

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Academic Session 2024-2025
Month-Wise Split-up Syllabus for class XI
Subject: English Core

MONTH	No. of working Days	Hornbill	Snapshots	Writing skills Grammar	Remarks
April	23				
May June	03 10	The Portrait of a lady A Photograph		Classified Advertisements	
July	25	We are not afraid to die.. if we can all be together The Laburnum Top	The Summer of a beautiful white horse	Posters Speech Writing Tenses Clauses Note Making & Summarizing	Syllabus for PT-1 All lessons, poems and topics completed till July 2024.
August	25	Voice of the rain Discovering Tut: the saga continues	The Address	Debate Writing Speech Writing Reordering Sentences	
September	22	Revision for HY/PT-2 Childhood The Adventure	Revision for HY/PT-2	Advertisements Posters Tenses Transformation of Sentences	Syllabus for HY/PT-2 : All lessons, poems and topics completed till 31 August 2024
October	10	Father to Son	Mother's Day	Integrated Grammar Practice	
November	24	Silk Road	Birth	Debate Writing Speech Writing IGP	
December	15	Discussion & Debates on current issues	The tale of a melon city	Classified Advertisements Reading Comprehension	
January	22	Revision for PT-3 ASL Project Work	Revision for PT-3 ASL Project Work	Posters Note Making & Summarizing	Syllabus for PT-3 All lessons, poems and topics completed in Sept, Oct, Nov & Dec 2024

				Debates on Contemporary issues	
February	23	ASL & Revision Viva	ASL & Revision Viva	Revision	
March		Annual Exams	Annual Exams	Annual Exams	

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Academic Session 2024-2025
Month-Wise Split-up Syllabus for class XI
Class: XI Subject: MATHEMATICS (041)

Sr. No.	Month	No. of working days	Unit/ Chapter/ Topics	Examination
1	June	10	1. Sets	
2	July	25	2. Relations & Functions 3. Trigonometric Functions	PT – I (Syllabus- Lessons - 1, 2 & 3)
3	August	25	4. Complex Numbers and Quadratic Equations 5. Linear Inequalities	
4	September	25	6. Permutations and Combinations 7. Binomial Theorem	PT – II/Half Yearly (Lessons 1 to 7)
5	October	10	8. Sequence and Series	Diwali Break (10 days)
6	November	24	SUPPLEMENTARY MATERIAL (Chapter - 8) ** Infinite G.P. and its Sum 9. Straight Lines	
7	December	15	10. Conic Sections 11. Introduction to Three-dimensional Geometry	Winter Break (11 days)
8	January	22	12. Limits and Derivatives SUPPLEMENTARY MATERIAL (Chapter - 12) ** Limits Involving Exponential and Logarithmic Functions 13. Statistics	PT – III (Lessons - 8, 9, 10 & 11)
9	February	23	14. Probability Revision for Annual Exam - 2024	
10	March	---		Annual Exam

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Academic Session 2024-2025
Month-Wise Split-up Syllabus for class XI
Split UP Syllabus for Session 2024-25

Class XI

Subject: Physics

Sr. No.	Month	No. of Teaching days	Chapter No.	Name of Chapter	Examination & portion for Exam
1	June	10	1	Unit, Measurement & Dimensions	
2	July	25	2&3	2. Motion in Straight Line 3. Motion in Plane	PT-1 (Chapter 1 to 2)
3	August	25	4&5	4. Laws of Motion 5. Work Energy & Power	
4	September	22	6	6. System of Particles & Rotational Motion	Half Yearly Examinations (Chapter 1 to 5)
5	October	10	7	7. Gravitation	
6	November	24	8.9 &10	8. Mechanical Properties of solid 9. Mechanical Properties of Fluids 10. Thermal Properties of Matter	
7	December	15	11 &12	11. Thermodynamics 12. Kinetic Theory of Gases	
8	January	22	13 &14	13. Oscillation 14. Wave Motion	PT -2 (Chapter 6 to 9)
9	February	23		Revision	
10	March			Annual Examination	

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Month-wise Split up of Syllabus for 2024-25

Class: XI

Subject: Chemistry

S. No.	Month	No. of Working days	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	July & August		<p><u>Unit I: Some Basic Concepts of Chemistry</u> General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.</p> <p><u>Unit II: Structure of Atom</u> Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filled orbitals.</p>	<p>1. Unit Test 1 (September):</p> <p>Unit I & Unit II</p>
2	September		<p><u>Unit III: Classification of Elements and Periodicity in Properties</u> Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100.</p> <p><u>Unit IV: Chemical Bonding and Molecular Structure</u> Valence electrons, ionic bond, covalent bond, bond parameters, Lewis's structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules,</p>	

3	October	<p><u>Unit IV: Chemical Bonding and Molecular Structure</u> VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), Hydrogen bond.</p> <p><u>Unit VI: Chemical Thermodynamics</u> Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics (brief introduction) Introduction of entropy as a state function, Gibb's energy change for spontaneous and non- spontaneous processes, criteria for equilibrium. Third law of thermodynamics (brief introduction).</p>	<p>(November last Week):</p> <p>Units I, II, III, IV, VI,VIII</p> <p>3. Unit Test 2 (January): Units XII, XIII</p> <p>4. Pre-Annual Exam (March first week): Complete Syllabus</p> <p>5. Annual Exam (March Last Week): Complete Syllabus</p>
4	November	<p><u>Unit VIII: Redox Reactions</u> Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.</p> <p><u>Unit XII: Organic Chemistry -Some Basic Principles and Techniques</u> General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.</p>	
5	December	<p><u>Unit XIII: Hydrocarbons</u> Classification of Hydrocarbons Aliphatic Hydrocarbons: Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, the structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect),</p>	

			<p>ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes - Nomenclature, the structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water. Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of the functional group in monosubstituted benzene. Carcinogenicity and toxicity.</p>	
6	January		<p><u>Unit VII: Equilibrium</u> Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples)</p>	
7	February		Revision	
8	March		Revision	

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Academic Session 2024-2025
Month-Wise Split-up Syllabus for class XI
Subject: Computer Science (083) Class: XI

Sr. No.	Month	No. of working days	Unit/ Chapter/ Topics	
1	April	23	---	
2	May	03	---	
3	June	10	Unit – 1: Computer Systems and Organisation	
4	July	25	Unit – 1: Computer Systems and Organisation cont. Unit 2: Computational Thinking and Programming – I -introduction, upto datatypes	PT – I (Syllabus- Unit -1 and Unit 2 (up to operators))
5	August	25	Unit 2: Computational Thinking and Programming – I operators, expressions	
6	September	22	Unit 2: Computational Thinking and Programming – I errors, flow of control	PT – II (syllabus- up to iterative statements)
7	October	10	Unit 2: Computational Thinking and Programming – I conditional statements.	Diwali Break (10 days)
8	November	24	Unit 2: Computational Thinking and Programming – I conditional statements cont., Iterative statements, strings,	
9	December	15	Unit 2: Computational Thinking and Programming – I strings, lists.	Winter Break (11 days)
10	January	22	Unit 2: Computational Thinking and Programming – I tuple, dict, modules Unit 3: Society, Law and Ethics – intro.	PT – III (Syllabus – lists, tuples, dictionary)

11	February	23	Unit 3: Society, Law and Ethics Revision	Practical Exam
12	March	---		Annual Exam

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Academic Session 2024-2025
Month-Wise Split-up Syllabus for class XI
Subject: Physical Education (048)

Sr. No.	Month	No. of working days	Unit/ Chapter/ Topics	
1	April	23	----	
2	May	03	----	
3	June	10	Unit - 1: Changing Trends and Careers in Physical Education.	
4	July	25	Unit - 2: Olympism Value Education Unit - 3: Yoga Revision of UT -1 Exam	
5	August	25	Unit 4: Physical Education and Sports for Children with Special Needs.	UT – I Exam (Syllabus- unit -1 and unit 2)
6	September	22	Unit 5: Physical Fitness, Wellness, and Lifestyle. Revision of Half Yearly Exam	Half Yearly (Syllabus- unit 3, 4 & unit 5) Half Yearly Practicals
7	October	10	Unit 6: Test, Measurement & Evaluation.	Diwali Break (10 days)
8	November	24	Unit 7: Fundamentals of Anatomy, Physiology in Sports.	
9	December	15	Unit 8: Fundamentals of Kinesiology And Biomechanics in Sports. Revision of UT -2 Exam	Winter Break (11 days)
10	January	22	Unit 9: Psychology and Sports.	UT – II Exams (Syllabus- unit -6, 7 & unit 8)
11	February	23	Unit 10: Training & Doping in Sports. Revision of Annual Exam	Annual Practical Exam
12	March	---		Annual Exam

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI

Month - wise Split up of Syllabus for 2024-25

Class: XI

Subject: BIOLOGY

Sr. No.	Month	No. of Working days	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	June	10	Ch. 1. The living world Ch. 2. Biological Classification	1. Unit Test 1 (August): Chapters: 1, 2 and 3. 2. Half Yearly Exam (September) Chapters: 1, 2, 3, 4, 5, 6, 7, 8 and 9. 3. Unit Test 2 (January): Chapters: 10, 13, 14 and 15. 4. Pre-Annual Exam Complete Syllabus
2	July	25	Ch.3. Plant kingdom Ch.4. Animal kingdom Ch.5. Morphology of Flowering plants.	
3	August	25	Ch.6. Anatomy of flowering plants. Ch.7. Structural organization in animals. Ch.8. Cell, the unit of life.	
4	September	22	Ch.9. Biomolecules. Ch.10. Cell cycle and Cell division.	
5	October	10	Ch.13. Photosynthesis.	
Diwali break (10 days) Grp-A and Grp-B				
6	November	24	Ch.14. Respiration in plants. Ch.15. Plant growth and Development.	
7	December	15	Ch.17. Breathing and Exchange of gases. Ch.18. Body fluids and circulation.	
Winter Break (11 days) Grp-A and Grp-B				
8	January	22	Ch.19. Excretory products and their elimination Ch.20. Locomotion and Movement. Ch.21. Neural Control and Coordination.	
9	February	23	Ch.22. Chemical coordination and Integration (Syllabus completion up to 2 nd week of Feb) Revision	
10	March		Annual Exam (March) Complete Syllabus	

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI**Month - wise Split up of Syllabus for 2024-25****Subject : Hindi (Subject Code : 302)****Class : XI**

Sl. No	Month	No. of Working days	Chapters/Lessons/Units to be taught in that month	Remarks
1.	July	25	आरोह भाग - १ पद्य 1. कबीर (हम तौ एक-एक कर जाना) 2. मीरा (मेरे तो गिरधर गोपाल) गद्य 1. नमक का दारोगा रचनात्मक लेखन , अभिव्यक्ति और माध्यम पाठ - १	PT 1 – Syllabus आरोह भाग - १ पद्य 1. कबीर (हम तौ एक-एक कर जाना) 2. मीरा (मेरे तो गिरधर गोपाल) गद्य 1. नमक का दारोगा रचनात्मक लेखन , अभिव्यक्ति और माध्यम पाठ - १
2.	August	25	पद्य 5. घर की याद गद्य 2. मियां नसरुद्दीन वितान भाग - १ 1. भारतीय गायिकाओं में बेजोड़ अभिव्यक्ति और माध्यम पाठ २	
3.	September	22	पद्य 6. चंपा काले काले अच्छर नहीं चीन्हती गद्य 3. अपू के साथ ढाई साल अभिव्यक्ति और माध्यम पाठ ९ , १० अपठित गद्यांश , अप्रत्याशित विषयों के लेखन , स्ववृत्त्य लेखन , शब्दकोश	PT 2 – Syllabus पद्य 5. घर की याद गद्य 2. मियां नसरुद्दीन वितान भाग - १ 1. भारतीय गायिकाओं में बेजोड़ अभिव्यक्ति और माध्यम पाठ २
4.	October	10	पद्य 7. गजल गद्य 4. विदाई संभाषण वितान 2. राजस्थान की रजत बूंदे अपठित पद्यांश , औपचारिक पत्र लेखन , रोजगार सम्बन्धी आवेदन पत्र	Diwali Break (10 days)
5.	November	24	पद्य 8. हे भूख मत मचल, हे मेरे जूही के फूल गद्य 5. गलता लोहा वितान 3. आलो अंधारि	
6.	December	15	पद्य 9. सबसे खतरनाक गद्य 7. रजनी , 8. जामुन का पेड़ अभिव्यक्ति और माध्यम पाठ १४ , १५ , १६	Winter Break (11 days)
7.	January	22	पद्य 10. आओ मिलकर बचाएं गद्य 9. भारत माता अभिव्यक्ति और माध्यम- डायरी लेखन , कथा पटकथा लेखन	PT 3 – Syllabus पद्य 8. हे भूख मत मचल, हे मेरे जूही के फूल गद्य 5. गलता लोहा वितान 3. आलो अंधारि पद्य 9. सबसे खतरनाक गद्य 7. रजनी , 8. जामुन का पेड़ अभिव्यक्ति और माध्यम पाठ १४ , १५ , १६
8.	February	23	पुनरावृत्ति	
9.	March	-	वार्षिक परीक्षा २०२४	