

Syllabus for ALOHA GAT 2018

Class : 8th

Subject : Science

Physics		
S. No.	Unit	Topics to be covered
01	Light	<ul style="list-style-type: none">• Definition of light• Reflection and laws of reflection (Activity based)• Regular and diffused reflection,• Human eye, (brief)• Care of eyes,• Braille System• Dispersion spectrum
02	Friction	<ul style="list-style-type: none">• Friction: Definition, And activity to show friction,• Types of friction, laws of limiting friction,• Causes of friction, examples in our daily life, friction due to liquids and gases, (Water-air), friction is necessary evil,• Disadvantages of friction• Methods to reduce friction (lubrication, Soap, solution, polishing etc.)• Use of ball bearing
03	Force & Pressure	<ul style="list-style-type: none">• Force and its applications in daily life• Effects of force(motion/shape)• Contact and noncontact forces• Pressure• Atmospheric pressure• Liquids and gases exert pressure
Chemistry		
01	Combustion & Flame	<ul style="list-style-type: none">• Combustion• Necessities for combustion and types• Calorific value and ignition temperature.• Fuel and its types• CNG as a fuel,• Characteristics of a good fuel.• Harmful effects of fuel burning.• Global warming• Flame-its zones,• Flammable and inflammable substances• Extinguishing of fire and extinguishers• Acid rain
02	Chemical effects of electric current	<ul style="list-style-type: none">• Electrolyte and non- electrolyte• Conduction of current through liquids• Conductors and insulators• Chemical effects of current

		<ul style="list-style-type: none"> • LEDS, Electrodes, Anode ,Cathode, Ionization, • Electroplating, process of Electroplating
Biology		
01	The Cell	<ul style="list-style-type: none"> • Cell structure, parts of a typical Plant/Animal cell as viewed through microscope, and their functions. • Distinguish between plant and animal cell. • Diversity in cell and common features in cell.
02	Conservation Of Plants & Animals	<ul style="list-style-type: none"> • Deforestation, its causes. • Effects of deforestation- (soil erosion, desertification). • Conservation of forests, wild life. • Biosphere reserves-its flora and fauna. • Wild life sanctuaries of J & K. • National parks of J & K. • Recycling of paper • Endangered species and effect on J &K . • Reforestation

Subject : Mathematics

S. No.	Unit	Topics to be covered
01	Linear Equations in one variable	<ul style="list-style-type: none"> • Concept of variable and coefficient. • Solve the equation with Linear expression on one side and numbers on other side. • Solve equation with Variables on both the sides. • Frame the linear equation from the given situation and be able to use the linear equations in day to day problems. • Reduce the equations to simpler and linear form. • Solves the puzzles and daily life problems using variables
02	Comparing Quantities	<ul style="list-style-type: none"> • Compare quantities in terms of their ratios and percentages. • Conceptual understanding of percentage profit, percentage loss, discount, VAT. • Calculate cost price, selling price, profit, loss, discount, VAT when other parameters are given. • Conceptual understanding of Compound Interest and be able to calculate it using formula and without using formula. • Find the solution of the life related word problems.
03	Factorization	<ul style="list-style-type: none"> • Concept of Factorization. • Factorize algebraic expressions by different Methods. (Using identities, splitting middle term and by regrouping the terms) • Divide a polynomial by another polynomial using division algorithm and factorization method.
04	Practical Geometry	<ul style="list-style-type: none"> • Conceptual understanding of polygons (convex and concave.) and their classification • Conceptual understanding of Angle-sum property of polygons and solves the problems based on angle sum property. • Conceptual understanding of different kinds of Quadrilaterals (trapeziums, kite, parallelogram, rhombus rectangle, square)

		<ul style="list-style-type: none"> • Importance of quadrilaterals in the environment. • Construct unique quadrilaterals within the different given measurements. • Understanding of the situations wherein the quadrilaterals can and cannot be constructed.
05	Mensuration	<ul style="list-style-type: none"> • Conceptual understanding of formulas used to find out the area of different figures • Finding the area of different type and size of Geometric shapes (rectangle, square, triangle, parallelogram, circle, trapezium, rhombus and other polygons). • Conceptual understanding of surface area of cube, cuboid and cylinder and their calculations. • Conceptual understanding of volume of cube, cuboid and cylinder and their calculation.

Subject : Social Studies

History		
S. No.	Unit	Topics to be covered
01	Rebellion Of 1857 (When People Rebell)	<ul style="list-style-type: none"> • How revolts originate & Spread • British policies & reaction of people • Changes in the colonial rule after 1857 • Use of vernacular & British accounts to understand the rebellion.
02	Education In British Rule (Civilizing The Native)	<ul style="list-style-type: none"> • History of education in India • Politics of education is linked to the question of power & cultural identity.
03	Women, Caste And Reform	<ul style="list-style-type: none"> • Condition of women & struggle of reformers to improve their condition. • New laws of affecting women's lives • Use of autobiographies ,biographies, other literature to reconstruct history of woman & tirade against cast system.
Civics		
01	The Indian Constitution	<ul style="list-style-type: none"> • Making of Indian Constitution • Preamble
02	The United Nations	<ul style="list-style-type: none"> • Need for founding UNO • UNO-Its charter/aims, its principles, its organs & their functions, • Achievements of united Nation • India & the UN, Role of specialized agencies of UN in India.
Geography		
01	Minerals & Power Resources	<ul style="list-style-type: none"> • Minerals- Definition, importance, Distribution in different continents in India & in J & K; Uses & Conservation • Power Resources: Importance, different categories under conventional & Nonconventional • On outline map of India, Identify, different states of India.

02	Industries	<ul style="list-style-type: none"> • Industry- Definition, Classification, Factors affecting location, Industrial system, Industrial regions, Industrial Disaster, Distribution of major industries, Factors required for industrial development, • Map skill- On Outline map of world identify different continents. • List small & large scale industries located in J & K.
03	Human Resources	<ul style="list-style-type: none"> • Human Resources- Meaning, Factors affecting growth & Distribution • Population- Distribution, Density: Population Change, Patterns of population, Population composition.