DOON PUBLIC SCHOOL-LADWA
SYLLABUS FOR THE SESSION 2019-20
CLASS-12th

ENGLISH

Books Name: 1. Book-1 Flamingo   Book-2 Vistas   Novel: 1. The Invisible man or Silas Marner

APRIL	May	JULY

Chapter-1 The last lesson
Chapter-2 Lost spring
Poem-1 My mother at sixty-six
Chapter-1 The tiger king
I Factual passage   II Descriptive passages   III Literary passages
	Chapter-3 Deep Water
	Poem-2 An Elementary School classroom in a slum
	Chapter-2 The Enemy
	   1. Advertisements & notices
	   2. Formal and informal invitations and replies
		Chapter-4 The Rattrap
		Poem-3 Keeping Quiet
		Chapter-3 Should wizard hit mommy?
		   1. Business or official letters
		   2. Letters to the Editor

AUGUST	**SEPTEMBER**	**OCTOBER**

Chapter-5 Indigo
Poem-4 A thing of beauty
Chapter-4 On the face of It
   3. Letters of application
Applications for jobs (with CV)
Orders, Complaints, asking for & giving information
	REVISION AND HALF YEARLY EXAMS	Chapter-6 Going places
		Poem-5 Aunt Jennifer's Tigers
		Chapter-5 Evans tries an O-level
		Very long type writing tasks
		   1. Article 3. Speech
		   2. Debate 4. Report

NOVEMBER	**DECEMBER**	**JANUARY/FEBRUARY**
Chapter-6 memories of childhood Novels: 1. The invisible man or 2. Silas Marner Novels: 1. The invisible man or 2. Silas Marner	Pre-board exam	Revision of annual Exams
		MARCH
		ANNUAL EXAMS

HINDI

Books Name: आरोह भाग-1 and वितान

APRIL	May	JULY
आरोह भाग-1 – आत्म परिचय, एक गीत। पतंग। भक्तिन।	कविता के बहाने। बात सीधी थी पर। बाजार दर्शन।	कैमरे में बंद अपाहिज। काले मेघा पानी दे। वितान--सिल्वर वेडिंग।
AUGUST	**OCTOBER**	**NOVEMBER**
सहर्ष स्वीकारा। उषा। पहलवान की ढोलक। व्याकरण --पत्र, फीचर। **SEPTEMBER** बादल राग। चार्ली चैपलिन चानी। हम सब। वितान--अतीत में दबे पाँव।	कवितावली,लक्ष्मण मूर्छा और राम का विलाप। नमक। व्याकरण --निबंध, आलेख।	छोटा मेरा खेत। बगुलों के पंख। शिरीष के फूल। वितान--डायरी के पन्ने।
DECEMBER	**JANUARY**	**FEBRUARY**
रुबाइयाँ, ग़ज़ल। श्रम विभाजन और जाति प्रथा। मेरी कल्पना का आदर्श समाज। व्याकरण --अभिव्यक्ति और माध्यम।	**Revision**	**Revision**
		MARCH
		ANNUAL EXAMS

MATH

Book name: Elements of Mathematics

APRIL	May	JULY
Chapter-3 Matrices Chapter-4 Determinants	Chapter-5 Continuity and Differentiability	Chapter-6 Applications of Derivatives Chapter-2 Inversed Function
AUGUST	**OCTOBER**	**NOVEMBER**
Chapter-7 Integrals Chapter-12 Linear Programming	Chapter-8 Applications of the integrals	Chapter-9 Differential Equations Chapter-10 Vectors
SEPTEMBER		
REVISION AND HALF YEARLY EXAMS		
DECEMBER	**JANUARY**	**FEBRUARRY**
Chapter-11 Three Dimensional geometry Chapter-13 Probability Chapter-1 Relations and Functioning	**Revision**	**Revision**
		MARCH
		ANNUAL EXAMS

HIstory

Book Name: Themes in Indian History-I

APRIL	May	JULY
Ch-1 The story of first cities: Harappan Archaeology Ch-2 Political and Economic history: How inscriptions tell a story Ch-3 Mahabharata: issues in social history, including caste, class, kinship and gender	Ch-4 A history of Buddhism: Sanchi Stupa Ch-5 Agrarian relations: The Ain-i-Akbari	Ch-6 The Mughal courts : Reconstructing histories through Chronicles Ch-7 New Architecture: Hampi
AUGUST	**SEPTEMBER**	**OCTOBER**
Ch-8 Religious histories: The Bhakti-Sufi tradition Ch-9 Medieval society through traveller's account	Ch-10 Colonialism and rural society: Evidence from official reports	Ch-12 Colonialism and Indian towns: Town plans and Municipal reports
NOVEMBER	**DECEMBER**	**JANUARY/ FEBRUARY**
Ch-13 Mahatma through contemporary eyes	Ch-14 Partition through oral sources Ch-15 The making of constitution	**Revision**
		MARCH
		ANNUAL EXAMS

Sociology

Book Name: 1. Indian Society

2. Social change and development in India

APRIL	May	JULY
Unit-1(Chapter-1) Indian Society: An Introduction Unit-2(Chapter-1) Structural Change	Unit-1(Chapter-2) The Demographic Structure of the Indian society Unit-2(Chapter-2) Cultural Change	Unit-1(Chapter-3) Social Institutions: Continuity and Change Unit-2(Chapter-3) The story of Indian demography
AUGUST	**SEPTEMBER**	**OCTOBER**
Unit-1(Chapter-4) The market as a Social Institution Unit-2(Chapter-4) Change and development in Industrial	Unit-1(Chapter-5) Patterns of social inequality and exclusion Unit-2(Chapter-5) Globalization and Communication	Unit-1(Chapter-6) The Challenges of Cultural Diversity Unit-2(Chapter-6) Mass Media and Communication
November	**DECEMBER**	**JANUARY/ FEBRUARY**
Unit-2(Chapter-7) Mass Media and Communication	Unit-1(Chapter-8) Suggestions for project work Unit-2(Chapter-8) Social Movements	**REVISION**
		MARCH
		ANNUAL EXAMS

BIOLOGY

APRIL	May	JULY	AUGUST	SEPTEMBER
Chapter-1 Reproduction in Organisms Chapter-2 Sexual Reproduction in Flowering Plants	Chapter-3 Human Reproduction Chapter-4 Reproductive Health	Chapter-5 Principles of Inheritance and Variation Chapter-6 Molecular basis of Inheritance	Chapter-7 Evolution Chapter-8 Human Health and Diseases	Chapter-9 Strategies for Enhancement in food Production Chapter-10 Microbes in Human Welfare
OCTOBER	**NOVEMBER**	**DECEMBER**	**JANUARY/ FEBRUARY**	**MARCH**
Chapter-11 Biotechnology: Principles and Processes Chapter-12 Biotechnology and its Application	Chapter-13 Organisms and Population Chapter-14 Ecosystem	Chapter-15 Biodiversity and Conservation Chapter-16 Environmental Issues	**REVISION**	**ANNUAL EXAMS**

BUSINESS STUDY

APRIL	May	JULY	AUGUST	SEPTEMBER
Chapter-1.1 Management and An Introduction Chapter-1.2 Management as Science, Art and Profession Chapter-1.3 Levels and Functions of Management Chapter-1.4 Coordination: Concept and Importance	Chapter-2.1 Principles of Management Concept and Significance Chapter-2.2 Scientific Management Principal and Techniques Chapter-3.1 Business Environment: Importance and Dimension Chapter-4.1 Planning and types of Plans	Chapter-5.1 Organizing: Importance and Process Chapter-5.2 Organization Structure: Functional and Divisional Chapter-5.3 Delegation and Decentralization concept and Importance Chapter-6.1 Staffing: Concept and Importance	Chapter-6.2 Recruitment: Concept and Importance Chapter-6.3 Selection: Concept and process Chapter-6.4 Training and Development: Concept and Importance Chapter-7.1 Directing: Importance and Elements Chapter-7.2 Supervision: Concept and Functions	Chapter-7.3 Motivation: Financial and Non-financial Incentives Chapter-7.4 Leadership: Concept and Styles Chapter-7.5 Communication: Concept, types and barriers

OCTOBER	NOVEMBER	DECEMBER	JANUARY/ FEBRUARY	MARCH
Chapter-8.1 Controlling: Concept and process Chapter-9.1 Financial Management, Financial Decisions and Financial Planning Chapter-9.2 Capital Structure: Concept and Determinants Chapter-9.3 Fixed and working capital concept and determinants	Chapter-10.1 Financial Market: Concept and Types Chapter-10.2 Trading procedure on a stock exchange and SEBI Chapter-11.1 Marketing, Marketing Management and Marketing mix	Chapter-11.2 Advertising: Concept, Role and Objections Chapter-11.3 Personal selling: Concept and qualities Chapter-11.4 Sales promotion and Pubic relations Chapter-12.1 Consumer protection: Importance and ways	**REVISION**	**ANNUAL EXAMS**

PHYSICAL EDUCATION

MONTH	Activity	MONTH	Activity
April	Chapter-1 Planning in sports Chapter-2 Sports and nutrition	October	Chapter-7 Test and Measurement in sports Chapter-8 Physiology and sports
May	Chapter-3 Yoga and life style	November	Chapter-9 Sports medicines Chapter-10 Kinesiology, biomechanics and sports
July	Chapter-4 Physical education and sports for CWSN Chapter-5 Children and sports	December	Chapter-11 Physiology and sports Chapter-12 Training in sports
August	Chapter-6	JANUARY/FEBRUARY/MARCH	REVISION/ANNUAL EXAM

PHYSICS

APRIL	May	JULY
Unit I: Electrostatics **Chapter-1: Electric Charges and Fields** Electric Charges; Conservation of charge, Coulomb's law-force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	Unit II: Current Electricity **Chapter-3: Current Electricity** Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity. Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors; temperature dependence of resistance. Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel. Kirchhoff's laws and simple applications. Wheatstone bridge, metre bridge. Potentiometer - principle and its applications to measure potential difference and for comparing emf	**Chapter-5: Magnetism and Matter** Current loop as a magnetic dipole and its magnetic dipole moment. Magnetic dipole moment of a revolving electron. Magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis. Torque on a magnetic dipole (bar magnet) in a uniform magnetic field; bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements. Para-, dia- and ferro - magnetic substances, with examples. Electromagnets and factors affecting their strengths. Permanent magnets. Unit IV: Electromagnetic Induction and Alternating Currents

Chapter-2: Electrostatic Potential and Capacitance Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarisation, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor.	of two cells; measurement of internal resistance of a cell. Unit III: Magnetic Effects of Current and Magnetism **Chapter-4: Moving Charges and Magnetism** Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight and toroidal solenoids, Force on a moving charge in uniform magnetic and electric fields. Cyclotron. Force on a current-carrying conductor in a uniform magnetic field. Force between two parallel current-carrying conductors-definition of ampere. Torque experienced by a current loop in uniform magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.	**Chapter-6: Electromagnetic Induction** Electromagnetic induction; Faraday's laws, induced emf and current; Lenz's Law, Eddy currents. Self and mutual induction. **Chapter-7: Alternating Current** Alternating currents, peak and rms value of alternating current/voltage; reactance and impedance; LC oscillations (qualitative treatment only), LCR series circuit, resonance; power in AC circuits, wattless current. AC generator and transformer.

AUGUST	SEPTEMBER	OCTOBER
Unit V: Electromagnetic waves **Chapter-8: Electromagnetic Waves** Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative ideas only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses. Unit VI: Optics **Chapter-9: Ray Optics and Optical Instruments** **Ray Optics::** Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection and its applications, optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lensmaker's formula. Magnification, power of a lens, combination of thin lenses in contact combination of a lens and a mirror. Refraction and dispersion of light through a prism. Scattering of light - blue colour of sky and reddish apprearance of the sun at sunrise and sunset. **Optical instruments:** Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.		**Chapter-10: Wave Optics** **Wave optics:** Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum. Resolving power of microscopes and astronomical telescopes. Polarisation, plane polarised light Brewster's law, uses of plane polarised light and Polaroids. Unit VII: Dual Nature of Matter and Radiation **Chapter-11: Dual Nature of Radiation and Matter** Dual nature of radiation. Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Matter waves-wave nature of particles, de Broglie relation. Davisson-Germer experiment (experimental details should be omitted; only conclusion should be explained). Unit VIII: Atoms & Nuclei **Chapter-12: Atoms** Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum. **Chapter-13: Nuclei** Composition and size of nucleus, atomic masses, isotopes, isobars; isotones. Radioactivityalpha, beta and gamma particles/rays and their properties; radioactive decay law. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.

NOVEMBER	Practicals	JANUARY/ FEBRUARY/

Unit IX: Electronic Devices **Chapter-14: Semiconductor Electronics: Materials, Devices and Simple Circuits** Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier; Special purpose p-n junction diodes: LED, photodiode, solar cell and Zener diode and their characteristics, zener diode as a voltage regulator. Junction transistor, transistor action, characteristics of a transistor and transistor as an amplifier (common emitter configuration), basic idea of analog and digital signals, Logic gates (OR, AND, NOT, NAND and NOR). Unit X: Communication Systems **Chapter-15: Communication Systems** Elements of a communication system (block diagram only); bandwidth of signals (speech, TV and digital data); bandwidth of transmission medium. Propagation of electromagnetic waves in the atmosphere, sky and space wave propagation, satellite communication. Need for modulation, amplitude modulation.	**PRACTICALS (ANY 15 from both sections)** SECTION–A 1. To determine resistance per cm of a given wire by plotting a graph for potential difference versus current. 2. To find resistance of a given wire using metre bridge and hence determine the resistivity (specific resistance) of its material. 3. To verify the laws of combination (series) of resistances using a metre bridge. 4. To verify the laws of combination (parallel) of resistances using a metre bridge. 5. To compare the EMF of two given primary cells using potentiometer 6. To determine the internal resistance of given primary cell using potentiometer. 7. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit. 8. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same. 9. To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same. 10. To find the frequency of AC mains with a sonometer. SECTION–B 1. To find the value of v for different values of u in case of a concave mirror and to find the focal length. 2. To find the focal length of a convex mirror, using a convex lens. 3. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v. 4. To find the focal length of a concave lens, using a convex lens. 5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. 6. To determine refractive index of a glass slab using a travelling microscope. 7. To find refractive index of a liquid by using convex lens and plane mirror. 8. To draw the I-V characteristic curve for a p-n junction in forward bias and reverse bias. 9. To draw the characteristic curve of a zener diode and to determine its reverse break down voltage. 10. To study the characteristic of a common - emitter npn or pnp transistor and to find out the values of current and voltage gains.	**Revision/Annual Exams**

ECONOMICS

APRIL	May	JULY
Indian Economic Development Chapter-1 Indian economy on the Eve of Independence Chapter-2 Five years plan in India: Goals and Achievements Chapter-3 Features, problems and policies of agriculture Macroeconomics Chapter-1 Introduction	Macroeconomics Chapter-2 Some basic concepts of Macroeconomics Chapter-5 Money Chapter-6 Banking Indian Economic Development Chapter-4 Strategy of Industrial growth (1947-1990)	Indian Economic Development Chapter-5 Indian foreign trade Chapter-6 Economic reforms since 1991 or new economic policy Chapter-7 Poverty
AUGUST	**SEPTEMBER**	**OCTOBER**
Macroeconomics Chapter-7 Aggregate demand, aggregate supply, and related concepts Chapter-8 Short run equilibrium output Chapter-9 Problem of deficient Demand and Excess demand	Indian Economic Development Chapter-8 Human capital formation in India Chapter-9 Rural development Chapter-10 Employment and unemployment Chapter-11 Infrastructure	Macroeconomics Chapter-10 Government budget and the economy Chapter-11 Foreign exchange rate Chapter-12 Balance of payments Indian Economic Development Chapter-12 Environment and sustainable development
NOVEMBER	**DECEMBER**	**JANUARY/ FEBRUARY/ MARCH**
Macroeconomics Chapter-3 National Income and related Aggregates Chapter-4 Methods of calculating National Income	Indian Economic Development Chapter-13 Development, Experience of India, Pakistan and China	**Revision/Annual Exams**

ACCOUNTS

APRIL	May	JULY
Chapter-1 Accounting for Partnership Firms-Fundamental Chapter-2 Change the Profit sharing ratio among the existing partner	Chapter-3 Admission of Partner	Chapter-4 Retirement or Death of a Partner Chapter-5 Dissolution of a Partnership Firm
AUGUST	**SEPTEMBER**	**OCTOBER**
Chapter-1 Financial statements of Companies Chapter-2 Financial Statement Analysis Chapter-3 Tools for Financial Analysis Chapter-4 Common size statements	Chapter-5 Accounting Ratios Chapter-6 Cash Flow statements	Chapter-1 Not Profit Organization Chapter-2 issue of Shares
NOVEMBER	**DECEMBER**	**JANUARY/ FEBRUARY/ MARCH**
Chapter-3 Issue of Debentures	Chapter-4 Redemption of Debentures	**Revision/Annual/Exams**

CHEMISTRY

APRIL	May	JULY
Ch-1 The solid state Topics: Classification of solids based on different binding forces Molecular, ionic, covalent Unit cell, pack up in solids Point defects Electrical and magnetic properties Ch-2 Solutions Topics: Types of solutions Concentration of solutions Solid solids Colligative properties Raoult's Law Osmotic pressure	Ch-2 Solutions Ch-3 Electrochemistry Topics: Redox reactions EMF of cell Fuel cells Corrosion Standard Electrode potential Laws of electrolysis	Ch-4 Chemical Kinetics Topics: Rate of reaction Temperature Catalysts Activation energy Arrhenius equation Concept of collision theory Ch-5 Surface Chemistry Topics: Adsorption Catalysis Copulation Emulsion and its types Electrophoresis Emulsions and its types Factors affecting adsorption of gases on solids

AUGUST	SEPTEMBER	OCTOBER
Ch-6 General principles and processes of Isolation of elements Topics: Principles and methods of extraction and concentration Oxidation, reduction Ch-7 P-block elements Topics: General introduction Electronic configuration Occurrence and oxidation states Oxides of nitrogen Classification of oxides, Oxidation states, trends in physical and chemical properties	Ch-8 The d & f-block elements Topics : Oxidation states Color and magnetic properties Characteristics of transition metals General electronic configuration Ch-9 Coordination compounds Topics: VBT & CFT Bonding Werner's theory Importance of coordination compound	Ch-10 Haloalkanes and Haloarernes Nomenclature, nature of C-X bond, physical and chemical properties, optical rotation Substitution, DDT, freons
NOVEMBER	**DECEMBER**	**JANUARY**
Ch-11 Alcohols, Phenols and Ethers Topics: Nomenclature, methods of preparation, physical and chemical properties, Acidic nature of phenol, uses of phenols Ch-12 Aldehydes, Ketones and Carboxylic acids Topics: Nature of carbonyl group, methods of preparation, physical and chemical properties, Acidic nature, uses	Ch-13 Amines Topics: Nomenclature, classification, structure, methods of preparation, identification of primary, secondary and tertiary amines, chemical reactions and importance in synthetic organic chemistry Ch-14 Biomolecules Topics: Classification, elementary idea of X-amino acids, peptide, bond, structure of proteins, Enzymes, hormones, Classification and function of nucleic acids: DNA & RNA	Ch-15 Polymers Topics: Classification, natural and synthetic methods of polymerization, some important polymers like polythene, nylon, polyesters, rubber Ch-16 Chemistry and everyday life Topics: Chemicals in medicines, antiseptics, disinfectants, antimicrobials Chemical in foods: preservatives, artificial sweetening agents, antioxidants Cleansing agents: Soaps and detergents, cleaning action
		FEBRUARY/ MARCH
		Revision/Annual Exams