

NDA SYLLABUS

NDA syllabus is broadly divided into two sections – Mathematics and General Ability Test (GAT). The question paper of GAT will have total 150 questions while the Mathematics section will have 120 questions. To solve each section, candidates will be given 2 ½ hours.

Aspirants preparing for NDA exam can check below the syllabus –

Syllabus for Mathematics

NDA syllabus for Mathematics comprises the topics which candidates have studied in Class 12. Total marks allotted for this section is 300. This section basically test a candidates calculative skills. NDA syllabus for Mathematics is given below -

NDA syllabus for Mathematics	
Algebra	Matrices and Determinants
Trigonometry	Analytical Geometry of Two and Three Dimensions
Differential Calculus	Integral Calculus and Differential Equations
Vector Algebra	Statistics and Probability

Syllabus for General Ability Test (GAT)

The GAT comprises two parts – English and General Knowledge. The question paper of English assess a candidate's knowledge of basic grammar and vocabulary. The question paper on General Knowledge covers current affairs, questions from Physics, Chemistry, General Science, Social Studies, Geography and Current Events. NDA syllabus for GAT is given below.

Physics

Physical Properties and States of Matter	Modes of transference of Heat
Mass	Sound waves and their properties
Weight	Simple musical instruments
Volume	Rectilinear propagation of Light
Density and Specific Gravity	Reflection and refraction
Principle of Archimedes	Spherical mirrors and Lenses
Pressure Barometer	Human Eye
Motion of objects	Natural and Artificial Magnets
Velocity and Acceleration	Properties of a Magnet
Newton's Laws of Motion	Earth as a Magnet
Force and Momentum	Static and Current Electricity
Parallelogram of Forces	Conductors and Non-conductors
Stability and Equilibrium of bodies	Ohm's Law
Gravitation	Simple Electrical Circuits
Elementary ideas of work	Heating, Lighting and Magnetic effects of Current
Power and Energy	Measurement of Electrical Power
Effects of Heat	Primary and Secondary Cells
Measurement of Temperature and Heat	Use of X-Rays
	General Principles in the working of the following: Simple Pendulum, Simple Pulleys, Siphon, Levers, Balloon, Pumps, Hydrometer, Pressure Cooker, Thermos Flask, Gramophone, Telegraphs, Telephone, Periscope, Telescope, Microscope, Mariner's Compass; Lightning Conductors, Safety Fuses.
Chemistry	

Preparation and Properties of Hydrogen, Oxygen, Nitrogen and Carbon Dioxide, Oxidation and Reduction. Acids, bases and salts. Carbon— different forms	Physical and Chemical Changes
Fertilizers—Natural and Artificial	Elements
Material used in the preparation of substances like Soap, Glass, Ink, Paper, Cement, Paints, Safety Matches and Gunpowder	Mixtures and Compounds
Elementary ideas about the structure of Atom	Symbols, Formulae and simple Chemical Equation
Atomic Equivalent and Molecular Weights	Law of Chemical Combination (excluding problems)
Valency	Properties of Air and Water
General Science	
Common Epidemics, their causes and prevention	Difference between the living and non-living
Food—Source of Energy for man	Basis of Life—Cells, Protoplasm and Tissues
Constituents of food	Growth and Reproduction in Plants and Animals
Balanced Diet	Elementary knowledge of Human Body and its important organs
The Solar System— Meteors and Comets, Eclipses. Achievements of Eminent Scientists	

History	
Forces shaping the modern world; Renaissance	A broad survey of Indian History, with emphasis on Culture and Civilisation
Exploration and Discovery; War of American Independence, French Revolution, Industrial Revolution and Russian Revolution	Freedom Movement in India
Impact of Science and Technology on Society	Elementary study of Indian Constitution and Administration
Concept of one World	Elementary knowledge of Five Year Plans of India
United Nations, Panchsheel, Democracy, Socialism and Communism	Panchayati Raj
Role of India in the present world	Co-operatives and Community Development
A broad survey of Indian History, with emphasis on Culture and Civilisation	Bhoodan, Sarvodaya, National Integration and Welfare State
	Basic Teachings of Mahatma Gandhi
Geography	
The Earth, its shape and size	Ocean Currents and Tides Atmosphere and its composition
Latitudes and Longitudes	Temperature and Atmospheric Pressure, Planetary Winds, Cyclones and Anticyclones; Humidity; Condensation and Precipitation
Concept of time	Types of Climate
International Date Line	Major Natural regions of the World

Movements of Earth and their effects	Regional Geography of India—Climate, Natural vegetation. Mineral and Power resources; location and distribution of agricultural and Industrial activities
Origin of Earth. Rocks and their classification	Important Sea ports and main sea, land and air routes of India
Weathering—Mechanical and Chemical, Earthquakes and Volcanoes	Main items of Imports and Exports of India
Current Affairs	
Knowledge of Important events that have happened in India in the recent years	Prominent personalities—both Indian and International including those connected with cultural activities and sports
Current important world events	-

Also check details of [NDA exam pattern](#) and download previous years' [NDA question papers](#)'.