

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Month-wise Split up of Syllabus for 2022-23

Class: XI

Subject : English

Sr. No.	Month	No. of Working days */**	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	August	19/19 (depending on start of Class XI)	HB 1. The Portrait of a Lady HB 2. A Photograph (Poem) SS1. The Summer of the Beautiful White Horse Note Making, Summarizing Poster	HB 1. The Portrait of a Lady HB 2. A Photograph (Poem) HB 3. We're not Afraid to Die if... We Can All Be Together SS1. The Summer of the Beautiful White Horse <u>Writing Section</u> : Note Making, Summarizing Poster <u>Grammar</u> : Tenses
2	September	19/24	HB 3. We're not Afraid to Die if... We Can All Be Together SS2. The Address <u>Writing Section</u> : Classified Advertisements, Speech Writing, Debate writing <u>Grammar</u> : Tenses	<u>Unit Test 1: (September)</u> HB4. Discovering Tut: the Saga Continues... HB5. The Laburnum Top (Poem) HB6. The Voice of the Rain (Poem) SS2. The Address SS3. Mother's Day (Play) <u>Writing Section</u> :
3	October	18/12	HB4. Discovering Tut: the Saga Continues... HB5. The Laburnum Top (Poem) <u>Grammar</u> : Transformation of sentences-Reported Speech	Classified Advertisements Speech Writing <u>Grammar</u> : Transformation of sentences (Active-Passive voice) ❖ Portion of UT I & Till November for HY Half Yearly Exam :(November last Week)
4	November	24/24	HB6. The Voice of the Rain (Poem) HB7. The Childhood (Poem) SS3. Mother's Day (Play) <u>Grammar</u> : Transformation of sentences (Active-Passive voice)	HB7. The Childhood (Poem) HB 8. The Adventure HB 9. Silk Road SS 4. Birth (Prose) <u>Writing Section</u> : Debate writing <u>Grammar</u> : Transformation of Sentences-Clauses, Sentence reordering

5	December	16/16	HB 8. The Adventure SS 4. Birth (Prose) <u>Grammar: Transformation of Sentences-Clauses</u>	
6	January	23/23	HB 9. Silk Road HB 10. Father to Son <u>Grammar: Sentence reordering</u>	<u>Unit Test 2: (January)</u> HB 10. Father to Son SS 5. The Tale of Melon City
7	February	22/22	SS 5. The Tale of Melon City <u>Revision of Writing Section</u>	Pre-Annual Exam (March first week): Complete Syllabus
8	March	23/23	Revision	5. Annual Exam (March Last Week): Complete Syllabus

*No. of working days for Group – A schools, ** No. of working days for Group – B schools

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Month-wise Split up of Syllabus for 2022-23

Class: XI (2022-23)

Subject: Mathematics

S. No.	Month	No. of Working days */**	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	August	19/19 (depending on start of Class XI)	Chapter No- 01: Sets (Exercise 1.1 to 1.5 & Question Nos 1 to 12 of Miscellaneous Exercise along with Miscellaneous Example Nos 28 to 31) Chapter No- 02: Relations & Functions (All Exercises)	1. Periodic Test -1 (September): Chapter Nos: 1 & 2 Max Marks : 40 Time : $1\frac{1}{2}$ 2. Periodic Test - 2 (November last Week): Chapter Nos: 3, 4, 6, 7 Max Marks : 40 Time : $1\frac{1}{2}$ 3. Periodic Test - 3 (January): Chapter Nos: 8, 9 (AP & AM Only) & 12 Max Marks : 40 Time : $1\frac{1}{2}$ 4. Pre-Annual Exam (March first week): Complete Syllabus 5. Annual Exam (March Last Week): Complete Syllabus
2	September	19/24	Chapter No- 03: Trigonometric Functions (Exercise 3.1 & 3.2)	
3	October	18/12	Chapter No- 03: Trigonometric Functions (Exercise 3.3 & Miscellaneous Exercise) Chapter No- 04: Complex Numbers & Quadratic Equations (Except Polar forms of complex number)	
4	November	24/24	Chapter No- 04: Complex Numbers & Quadratic Equations (Miscellaneous Exercise) Chapter No – 06: Linear Inequalities (Exercise 6.1 & Miscellaneous Exercise) Chapter No- 07: Permutation & Combination (All Exercises)	
5	December	16/16	Chapter No- 08: Binomial Theorem (Exercise 8.1 & Question Nos 4 to 7 and 9 & 10 of Miscellaneous Exercise) Chapter No- 12: Introduction of Three Dimensional Geometry (Exercise 12.1 to 12.2 along with Miscellaneous Examples 11 & 12 and Question Nos 4 & 6 of Miscellaneous Exercise)	
6	January	23/23	Chapter No- 9: Sequence & Series (Exercise 9.1 to 9.3 and Question Nos 01 to 21 of Miscellaneous Exercise) Chapter No- 10: Straight Lines (All Exercises) Chapter No- 11: Conic Sections (Exercise 11.1 to 11.4)	
7	February	22/22	Chapter No- 13: Limits & Derivatives (All Exercises) Chapter No- 15: Statistics (Except Analysis of frequency Distribution) Chapter No- 16: Probability (All Exercises)	
8	March	23/23	Revision/ Confidence Examination	

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As per https://cbseacademic.nic.in/web_material/CurriculumMain23/SrSec/Maths_SrSec_2022-23.pdf

Internal Assessment	Periodic Tests (Best 2 out of 3 tests conducted) 10 Marks	Mathematics Activities 10 Marks	Total Internal Marks 20 Marks
Pre Annual & Annual Examination	80 Marks		
Grand Total	100 Marks		

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Month-wise Split up of Syllabus for 2022-23

Class: XI

Subject: Physics

S. No.	Month	No. of Working days */**	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	August	19/19 (depending on start of Class XI)	2. Units and Measurement 3. Motion in a Straight Line	1. Unit Test 1 (September): Chapter. 2 & 3 2. Half Yearly Exam (November last Week): Chapters 2,3,4,5 and 6. 3. Unit Test 2 (January): Chapters 7,8, 9 and 10 4. Pre-Annual Exam (March first week): Complete Syllabus 5. Annual Exam (March Last Week): Complete Syllabus
2	September	19/24	4. Motion in a Plane 5. Laws of Motion	
3	October	18/12	6. Work ,Energy and Power 7. System of Particles and Rotational Motion	
4	November	24/24	8. Gravitation 9. Mechanical Properties of Solids	
5	December	16/16	10. Mechanical Properties of Fluids	
6	January	23/23	11. Thermal Properties of Matter 12. Thermodynamics 13. Kinetic Theory	
7	February	22/22	14. Oscillations 15. Waves	
8	March	23/23	Revision	

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ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Month-wise Split up of Syllabus for 2022-23

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	August	19/19 (depending on start of Class XI)	<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	19/24	<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	18/12	<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</p>	

			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).	
4	November	24/24	<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. <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.	2. Half Yearly Exam (November last Week): Units I, II, III, IV, VI, VIII
5	December	16/16	<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), 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.	3. Unit Test 2 (January): Units XII, XIII
6	January	23/23	<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)	4. Pre-Annual Exam (March first week): Complete Syllabus 5. Annual Exam (March Last Week): Complete Syllabus
7	February	22/22	Revision	
8	March	23/23	Revision	

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ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI

Month - wise Split up of Syllabus for 2022-23

Sr. No.	Month	No. of Working days */**	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	August	19/19 (depending on start of Class XI)	Ch. 1.The living world Ch. 2. Biological Classification Ch. 3.Plant kingdom (TOPIC EXCLUDED- Angiosperms , plant life cycle and alternation of generation)	1. Unit Test 1 (September): Chapters: 1, 2 and 3. 2. Half Yearly Exam (November last Week): 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 (March first week): Complete Syllabus 5. Annual Exam (March Last Week): Complete Syllabus
2	September	19/24	Ch.4. Animal kingdom Ch.5. Morphology of Flowering plants. Ch.6. Anatomy of flowering plants. (Anatomy and functions of tissue systems in dicots and monocots)	
3	October	18/12	Ch.7. Structural organization in animals. (Morphology ,anatomy, and functions of different systems of frog) Ch.8. Cell, the unit of life.	
4	November	24/24	Ch.9.Biomolecules. (TOPIC EXCLUDED – Nature of bond linking monomers in a polymer, dynamic state of body constituents , concept of metabolism, metabolic basis of living, the living state) Ch.10. Cell cycle and Cell division. Ch.13. Photosynthesis.	
5	December	16/16	Ch.14. Respiration in plants. Ch.15. Plant growth and Development.	
6	January	23/23	Ch.17. Breathing and Exchange of gases. Ch.18. Body fluids and circulation. Ch.19. Excretory products and their elimination.	
7	February	22/22	Ch.20. Locomotion and Movement. Ch.21. Neural Control and Coordination. Ch.22. Chemical coordination and Integration.	
8	March	23/23	Revision	

Class: XI

Subject: BIOLOGY

*No. of working days for Group – A schools, ** No. of working days for Group – B schools

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI
Month-wise Split up of Syllabus for 2022-23

Class: XI

Subject: Computer Science

(Reference Book : Computer Science with Python by Preeti Arora –Sultan Chand-2022)

S.No.	Month	No. of Working Days */**	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	August, 2022	19/19 (depending on start of Class XI)	<p>Unit I: Computer Systems and Organisation</p> <p>Basic Computer Organisation: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB)</p> <p>Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software</p> <p>Operating system(OS): functions of operating system, OS user interface</p>	
2	September, 2022	19/24	<p>Unit I: Computer Systems and Organisation</p> <p>Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth table, DeMorgan's laws and logic circuits</p> <p>Number system: Binary, Octal, Decimal and Hexadecimal number system, conversion between number systems.</p> <p>Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32)</p> <p>Errors: syntax errors, logical errors, runtime errors</p>	<p>1. Unit Test 1 (September):</p> <p>Portion: Up to Conversion between Number Systems</p>
3	October, 2022	18/12	<p>Unit II: Computational Thinking and Programming-1</p> <p>Introduction to problem solving: Steps for problem solving (analysing the problem, developing an algorithm, coding, testing and debugging). representation of algorithms using flow chart and pseudo code, decomposition</p> <p>Familiarization with the basics of Python programming: Introduction to Python, features of Python, executing a simple "hello world" program</p>	
4	November, 2022	24/24	<p>Unit II: Computational Thinking and Programming-1</p> <p>Execution modes: interactive mode and script mode, Python character set, Python tokens (keyword, identifier, literal, operator,</p>	<p>2. Half Yearly Exam (November Last Week)</p>

			<p>punctuator), variables, concept of l-value and r-value, use of comments</p> <p>Knowledge of data types: number(integer, floating point, complex), boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types</p> <p>Operators: arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators(is, is not), membership operators (in, not in)</p> <p>Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output</p> <p>Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control</p> <p>Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e.g.: absolute value,sort3 numbers and divisibility of a number</p> <p>Iterative statements: for loop, range function, while loop, flow charts, break and continue statements, nested loops</p>	Portion : up to Nested Loops
5	December, 2022	16/16	<p>Unit II: Computational Thinking and Programming–1</p> <p>Strings: introduction, indexing, string operations (concatenation, repetition, membership & slicing),traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(),rstrip(), strip(), replace(), join(), partition(), split()</p> <p>Lists: introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists</p>	
6	January, 2023	23/23	<p>Unit II: Computational Thinking and Programming–1</p> <p>Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple</p> <p>Dictionary: introduction, accessing items</p>	<p>3. Unit Test 2 (January)</p> <p>Portion : String , Lists and Tuples</p>

			<p>in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item),traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy();</p> <p>Introduction to Python modules: Importing module using 'import <module>' and using from statement, Importing math module (pi, e, sqrt, ceil, floor, pow, fabs, sin, cos, tan); random module (random, randint, randrange), statistics module (mean, median, mode)</p>	
7	February, 2023	22/22	<p>Unit III: Society, Law and Ethics</p> <p>Digital Foot prints</p> <p>Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes</p> <p>Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trade mark infringement), open-source software and licensing (Creative Commons, GPL and Apache)</p> <p>Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cybercrime</p> <p>Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying.</p> <p>Safely accessing websites: malware, viruses, trojans, adware</p> <p>E-waste management: proper disposal of used electronic gadgets Indian Information Technology Act (ITAct)</p> <p>Technology & Society: Gender and disability issues while teaching and using computers</p>	
8	March, 2023	23/23	Revision	<p>4. Pre-Annual Exam (March first week): Complete Syllabus</p> <p>5. Annual Exam (March Last Week):Complete Syllabus</p>

*No. of working days for Group – A schools, ** No. of working days for Group – B schools

ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI

Month - wise Split up of Syllabus for 2022-23

Class: 11

Subject: हिंदी (केंद्रिक)

पुस्तक-आरोहभाग -1 , वितानभाग-1 तथा अभिव्यक्ति और माध्यम

S. No.	Month	No. of Working days */**	Chapters/Lessons/Unit to be taught in that month	Examination and Portion for the Exam
1	August/ अगस्त	19/19 (depending on start of Class XI)	पद्य 1. कबीर 2. मीरा पाठ-1. नमक का दारोगा निबंध लेखन	इकाई परीक्षा-1 अगस्त और सितंबर का पाठ्यक्रम
2	September/ सितम्बर	19/24	पाठ-2. मियाँ नसीरुद्दीन 3. अपू के साथ ई साल डायरी लेखन , कथा-पटकथा वितान-1 भारतीय गायिकाओं में बेजोड़ -लता मंगेशकर	
3	October/ अक्टूबर	18/12	पद्य 5° भवानी प्रसाद मिश्र (घर की याद) स्ववृत्त लेखन और रोजगार संबंधी आवेदन पाठ4-विदाई संभाषण पाठ-5°गलता लोहा	
4	November/ नवंबर	24/24	पद्य-6 चम्पा काले अक्षर नहीं चीन्हती पद्य-7° दुष्यंत कुमार (गजल) पाठ- 7 रजनी वितान -2° राजस्थान की रजत बूँदें , शब्दकोश	2-अर्धवाषिक परीक्षा अगस्त से नवंबर तक का पाठ्यक्रम
5	December/ दिसंबर	16/16	पद्य-8 हे भूख मत मचल हे मेरे जूही के फूल जैसे ईश्वर पाठ-8° जामुन का पेड़	
6	January/ जनवरी	23/23	पद्य9-सबसे खतरनाक पद्य10. निर्मला पुतुल (आओ, मिलकर बचाए पाठ-9°भारत माता वितान- 3° आलो- आँधारि संदर्भ ग्रन्थों की उपयोगी विधि	3. इकाई परीक्षा-2 दिसंबर और जनवरी का पाठ्यक्रम
7	February/ फरवरी	22/22	Pre-Annual Exam	

8	March/ मार्च	23/23	<p>Revision / Annual Exam</p> <p>पुनरावृत्ति और परीक्षा</p> <p>निम्नलिखित पाठ हटा दिये गए हैं। कबीरपद-2 , मीरा पद-2 , रामनरेश त्रिपाठी -पथिक (पूरा पाठ) सुमित्रानंदन पंत- वे आँखें (पूरा पाठ) कृष्णनाथ-स्पीति में बारिश (पूरा पाठ) सैयद हैदर रजा - आत्मा का ताप (पूरा पाठ)</p>	<p>4. Pre-Annual Exam (March first week): Complete Syllabus</p> <p>5. Annual Exam (March Last Week): Complete Syllabus</p>
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