Birthday Dussehra Karva Chauth Diwali Break
November'19	12th Tuesday	Guru Nanak's Birthday
December'19	25th Wednesday	Christmas Day
January'20	26th Sunday	Republic Day