

MODIFIED SYLLABUS AFTER RATIONALIZATION OF SYLLABUS BY CBSE

DELHI PUBLIC SCHOOL, GANDHINAGAR SYLLABUS 2020 – 21 CLASS XII - SCIENCE

MONTH	MAIN COURSE BOOK (FLAMINGO)	SUPPLEMENTARY READER(VISTAS)	ADVANCED WRITING SKILLS/ ACTIVITY
April	1. The Last Lesson (Prose) 2. My Mother at Sixty Six (Poem)	-----	1. Notice Writing
May	1. Lost Spring (Prose)	-----	-----
June	1. An Elementary School classroom in a slum (Poem) 2. Keeping Quiet (Poem)	1.The Third Level	1. Advertisement Writing 2. ASL Practice
July	1. Deep Water (Prose) 2. A Thing of Beauty(Poem)	1 The Enemy 2. Should Wizard Hit Mommy?	
<p style="text-align: center;">Syllabus for Periodic Test-I</p> <p>The Third Level, The Last Lesson ,Lost Spring, My Mother at Sixty Six, An Elementary School classroom in a slum Advanced Writing Skills: 1. Notice Writing 2. Advertisements</p>			
August	1. The Rattrap (Prose) 2. Indigo (Prose)	1. On the Face of it	1. Invitations and Replies 2. Newspaper & Magazine Report
September	1. Aunt Jennifer's Tigers (Poem)	1. Evans tries an O-Level	1. Article Writing
<p style="text-align: center;">Syllabus for Half-Yearly Examination</p> <p>The Last Lesson, My Mother at Sixty Six , Lost Spring , An Elementary School classroom in a slum , Keeping Quiet , The Third Level , Deep Water, A Thing of Beauty, The Enemy, Should Wizard Hit Mommy?, The Rattrap, Indigo , Aunt Jennifer's Tigers , On the Face of it,Evan's Tries an o-Level.</p> <p>WRITING SKILLS- Notice Writing, Advertisement Writing, Invitations and Replies, Newspaper & Magazine Report,Article PRACTICAL- ASL</p>			
October	Revision	Revision	1.Job application ASL Practice
November	Revision	Revision	Revision + ASL Practice
<p style="text-align: center;">Pre Board I & II : Complete Syllabus Practical- ASL</p>			

Subject: Physics

Month	Lessons/ Chapters	Activities/ Practical
April	L1: Electric charges and fields. L2: Electrostatic potential and capacitance	-----
May	L2: Electrostatic potential and capacitance (contd.)	
June	L2: Electrostatic potential and capacitance (contd.) L3: Current electricity	A-1. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source. A-2. To assemble the components of a given electrical circuit (say Ohm's Law Circuit). E-1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
July	L4: Moving charges and magnetism(contd.) L5: Magnetism and matter	E-2. To verify the laws of combination (series) of resistances using a metre bridge. E-3. To Compare the EMF of two given primary cells using a potentiometer
Syllabus for Periodic Test 1 - L1, L2, L3 and L4		
August	L6: Electromagnetic Induction L7: Alternating current L8: Electromagnetic waves	A-3. To study the variation in potential drop with length of a wire for a steady current. E-4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
September	L9: Ray optics and optical Instruments	A-4. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.
Syllabus for Half Yearly Examination - L1, L2, L3, L4, L5, L6, L7 and L8		
October	L9: Ray optics and optical Instruments (contd) L10: Wave optics	E-5. To find the focal length of a convex lens by plotting graphs between u and v. E-6. To determine refractive index of a glass slab using a travelling microscope. A-5. To observe polarization of light using two Polaroids.

November	L11: Dual nature of radiation and matter	E-7. To find refractive index of a liquid by using convex lens and plane mirror.
	L12: Atoms	E-8. To draw the I-V characteristic curve for a p-n junction in forward bias and reverse bias.
	L13: Nuclei	A.6. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.
	L14: Semiconductor electronics	
Pre Board I & II : Complete Syllabus		

Subject: Chemistry

Month	Lessons/ Chapters	Activities/ Practical
April	L:02 Solutions	-
	L:03 Electrochemistry	
May	L:03 Electrochemistry	-
June	L:04 Chemical Kinetics	01. Preparation of 250 ml M/20 solution of Mohr's solution. Determination of molarity and strength of KMnO_4 solution using Mohr's salt. 02. Preparation of 250 ml M/20 solution of Mohr's solution. Determine the percentage purity of KMnO_4 solution using Mohr's salt.
July	L:06 p-Block Elements L:07 d and f-Block Elements L:08 Coordination Compounds	03. Determination of water of crystallization in Mohr's salt by using 0.011M KMnO_4 solution. 04. Preparation of 250 ml M/50 solution of Oxalic acid solution. Determination of molarity and strength of KMnO_4 solution using Oxalic acid solution. 05. Find out the percentage purity of impure sample of oxalic acid. You are provided M/100 KMnO_4 solution. 06. Inorganic salt analysis: $[\text{Pb}(\text{NO}_3)_2, \text{NH}_4\text{Br}]$ 07. Inorganic salt analysis: $[\text{ZnCl}_2, \text{Al}(\text{NO}_3)_3, \text{BaCl}_2]$
Syllabus for Periodic Test -1: (L:02 Solutions, L:03 Electrochemistry, L:04 Chemical Kinetics, L:06 p-Block Elements)		
August	L:09 Haloalkanes & Haloarenes L:10 Alcohols, Phenols & Ethers L:11 Aldehydes, Ketones & Carboxylic acids L:12 Organic Compounds containing Nitrogen	08. Inorganic salt analysis: $[(\text{CH}_3\text{COO})_2\text{Pb}, (\text{NH}_4)_2\text{CO}_3, \text{Sr}(\text{NO}_3)_2]$ 09. Inorganic salt analysis: $[(\text{NH}_4)_3\text{PO}_4, \text{CaCl}_2, \text{MgSO}_4]$ 10. Inorganic salt analysis: $[\text{FeCl}_3, \text{ZnS}]$ 11. Organic functional group analysis: [Aldehyde, Ketone]
September	L:12 Organic Compounds containing Nitrogen	12. Organic functional group analysis: [Alcohol, Phenol] 13. Organic functional group analysis: [Carboxylic acid, Aromatic amine]
Syllabus for Half Yearly: (L:02, 03, 04, 06, 07, 08, 09 & 10)		
October	L:01 Solid State L:05 Surface Chemistry	Revision and Completion of Journal
November	L:13 Biomolecules	
Pre Board I & II : Complete Syllabus		

Subject: Biology

Month	Lessons/ Chapters	Activities/ Practical
April	2. Sexual reproduction in flowering plants.	
May	3. Human reproduction	
June	3. Human reproduction(contd.) 4. Reproductive health	A1. Study of pollen germination on a slide B3 Identification and study stages of gamete development in T.S of testis and ovary through permanent slides. B5. Study of T.S. of Blastula through permanent slide (Mammalian). B1. Study of flowers adapted to pollination by different agencies (Wind, insects, and birds).
July	5. Principles of inheritance and Variation 6. Molecular basis of inheritance	B7. Study of prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and color blindness. B4. Study of stages of meiosis in onion flower buds. A7. To prepare a temporary mount of onion root tip to study mitosis. Submission of project (rough)
Syllabus for Periodic Test 1 - Chapter:2,3,4 & 5		
August	8. Human health and disease	A9. To extract DNA. B9. To identify common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides or specimens. B10. Study of two plants and two animals (models/virtual images) found in xeric conditions. B11. Study of two plants and two animals (models/virtual images) found in aquatic conditions.
September	10. Microbes in human welfare	A2. Study of soil from at least two different sites for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
Syllabus for Half Yearly Exam - Chapter:2,3,4,5,6,8		
October	11. Biotechnology: Principles and processes 12. Biotechnology and its applications 13. Organisms and populations	A3. To study water collected from water bodies for pH, clarity and presence of any living organism.
November	15. Biodiversity and conservation	A8. To study the effect of different temperatures and three different pH on the activity of salivary amylase on starch. Submission of project (final copy)
Syllabus for Pre Board I & II- All Chapters		

Subject: Mathematics

Month	Lessons/ Chapters	Activities
April	Ch3. Matrices Ch4. Determinants	
May	Ch4. Determinants (Contd...)	
June	Ch1. Relations and Functions Ch2. Inverse Trigonometric Functions	(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. (2) To demonstrate a function which is not one-one but is onto.
July	Ch2. Inverse Trigonometric Functions (Contd...) Ch5. Continuity and Differentiability	(3) To demonstrate a function which is one-one but not onto. (4) To find analytically the limit of a function at a point and also to check the continuity of the function at that point.
Syllabus for P.T. 1 : Chapters : 1, 2, 3 and 4		
August	Ch5. Continuity and Differentiability (Contd...) Ch6. Application of Derivatives	(5) To verify Rolle's theorem. (6) To understand the concepts of absolute maximum and absolute minimum of a function in a given closed interval through its graph.
September	Ch7. Integrals	(7) To evaluate the definite integral $\int_a^b \sqrt{1-x^2} dx$ as the limit of a sum and verify it by actual integration.
Syllabus for Half Yearly Examination (September): Chapters : 1, 2, 3, 4, 5 and 6		
October	Ch7. Integrals(Contd...) Ch8. Application of Integrals Ch9. Differential Equations Ch10. Vector Algebra	(8) To verify geometrically that $\vec{c} \times (\vec{a} + \vec{b}) = \vec{c} \times \vec{a} + \vec{c} \times \vec{b}$. (9) To locate the points to given co-ordinates in space, measure the distance between two points in space and then to verify the distance using distance formula.
November	Ch11. Three dimensional geometry Ch13. Probability Ch12. Linear Programming	(10) To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of a dice.
Syllabus for Pre Board I & II: All chapters		

Subject: Physical Education

Month	Lessons/ Chapters	Activities/ Practical
April	Unit 1 : Planning in Sports. Unit 2: Sports & Nutrition.	
May	Unit 3: Yoga & Lifestyle	
June	Physical Education & Sports for CWSN	
Syllabus for Periodic Test-1 : Unit: 1 ,Unit: 2, Unit:3 & Unit: 4		
July	Unit 5: Children & women in sports Unit 6: Test & Measurement	
August	Unit:7 Physiology & sports	
September	Unit:8 Biomechanics & sports	
Syllabus for Half Yearly Examination (September): Unit : 1, Unit:2, Unit : 3 , Unit :4 & Unit : 5		
October	Unit:9 Psychology & sports	
November	Unit:10 Training	
Syllabus for Pre Board I & II : All Units		

Subject: Computer Science

Month	Lessons/ Chapters	Activities
April	Ch1. Python Revision Tour-I Ch2. Python Revision Tour-II Ch3. Working With Functions	Program based on Functions
May	Ch4. Using Python Libraries	
June	Ch4. Using Python Libraries (Contd... Ch5. File Handling	Program based on Libraries Program based on Files
July	Ch5. File Handling (Contd...)	Program Based on File Handling
Syllabus for P.T. 1 : Chapters : 1, 2, 3 and 4		
August	Ch5. File Handling(CSV Files) Ch9.Data Structures : stacks and Queues using Lists	Program based on Stacks and Queues
September	Ch9.Data Structures : stacks and Queues using Lists(Contd...) Ch12. MYSQL SQL Revision Tour	Program based on Stacks and Queues
Syllabus for Half Yearly Examination (September): Chapters : 1, 2, 3, 4, 5, and 9		
October	Ch12. MYSQL SQL Revision Tour (Continue) Ch13. More on SQL Ch15. Interface Python with MySQL	SQL and Introduction to Project
November	Ch10.Computer Networks - I Ch11.Computer Networks-II	Project Work
Syllabus for Pre Board I & II : All chapters		