

[For English Medium Students Only]

## TSET-F1

Foundation Biology-1	Life Processes - Nutrition, Respiration, Transportation, Excretion, Control and Coordination
Foundation Physics-1	Optics : Reflection of Light, Optics: Refraction of Light, The Human Eye & The Colourful World
Foundation Chemistry-1	Chemical Reactions & Equations, Acids, Bases & Salts, Metals & Non-metals
Foundation Mathematics-1	Real Numbers, Polynomials, Pair of Linear Equations in Two Variables, Co-ordinate Geometry
Foundation Mathematics-2	Introduction to Trigonometry, Similar Triangles, Areas Related to Circles, Probability
Foundation SST-1	History: The Rise of Nationalism in Europe, Nationalism in India, The Making of a Global World, The Age of Industrialisation. Geography: Resources and Development, Forest and Wildlife Resources, Water Resources, Agriculture. Civics: Power Sharing, Federalism, Democracy and Diversity, Gender, Religion and Caste. Economics: Development, Sectors of the Indian Economy.
Foundation English-1	Section A (Grammar) : Tenses, Subject-Verb Concord, Modals, Reported Speech, Articles & Determiners, Integrated Grammar Exercises. Section B (Writing) : Letter Writing, Analytical Paragraph Writing Section C (Literature): Figures of Speech. FIRST FLIGHT: A Letter To God, Dust Of Snow, Fire And Ice, Nelson Mandela : Long Walk To Freedom, A Tiger in the Zoo, Two Stories About Flying (Part 1 - His First Flight, Part - 2 Black Aeroplane), How to Tell Wild Animals, The Ball Poem, From the Diary Of Anne Frank, Hundred Dresses-I, Hundred Dresses-II FOOTPRINTS WITHOUT FEET: A Triumph Of Surgery, The Thief's Story, The Midnight Visitor, A Question of Trust, Footprints Without Feet

## TSET-A TARGET:: NTSE & Olympiads

Advance Biology-1	Nutrition, Respiration, Transportation and Circulation, Excretion, Control and Coordination, Reproduction in Plants and Animals, Heredity and Evolution, Our Environment, Conservation of Natural Resources.
Advance Biology-2	Biodiversity, Cell and its Organisation, Tissue System, Improvement in Food Resources, Disease and its Treatment, Natural Resources and its Pollution.
Advance Physics-1	Electricity and Chemical Effects of Current, Magnetic Effects of Electric Current, Light, Sources of Energy, Heat, Miscellaneous.
Advance Physics-2	Motion, Force and NLM, Gravitation, Thrust and Pressure; Work, Energy, Power; Waves and Sound.
Advance Chemistry-1	Chemical Reactions & Equations, Acid, Bases and Salts, Metals and Non-Metals, Carbon and Its Compounds, Periodic Classification of Elements.
Advance Chemistry-2	Matter in Our Surroundings, Is Matter Around us Pure, Atoms and Molecules, Structure of Atom.
Advance Mathematics-1	Linear Equations in Two Variables, Number System, Surds and Indices, Polynomials, Quadratic Equations, Arithmetic Progression, Co-ordinate Geometry, Trigonometry & its application, Triangle, Circles and Tangent to the Circle, Mensuration of Plane Figures, Mensuration of Solid Figures, Statistics, Probability, Lines and Angles, Quadrilaterals, Area of Parallelogram and Polygon, Equation of Straight Line, Theory of Sets.
Advance Mathematics-2	Every Day Mathematics: Percentage, Profit, Loss and Discount, Partnership, Mixtures and Alligations, Simple and Compound Interest, Ratio and Proportion, Time Speed & Distance, Unitary Method, Time and Work, Pipes And Cisterns, Problems on Ages.
Mental Ability-1	Verbal: Series, Logical Sequence of Words, Coding & Decoding, Analogy, Classification, Logical Venn Diagrams, Mathematical Operations, Direction Sense Test, Alphabet Test, Puzzle Test, Number, Ranking & Time sequence Test, Alpha-Numeric Sequence Puzzle, Inserting The Missing Characters, Calendar, Arithmetical Reasoning, Blood Relations, Statements-Conclusions, Clock, Data Sufficiency, Sequential Output Tracing.
Mental Ability-2	Non Verbal : Series, Analogy, Classification, Analytical Reasoning, Mirror Images, Water Images, Spotting Out The Embedded Figures, Completion of Incomplete Pattern, Paper Folding & Paper Cutting, Dice, Cube, Dot Situation, Figure Matrix, Figure formation, Construction of Shapes & Grouping of Identical Figures.
Advance SST-1	History: Mahatma Gandhi and the national movement, Role of Odisha in Indian National Movement, Formation of Independent Odisha state: Various stages of nationalism in Odisha, India as a newly Independent Nation: Till 20th Century, Merger of Odisha with Garjat States, Odisha: Determining definitive Development. Civics : Formation of new states in India after Independence, Constitutional status of Jammu and Kashmir, Constitutional Design, Electoral Politics, Foreign Policy of India Geography: Resources and Development, Forest and Wildlife Resources, Water Resources, Minerals and Energy Resources, Agriculture, Manufacturing Industries Economics : Economic Development-I, Indian Economy; Growth Rate, Consumer Rights, Poverty as a Challenge, Unemployment.
Advance SST-2	History: First World War, Russian Revolution, The League of Nations, Development of Fascism and Nazism, Second World War, Nationalist Movement in Asia, Nationalist Movement in Africa, Cold War, Formation of Military Blocks: Race for

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Armaments, Non Aligned Movement, Disintegration of Soviet Union, , India's Unity in Diversity and Traditions of India, Architecture, Literature, Science and Technology, Great Heritage of Odisha.

Civics Fundamental Rights, Fundamental Duties and Directive Principles of State Policy, Human Rights, Right to Information (RTI) Act of India, Indian Nationalism and National Integration, Democratic Values, United Nations.

Geography: India-Size and Location, Physical Divisions of India, Climate, Natural Vegetation and Wildlife, Population.

Economics : Economic Development II, Money and Credit, Sustainable Development.

## TSET-E1 (E)#TARGET:: FOUNDATION ENGINEERING

Excellent Physics	Units and Dimensions, Significant Figures & Errors in Measurement, Vectors, Motion in one dimension, Projectile Motion, Newton's Laws of Motion, Friction, Work, Energy & Power, Circular Motion, Gravitation, Simple Harmonic Motion, Wave Motion
Excellent Chemistry	General Concepts in Chemistry, States of Matter, Atomic Structure, Periodic Classification of Elements, Chemical Bonding, Equilibrium, Redox reactions, Basic Concepts of Organic Chemistry.
Excellent Mathematics-1	Sets and Relations, Functions, Quadratic Equation & Expression, Complex Numbers, Logarithm, Trigonometry, Sequences and series, Binomial Theorem, Permutations and Combinations, Points, Straight Lines, Circles, Parabola, Ellipse, Hyperbola

## TARGET:: NMTC ROUND-1

Excellent Mathematics-2	Algebra, Geometry, Number System, Inequalities
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## TSET-E1 (M)#TARGET:: FOUNDATION MEDICAL

Excellent Physics	Units and Dimensions, Significant Figures & Errors in Measurement, Vectors, Motion in one dimension, Projectile Motion, Circular Motion, Newton's Laws of Motion, Friction, Work, Energy & Power, Gravitation, Simple Harmonic Motion, Wave Motion
Excellent Chemistry	General Concepts in Chemistry, States of Matter, Atomic Structure, Periodic Classification of Elements, Chemical Bonding, Equilibrium, Redox reactions, Basic Concepts of Organic Chemistry.
Excellent Biology	Diversity in Living Organisms, Cell, Cell Cycle and Cell Division, Biomolecules, Morphology of Flowering Plants, Anatomy of Flowering Plants and Animals, Plant Physiology, Animal Physiology - Animal Nutrition, Respiratory System, Circulatory System, Excretory System, Control and coordination. # Will be dispatched according to choice given by student at the time of enrollment for preparing for Foundation Engineering or Foundation Medical respectively.

## TSET-F2

Foundation Biology-2	How do Organisms Reproduce, Heredity and Evolution, Our Environment, Sustainable Management of Natural Resources
Foundation Physics-2	Electricity, Magnetic Effects of Electric Current, Sources of Energy
Foundation Chemistry-2	Carbon and its Compounds, Periodic Classification of Elements
Foundation Mathematics-3	Quadratic Equations, Arithmetic Progressions, Heights and Distances
Foundation Mathematics-4	Circles, Constructions, Surface Areas and Volumes, Statistics
Foundation SST-2	History : Print Culture and the Modern World. Geography: Minerals and Energy Resources, Manufacturing Industries, Lifelines of National Economy. Civics : Popular Struggles and Movements, Political Parties, Outcomes of Democracy, Challenges to Democracy. Economics: Money and Credit, Globalisation and The Indian Economy, Consumer Rights.
Foundation English-2	Section A (Grammar): Integrated Grammar Exercises. Section B (Writing) : Letter Writing, Analytical Paragraph Writing Section C (Literature) : FIRST FLIGHT : Amanda, Animals, Glimpses of India (Part 1 - A Baker from Goa, Part 2 - Coorg, Part 3 - Tea from Assam), Trees, Mijbil the Otter, Fog, How to tell Wild Animals, Madam Rides the Bus, The Tale of Custard the Dragon, The Sermon at Benares, For Anne Gregory, The Proposal (Play). FOOTPRINTS WITHOUT FEET : The Making of a Scientist, The Necklace, The Hack Driver, Bholi, The Book That Saved the Earth.

## TSET-E2\* TARGET:: NMTC FINAL ROUND

Excellent Mathematics-3	Same Topics as in Round-1
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\* Module will be dispatched to NMTC Round-1 Qualified Students.

## TSET-E3\*\* TARGET:: NTSE STAGE 2

NTSE Question Bank 1	Mental Ability Test (MAT)
NTSE Question Bank 2	Scholastic Aptitude Test (SAT)
Practicing NTSE	Booklet of Sample Papers

\*\* Module will be dispatched to those students who will be selected for Stage-II of the National Talent Search Examination (NTSE).