

## UPSC NDA-I 2017 Exam Paper 2 Syllabus

**PAPER-II**  
**GENERAL ABILITY TEST**  
(Code No. 02)  
(Maximum Marks – 600)

**Part 'A' – ENGLISH** (Maximum Marks – 200)

The question paper in English will be designed to test the candidate's understanding of English and workman like use of words. The syllabus covers various aspects like : Grammar and usage, vocabulary, comprehension and cohesion in extended text to test the candidate's proficiency in English.

**Part 'B' – GENERAL KNOWLEDGE** (Maximum Marks – 400)

The question paper on General Knowledge will broadly cover the subjects : Physics, Chemistry, General Science, Social Studies, Geography and Current Events.

- The syllabus given below is designed to indicate the scope of these subjects included in this paper. The topics mentioned are not to be regarded as exhaustive and questions on topics of similar nature not specifically

mentioned in the syllabus may also be asked. Candidate's answers are expected to show their knowledge and intelligent understanding of the subject.

## UPSC NDA-I 2017 Exam Paper 2 Syllabus

### Section 'A' (Physics)

Physical Properties and States of Matter, Mass, Weight, Volume, Density and Specific Gravity, Principle of Archimedes, Pressure Barometer.

Motion of objects, Velocity and Acceleration, Newton's Laws of Motion, Force and Momentum, Parallelogram of Forces, Stability and Equilibrium of bodies, Gravitation, elementary ideas of work, Power and Energy. Effects of Heat, Measurement of Temperature and Heat, change of State and Latent Heat, Modes of transference of Heat. Sound waves and their properties, Simple musical instruments. Rectilinear propagation of Light, Reflection and refraction. Spherical mirrors and Lenses, Human Eye.

Natural and Artificial Magnets, Properties of a Magnet, Earth as a Magnet.

Static and Current Electricity, conductors and Non-conductors, Ohm's Law, Simple Electrical Circuits, Heating, Lighting and Magnetic effects of Current, Measurement of Electrical Power, Primary and Secondary Cells, 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.

### Section 'B' (Chemistry)

Physical and Chemical changes. Elements, Mixtures and Compounds, Symbols, Formulae and simple Chemical Equations, Law of Chemical Combination (excluding problems). Properties of Air and Water.

Preparation and Properties of Hydrogen, Oxygen, Nitrogen and Carbondioxide, Oxidation and Reduction. Acids, bases and salts. Carbon—different forms. Fertilizers—Natural and Artificial. Material used in the preparation of substances like Soap, Glass, Ink, Paper, Cement, Paints, Safety Matches and Gun-Powder. Elementary ideas about the structure of Atom, Atomic Equivalent and Molecular Weights, Valency.

## UPSC NDA-I 2017 Exam Paper 2 Syllabus

### Section 'C' (General Science)

Difference between the living and non-living. Basis of Life—Cells, Protoplasm and Tissues. Growth and Reproduction in Plants and Animals. Elementary knowledge of Human Body and its important organs. Common Epidemics, their causes and prevention.

Food—Source of Energy for man. Constituents of food, Balanced Diet. The Solar System—Meteors and Comets, Eclipses. Achievements of Eminent Scientists.

### Section 'D' (History, Freedom Movement etc.)

#### Section 'C' (General Science)

Difference between the living and non-living. Basis of Life—Cells, Protoplasm and Tissues. Growth and Reproduction in Plants and Animals. Elementary knowledge of Human Body and its important organs. Common Epidemics, their causes and prevention.

Food—Source of Energy for man. Constituents of food, Balanced Diet. The Solar System—Meteors and Comets, Eclipses. Achievements of Eminent Scientists.

#### Section 'D' (History, Freedom Movement etc.)

A broad survey of Indian History, with emphasis on Culture and Civilisation. Freedom Movement in India. Elementary study of Indian Constitution and Administration. Elementary knowledge of Five Year Plans of India. Panchayati Raj, Co-operatives and Community Development. Bhoodan, Sarvodaya, National Integration and Welfare State, Basic Teachings of Mahatma Gandhi.

Forces shaping the modern world; Renaissance, Exploration and Discovery; War of American Independence. French Revolution, Industrial Revolution and Russian Revolution. Impact of Science and Technology on Society. Concept of one World, United Nations, Panchsheel, Democracy, Socialism and Communism. Role of India in the present world.

## UPSC NDA-I 2017 Exam Paper 2 Syllabus

### Section 'E' (Geography)

The Earth, its shape and size. Latitudes and Longitudes, Concept of time. International Date Line. Movements of Earth and their effects. Origin of Earth. Rocks and their classification; Weathering—Mechanical and Chemical, Earthquakes and Volcanoes. Ocean Currents and Tides Atmosphere and its composition; Temperature and Atmospheric Pressure, Planetary Winds, Cyclones and Anti-cyclones; Humidity; Condensation and Precipitation; Types of Climate, Major Natural regions of the World. Regional Geography of India—Climate, Natural vegetation. Mineral and Power resources; location and distribution of agricultural and Industrial activities. Important Sea ports and main sea, land and air routes of India. Main items of Imports and Exports of India.

### Section 'F' (Current Events)

Knowledge of Important events that have happened in India in the recent years. Current important world events. Prominent personalities—both Indian and International including those connected with cultural activities and sports.

**NOTE :** Out of maximum marks assigned to part 'B' of this paper, questions on Sections 'A', 'B', 'C', 'D', 'E' and 'F' will carry approximately 25%, 15%, 10%, 20%, 20% and 10% weightages respectively.