

MONTHLY SYLLABUS	
SESSION 2018-19	
CLASS-X	
SUBJECT- ENGLISH	
Month	Content
April 2018-19	<b>Lit:</b> Two Gentlemen of Verona, <b>Poem:</b> The Frog & Nightingale, <b>Grammar:</b> Determiners, Editing, Gap Filling, <b>Writing-</b> ,Article, Letter
May 2018-19	Lit:Mrs. Packletide's Tiger, Poem: Mirror, Grammar: Active/Passive Voice, Tenses
July 2018-19	<b>Lit:</b> The Letter, <b>Novel:</b> Chapter 1-10, <b>MCB,</b> Health & Medicine, <b>Grammar:</b> Conversation, <b>Writing:</b> Diary Entry
August 2018-19	Drama-The Dear Departed, <b>Poem:</b> Not marble nor the gilded monuments, <b>Novel:</b> Chapter 11-14, <b>MCB,</b> Education science, grammar: Preposition, <b>Writing:</b> Formal/ informal letter,Story Writing
September 2018-19	<b>TERM-1 EXAMS</b>
October 2018-19	<b>Lit:</b> A Shady Plot, <b>Poem:</b> Ozymandias, Snake, <b>MCB:</b> Environment, <b>Grammar:</b> Connectors, Editing, Writing: Article writing,
November 2018-19	<b>Lit:</b> Patol Babu, <b>Poem:</b> The Rime of an Ancient Mariner, <b>Novel:</b> Chapter 15-16
December 2018-19	<b>Lit:</b> Virtually True, <b>Novel:</b> Chapter 17-19, <b>MCB:</b> Travel & Tourism, National integration, Grammar: Determiners ,Gap Filling, Omission, Writing- Letter
January 2018-19	<b>Lit:</b> Julius Ceasar, <b>Novel-</b> Chapter 20-23 <b>Revision</b> Grammar, Process writing
February 2018-19	<b>REVISION FOR FINAL EXAMINATION</b>
March 2018-19	<b>FINAL EXAMS</b>

**MONTHLY SYLLABUS FOR CLASS – X (2018-19) SUBJECT:  
HINDI**

पाठ्य पुस्तकें – 1) स्पर्ष (भाग – 2)

2) संचयन (भाग – 2)

3) व्याकरण

- APRIL:** स्पर्ष : गद्य खण्ड – पाठ 1. बड़े भाई साहब  
पद्य खंड – पाठ 1. कबीर की साखी  
व्याकरण : पाठ – 1. षब्द व पद में अंतर,  
पाठ – 2. रचना के आधार पर वाक्य रूपांतर
- MAY:** स्पर्ष : गद्य खण्ड – पाठ 2. डायरी का एक पन्ना  
पद्य खण्ड – पाठ 5. पर्वत प्रदेश में पावस  
संचयन : पाठ – 1. हरिहर काका  
व्याकरण : विज्ञापन लेखन, औपचारिक पत्र, अपठित गद्यांश।
- JULY:** स्पर्ष : गद्य खण्ड – पाठ 3. ततौरा वामीरो कथा  
पाठ 4. तीसरी कसम के षिल्पकार षैलेंद्र  
पद्य खण्ड – पाठ 2. मीरा के पद  
व्याकरण : पाठ 3. समास
- AUGUST:** स्पर्ष : पद्य खण्ड – पाठ : 4. मनुष्यता, पाठ 7. तोप  
संचयन : पाठ 2. सपनों के से दिन  
व्याकरण : सूचना लेखन, अनुच्छेद, अपठित काव्यांश, संवाद लेखन।
- OCTOBER:** स्पर्ष : गद्य खंड – पाठ : 5. गिरगिट  
पाठ : 6. अब कहाँ दूसरों के दुख में दुखी होने वाले पद्य  
खंड – पाठ : 3. बिहारी के दोहे  
व्याकरण : मुहावरे  
स्पर्ष : गद्य खंड – पाठ 7. पतझड़ में टूटी पत्तियाँ। पद्य खंड – पाठ 6.  
मधुर—मधुर मेरे दीपक जल

<b>NOVEMBER:</b>	स्पर्ष : गद्य खंड – पाठ 8. कारतूस पद्य खंड – पाठ 8. कर चले हम फ़िदा
<b>DECEMBER:</b>	स्पर्ष : पद्य खंड – पाठ 9. आत्मत्राण संचयन : पाठ 3. टोपी बुक्ला व्याकरण – पाठ 4. अषुद्धि षोधन
<b>JANUARY:</b>	पुनरावृत्ति

**MONTHLY SYLLABUS**

**SESSION-2018-19**

**CLASS-X**

**SUBJECT : SCIENCE**

<b>MONTH</b>	<b>CONTENTS</b>
April 2018	<p><b><u>LIFE PROCESSES</u></b> 'Living Being', Basic concept of nutrition, respiration, transport and excretion in plants and animals.</p> <p><b><u>CHEMICAL REACTIONS</u></b> Chemical equation, Balanced chemical equation implication of a balanced chemical equation, types of chemical reactions : Combination, decomposition, displacement, double displacement precipitation, neutralization, oxidation and reduction</p> <p><b><u>LIGHT REFLECTION AND REFRACTION</u></b> Reflection of light by curved surfaces, Images formed by spherical mirrors, centre of curvature, Principle axis, Principal focus focal length, mirror formula (Derivation not required), magnification, uses of spherical mirrors, Refraction; Laws of refraction, refractive index. Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); magnification. Power of a lens, uses of spherical lenses</p>
May 2018	<p><b><u>LIFE PROCESSES</u></b> Transport and excretion in plants and animals.</p> <p><b><u>CHEMICAL REACTIONS</u></b> Types of chemical reactions : displacement, double displacement precipitation, neutralization, oxidation and reduction</p> <p><b><u>Human eye and colourful world</u></b> Power of accommodation, Defects of vision and their correction, Refraction of light through prism, dispersion of white light through prism, application of atmospheric refraction, scattering of light</p>
July 2018	<p><b><u>ACIDS, BASES AND SALTS</u></b> Their definitions in terms of furnishing of <math>H^+</math> and <math>OH^-</math> ions, General properties, examples and uses, concept of <math>p^H</math> scale (Definition relating to logarithm not required), importance of <math>p^H</math> in everyday life; preparation and uses of sodium Hydroxide, Bleaching Powder, Baking Soda, Washing Soda and Plaster of Paris.</p> <p><b><u>CONTROL AND CO-ORDINATION IN ANIMALS AND PLANTS</u></b></p>

	<p>Tropic movements in plants; Introduction of Plant hormones; Control and Co-ordination in animals; Nervous System; Voluntary, involuntary and reflexaction; Chemical Co-ordination; animal hormones.</p> <p><b><u>Electricity</u></b>  Electric current and circuit, electric potential and potential difference, ohms law, resistance in series and parallel, heating effect of electric current, practical applications of heating effect of electric current, electric power</p>
August 2018	<p><b>REPRODUCTION</b>  Reproduction in plants (asexual and sexual) reproductive health need and method of family planning. Safe sex vs HIV / AIDS. Child bearing and women’s health.</p> <p><b>METALS AND NON METALS</b>  Properties of metals and non metals : Reactivity series; formation and properties of ionic compounds</p> <p><b>Magnetic effects of current</b>  Magnetic field and field lines, magnetic field due to current carrying conductor, magnetic field field due to current in a solenoid, force on corrent carrying counductorin magnetic field, electric motor, electric generator, domestic electric current</p>
September	<b><u>TERM-1</u></b>
October	<p><b><u>Metals and non metals</u></b>  Basic metallurgical processes, corrosion and its prevention</p> <p><b><u>Carbon and its compound</u></b>  Bonding in carbon, Versatile nature of carbon, Saturated and unsaturated carbon, Homologous series, nomenclature of carbon compounds,chemical properties of carbon compounds.</p> <p><b>Heredity and Evolution</b>  Heredity; Mendel’s contribution – Laws of inheritance of traits: Sex determination: brief introduction; Basic concepts of evolution.</p> <p><b><u>Sources of energy</u></b>  Conventional and non conventional sources of energy, thermal power plant, various types of energy</p>
November 2018	<p><b><u>Management of Natural resources</u></b>  Need to manage our resources, Stake holders,Sustainable management,Dams,water harvesting, Coal and petroleum</p> <p><b><u>Our Environment</u></b>  Ecosystem, food chain and food web, ozone layer, effect on environment</p> <p><b><u>Carbon and its compound</u></b>  Ethanol, Ethanoic acid, Soap and detergent</p>

December	<b><u>Periodic classification of elements</u></b> Need for classification, Early attempts at classification of elements (Dobereiner's Traids, Newland's Law of Octaves, Mendeleev's Periodic Table), Modern Periodic table, gradation in properties, Valency, atomic number, metallic and non-metallic properties.
January 2019	REVISION, PRE-BOARD EXAMINATION
February 2019	REVISION

### **CLASS X : FOUNDATION OF INFORMATION TECHNOLOGY (FIT) (THEORY)**

MONTH	CONTENT
APRIL 2018 – MAY 2018	<b><u>Unit I: Basics of Information Technology</u></b> <ul style="list-style-type: none"> <li>• Internet: World Wide Web, Web servers, Web Clients, Web sites, Web Pages, Web Browsers, Blogs, News groups, HTML, Web address, E-mail address, URL, HTTP, FTP, downloading and uploading files from remote site;</li> <li>• Services available on Internet: Information Retrieval, Locating sites using search engines</li> <li>• and finding people on the net;</li> <li>• Web Services: Chat, email, Video Conferencing, e-Learning, e-Banking, e-Shopping, e-Reservation, e-Governance, e-Groups, SocialNetworking.</li> </ul>
July 2018	<b><u>Unit II: Information Processing Tools</u></b>

<p>– August 2018</p>	<p style="text-align: center;"><b>Office Tools</b></p> <ul style="list-style-type: none"> <li>• Database Management Tool: Basic Concepts and need for a database, Creating a database, DataTypes-Text, Number, Date, Time, Setting the Primary Key, Entering data into a database, Inserting and deleting Fields, Inserting and deleting Records, Field Size, Default Value, Creating Query using Design view.</li> </ul> <p><b><u>Information Representation Methods</u></b></p> <p><b><u>Hyper Text Markup Language</u></b></p> <ul style="list-style-type: none"> <li>▪ Introduction to Web Page Designing using HTML, Creating and saving an HTML document, accessing a web page using a web browser (Google Chrome, Internet Explorer, Mozilla Firefox, Opera, Apple Safari, Net scape Navigator);</li> <li>▪ Elements in HTML: Container and Empty elements, Designing web pages using the following elements:</li> <li>▪ HTML, HEAD, TITLE, BODY (Attributes: BACKGROUND, BGCOLOR, TEXT, LINK, ALINK, VLINK, LEFTMARGIN, TOPMARGIN), FONT(Attributes: COLOR, SIZE, FACE),</li> <li>▪ BASEFONT(Attributes: COLOR, SIZE, FACE), CENTER, BR (Break), HR(Horizontal Rule,</li> </ul>
<p>October 2018 - November 2018</p>	<p><b><u>Unit III: Societal Impacts of IT</u></b></p> <ul style="list-style-type: none"> <li>▪ Benefits of ICT in Education, Healthcare, Governance, Business, Plagiarism, Privacy,</li> <li>▪ Security and Integrity of Information; Intellectual Property Rights, Careers in IT; Design and manufacturing.</li> </ul>

<p>December 2018 - January 2019</p>	<p><b><u>Unit IV: IT Applications</u></b></p> <p>Students are suggested to work on the following areas using Word Processing Tool, Spreadsheet Tool and Presentation Tool.</p> <p><b><u>Domains:</u></b></p> <p><b><u>Multi Lingual Documentation:</u></b></p> <ul style="list-style-type: none"> <li>• Letter Writing - content, context, addressee, Mail-Merge Formal/Informal letter</li> <li>• Report Writing - content, presentation, context</li> <li>• Greeting Card - design, context, recipient</li> <li>• Poster Making - design, context, target group</li> </ul> <p><b><u>Presentation:</u></b></p> <ul style="list-style-type: none"> <li>• Product Advertisement</li> <li>• Science and Social Science topic from the course</li> <li>• Trends in Wireless Computing</li> </ul> <p><b><u>Analysis Reporting:</u></b></p> <ul style="list-style-type: none"> <li>• School/Class Result with student-wise and subject-wise marks</li> <li>• Cricket Score Record</li> <li>• Weather Forecasting Report</li> </ul>
<p>February 2019</p>	<p>EXAMS</p>



## MONTHLY SYLLABUS

SESSION-2017-18

CLASS-X

SUBJECT : SOCIAL SCIENCE

<b>MONTH</b>	<b>CONTENT</b>
April - May	<p><b><u>HISTORY</u></b></p> <p><b>Chapter 5-</b> The Age of Industrialisation: Industrial Revolution</p> <p>— before and after, Proto-industrialization and pace of industrial change, Life of workers, Industrialization in the colonies, Weavers in India, Early Entrepreneurs &amp; workers , The Peculiarities of Industrial Growth Market for Goods classes, workers and urban poor. Case Studies: London and Bombay in the nineteenth and twentieth century.</p> <p><b><u>(GEOGRAPHY)</u></b> Contemporary India - II</p> <p><b>Chapter 1-</b> Resources and Development:</p> <p>Meaning of resource, Types of Resources; Classification of resources, Sustainable Development, Resource planning —Why and how in India, land as a resource, Soil types and distribution; Changing land-use pattern; land Degradation, Soil Erosion and Conservation Measures, etc.</p> <p><b><u>DEMOCRATIC POLITICS</u></b></p> <p><b>Chapter 1&amp;2-</b>Power Sharing &amp; Federalism:</p>

Why and how is power shared in democracies? What is Federalism? How has federal division of power in India helped national unity? How does democracy accommodate different social groups? The relationship between social cleavages and political competition with reference to Indian situation. The centrality of power sharing in a democracy. Decentralization in India.

July	<p><b><u>GEOGRAPHY</u></b></p> <p><b>Chapter 3-</b> Water Resources: Sources, distribution, utilisation, multi-purpose projects, water scarcity, need for conservation and management, rainwater harvesting. Multi-purpose river projects and integrated water resources management.</p> <p><b>Chapter 4-</b> Agriculture: Types of farming, various farming methods, spatial distribution of major crops, cropping pattern, technological and institutional reforms; their impact; contribution of Agriculture to national economy, impact of globalisation on agriculture. Note: Content of pg no. 44-47 of</p> <p><b>DEMOCRETIC POLITICS</b></p> <p><b>Chapter 3&amp;4-</b>Democracy and Diversity &amp; Gender Religion and Caste: Differences, similarities, divisions. Politics of social divisions. Gender and politics? Religion, communalism and</p>
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August	<p>politics. Secular state, caste and ethnicity in politics.</p> <p><b>ECONOMICS</b></p> <p><b>Chapter 1-. Development:</b> The traditional notion of development; National Income and Per-capita Income. Growth of NI - critical appraisal of existing development indicators (PCI, IMR, SR and other income and health indicators) The need for health and educational development; Human Development Indicators .</p> <p><b>HISTORY</b></p>
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## **Chapter 7-** Print Culture and the Modern World:

The history of print in Europe. The growth of press in nineteenth century India. Relationship between print culture, public debate and politics. Society and print, Discuss the link between print culture and the circulation of ideas;

	<p><b>GEOGRAPHY-</b> Contemporary India- II</p> <p><b>Chapter 5-</b> Minerals and Energy Resources:</p> <p>Types of minerals, distribution (<b>Note: on map only</b>), use and economic importance of minerals, conservation, types of power resources: conventional and non- conventional, distribution and utilization, and conservation.</p> <p><b>ECONOMICS-</b></p> <p><b>Chapter 2-</b> Sectors of the Indian Economy:</p> <p>Sectors of Economic Activities; Historical change in sectors; Rising importance of tertiary sector; Employment Generation; Division of Sectors- Organized and Unorganized; Protective measures for unorganized sector workers.</p> <p><b>Suggested Activities / Instructions:</b></p>
September	<p>Visit to banks and money lenders / pawnbrokers and discuss various activities that you have observed in banks in the classroom. Participate in the meetings of Self Help Groups, which are engaged in micro credit schemes in the locality of learners and observe issues discussed.</p> <p><b>ECONOMICS-</b></p>

### **Chapter 3-. Money and Credit:**

Role of money in an economy: Historical origin; Formal and Informal financial institutions for Savings and Credit - General Introduction; formal institution such as a nationalized commercial bank and informal institutions; Local money lenders, landlords, self help groups, chit funds and private finance companies.

**(Note : Ch-3 will also be evaluated in theory)**

### **DEMOCRATIC POLITICS**

#### ~~Chapter 5-.Popular Struggles and Movements~~

**(Note : Ch-5 is to be done as project work only and will not be evaluated in theory)**

#### **Chapter 6 - Political Parties:**

Meaning, need and functions of political parties, What role do political parties play in competition and contestation?  
Introduction to major political parties in the country

October

Sub-unit 1.1 :Events and processes (Any two of the following themes)

#### **Chapter 2-. The Nationalist Movement in Indo - China:**

Factors Leading to Growth of Nationalism in Indo-China

French colonialism in Indo-China. Hygiene, disease and everyday resistance, The dilemma of colonial education. The second world war and the liberation struggle. America and the

second Indo-China war. The communist movement and Vietnamese nationalism,

## **GEOGRAPHY**

**Chapter 6-** Manufacturing Industries: Importance, types,

~~spatial distribution (Note: on map only ) and contribution of industries to the national economy, industrial pollution and degradation of environment, measures to control degradation.~~  
**Note :** Content mentioned on page no. 74-75 of NCERT, Geography Text book i.e. Aluminium Smelting, Chemical Industries, Fertilizer Industry, Cement Industry is **not required**  
**to be deliver in class room during instruction.**

November

## **HISTORY**

**Chapter 3-. Nationalism in India: (COMPULSARY CHAPTER)**

First world war, Khilafat, Non-Cooperation and Civil Disobedience Movement, Salt Satyagraha, Movements of peasants, workers, tribals. Activities of different political groups. The characteristics of Indian nationalism during Civil Disobedience Movement. The nature of the diverse social movements of the time. The writings and ideals of different political groups.

**Map work based on theme 3 only.**

**Chapter 7-** Life Lines of National Economy The importance of transport and communication in the ever shrinking world. Transport types - Road, Sea, Airways, Pipeline. The role of trade in the economic development of a country. Tourism as a trade. Map work

## **ECONOMICS-**

**Chapter 4-** Globalisation and the Indian Economy: What is Globalisation? Factors, WTO, Impact, Fair Globalization. How India is being globalised? Development Strategy prior to 1991.

Economic Reforms 1991; Strategies adopted in Reform measures, Production across countries, Foreign trade and Interaction of Markets Suggested Activities/Instructions Provide many examples of service sector activities. Use numerical

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examples, charts and photographs.

**Chapter 5-** Consumer Rights: How consumer is exploited (one or two simple case studies) factors causing exploitation of consumers; Rise of consumer awareness; how consumer should be in a market; role of government in consumer protection. Making the child aware of her rights and duties as a consumer; The legal measures available to protect from being exploited in markets.

**Suggested Activities / Instructions**

Collect logos of standards available for various goods and services. Visit a consumer court nearby and discuss in the class the proceedings; Collect stories of consumer exploitation and grievances from newspapers and consumer courts

December

**DEMOCRATIC POLITICS-**

**Chapter 7-** Outcomes of Democracy: Can or should democracy be judged by its outcomes? What outcomes can one reasonably expect of democracies? Does democracy in India meet these expectations? Evaluating Indian democracy on some key dimensions: development, security and dignity for the people. Understand the causes for continuation of democracy in India.

**Chapter 8-** Challenges to Democracy: What are the major challenges to democracy? How can democracy be reformed and deepened? Sources of strength and weaknesses of India democracy. What role can an ordinary citizen play in deepening democracy?

**January 2019 REVISION, PRE-BOARD EXAMINATION**

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**February 2019 REVISION**



**MONTHLY SYLLABUS**  
**SESSION-2018-19**  
**CLASS-X**  
**SUBJECT : MATHEMATICS**

MONTH	CONTENT
April 2018	<p><b><u>CHAPTER 1 : REAL NUMBERS</u></b>            Euclid’s division lemma, Fundamental Theorem of Arithmetic – statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of irrationality of <math>\sqrt{2}</math>, <math>\sqrt{3}</math>, <math>\sqrt{5}</math>. Decimal representation of rational numbers in terms of terminating / non-terminating recurring decimals.</p> <p><b><u>CHAPTER 2 : POLYNOMIALS</u></b>            Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials. Statement and simple problems on division algorithm for polynomials with real coefficients.</p> <p><b><u>CHAPTER 3 : PAIR OF LINEAR EQUATIONS IN TWO VARIABLES</u></b>            Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency.            Algebraic conditions for number of solutions. Solutions of a pair of linear equations in two variables algebraically – by substitution, by elimination and by cross multiplication method.</p>
May 2018	<p><b><u>CHAPTER 3: PAIR OF LINEAR EQUATIONS IN TWO VARIABLES</u></b>            Simple situational problems. Simple problems on equations reducible to linear equations.</p>

<p><b>July 2018</b></p>	<p><b><u>CHAPTER 4: QUADRATIC EQUATIONS</u></b></p> <p>Standard form of a quadratic equation <math>ax^2 + bx + c = 0</math>, (<math>a \neq 0</math>). Solutions of quadratic equations (only real roots) by factorization, by completing the square and by using quadratic formula. Relationship between discriminant and nature of roots. Situational problems based on quadratic equations related to day to day activities to be incorporated.</p> <p><b><u>CHAPTER 5: ARITHMETIC PROGRESSIONS</u></b></p> <p>Motivation for studying Arithmetic Progression, Derivation of the <math>n^{\text{th}}</math> term and sum of the first <math>n</math> terms of A.P. and their application in solving daily life problems.</p> <p><b><u>CHAPTER 7: COORDINATE GEOMETRY</u></b></p> <p>LINES (In two-dimensions)</p> <p>Concepts of co-ordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division). Area of a triangle.</p>
<p><b>August 2018</b></p>	<p><b><u>CHAPTER 6: TRIANGLES</u></b></p> <p>Definitions, examples, counter examples of similar triangles.</p> <p>(Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.</p> <p>(Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side.</p> <p>(Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.</p> <p>(Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal are the two triangles are similar.</p> <p>(Motivate) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.</p> <p>(Motivate) If a perpendicular is drawn for the vertex of the right angle of a right triangle to the hypotenuse, the triangles on each</p>

	<p>side of the perpendicular are similar to the whole triangle and to each other.</p> <p>(Prove) The ratio of the areas of two similar triangles is equal to the ratio of the squares of their corresponding sides.</p> <p>(Prove) In a right triangle, the square on the hypotenuse is equal to the sum of the squares on the other two sides.</p> <p>(Prove) In a triangle, if the square on one side is equal to sum of the squares on the other two sides, the angles opposite to the first side is a right angle.</p> <p><b><u>CHAPTER 14: STATISTICS</u></b></p> <p>Mean, median and mode of grouped data (bimodal situation to be avoided). Cumulative frequency graph.</p> <p><b><u>CHAPTER 15: PROBABILITY</u></b></p> <p>Classical definition of probability. Simple problems on single events (not using set notation).</p>
<p><b>September 2018</b></p>	<p><b><u>CHAPTER 10: CIRCLES</u></b></p> <p>Tangent to a circle at point of contact</p> <p>(Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.</p> <p>(Prove) The lengths of tangents drawn from an external point to a circle are equal.</p>
	<p>TERM-1</p>
<p><b>October 2018</b></p>	<p><b><u>CHAPTER 8: INTRODUCTION TO TRIGONOMETRY</u></b></p> <p>Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at <math>0^\circ</math> and <math>90^\circ</math> Values (with proofs) of the trigonometric ratios of <math>30^\circ</math>, <math>45^\circ</math> and <math>60^\circ</math>. Relationships between the ratios.</p> <p>Proof and applications of the identity <math>\sin^2 A + \cos^2 A = 1</math>. Only</p>

	<p>simple identities to be given. Trigonometric ratios of complementary angles.</p> <p><b><u>CHAPTER 9: SOME APPLICATIONS OF TRIGONOMETRY</u></b></p> <p>Heights and distances : Angle of elevation, Angle of Depression. Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only <math>30^{\circ}</math>, <math>45^{\circ}</math>, <math>60^{\circ}</math></p> <p><b><u>CHAPTER 11: CONSTRUCTIONS</u></b></p> <p>Division of a line segment in a given ratio (internally). Tangents to a circle from a point outside it. Construction of a triangle similar to a given triangle.</p>
November 2018	<p><b><u>CHAPTER 12: AREAS RELATED TO CIRCLES</u></b></p> <p>Motivate the area of a circle; area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of <math>60^{\circ}</math>, <math>90^{\circ}</math> and <math>120^{\circ}</math> only. Plane figures involving triangles, simple quadrilaterals and circle should be taken.)</p> <p><b><u>CHAPTER 13: SURFACE AREAS AND VOLUMES</u></b></p> <p>Surfaces areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders / cones. Frustum of a cone. Problems involving converting one type of metallic solid into another and other mixed problems. (Problems with combination of not more than two different solids be taken.)</p>
December 2018	<b>REVISION</b>
January 2019	<b>REVISION, PRE-BOARD EXAMINATION</b>

**February 2019 REVISION**