# FB4i Classes **IIT-JEE | NEET | FOUNDATION FAST (FB4i ACHIEVERS SCHOLARSHIP TEST) SYLLABUS & PATTERN**

### REASONING

- Patterns •
- Alphabet Test
- Coding-Decoding
- Mirror Images
- Embedded Figures
- Geometrical Shapes and Solids

### **MATHEMATICS**

- Number Sense Computation
- Angles
  - Perimeter and Area
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- Fractions and Decimals

Operations

Measurements

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### SCIENCE

- **General Science**
- Animals
- Human Body and Health
- Plants
- Natural Resources

### REASONING

- Patterns
  - Analogy and Classification
- Coding-Decoding
- Geometrical
  - Shapes
    - Mirror Images
    - Water Images
    - Embedded Figures

### MATHEMATICS

- Mensuration
- Algebra
- Symmetry
- Data Handling
- General Maths
- Basic Geometrical Ideas
  - Knowing our Numbers

Classification **General Questions** 

• Direction Sense Test

• Days and Dates &

Combinations

Possible

Analogy and

- Symmetry
- Data Handling
- General Maths
- **Basic Geometrical** Ideas
- Pollution and Calamities
- Earth and Universe
- Matter
  - Force, Work and Energy
  - Direction Sense Test
  - Ranking Test
  - Alphabet Test and Logical Sequence of Words
  - Puzzle Test
  - **General Questions** •

### Integers

- Fractions •
- Decimals
- Whole Numbers
  - Ratio And Proportion
- Playing with Numbers
- Understanding • **Elementary Shapes**

# SCIENCE

- Food and Its Components
- Fibre to Fabric
- Sorting and Separation of
- **Materials**

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- Changes Around Us
- The World of Living
- Our Environment

### REASONING

- Patterns Analogy and
- Classification
- Coding-Decoding Geometrical
- Shapes
- Puzzle Test
- **Mirror Images** •
- Water Images •
- **Embedded Figures**

# **MATHEMATICS**

- Integers Fractions and Decimals
- Data Handling
- Simple Equations
- Lines and Angles
- The Triangle and its Properties
- Congruence of Triangles
- Comparing Quantities
- Rational Numbers

### SCIENCE

- Nutrition in Plants and Animals
- Fibre to Fabric
- Heat A S S

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- Acids, Bases and Salts
- Physical and Chemical Changes
  - Weather, Climate and Light Adaptations of Animals to • Climate
  - Natural Resources and Winds, Storms and Cyclones Their Conservation

- Motion and Measurement of Distances
- Light, Shadows and Reflections Electricity and
- Circuits Fun with Magnets

General Science

Direction Sense

Mathematical

reasoning

Analytical

reasoning

Ranking Test

of Words

Practical

Area

Algebraic

Powers

• Symmetry

Shapes

Geometry

Perimeter and

Expressions

Exponents and

Visualising Solid

General Maths

**Respiration in** 

Organisms

and Animals

Effects

Motion and Time

**General Science** 

**Ratio & Proportion** 

**Transportation in Plants** 

**Reproduction in Plants** 

Electric Current and its

Alphabet Test and

Logical Sequence

General Questions

Test

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### REASONING

Patterns

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- Analogy and Classification
- Coding-Decoding
- Geometrical Shapes
  - Mirror Images
  - Water Images
  - Embedded Figures

#### **Direction Sense** Test

Mathematical reasoning

#### • Analytical reasoning

- **Ranking Test**
- Alphabet Test and Logical Sequence of Words
- Puzzle Test
- **General Questions**
- MATHEMATICS
  - Playing with Number
  - Rational Numbers
  - Linear Equations in **One Variable**
  - Understanding Quadrilaterals
  - Practical Geometry
  - Data Handling
  - Squares and ٠ **Square Roots**
  - Cubes and Cube Roots
  - Comparing Quantities

#### VIII SCIENCE

- Crop Production and Management
- Microorganisms
- Synthetic Fibres
- Α and Plastics S S
  - Metals and Nonmetals
    - Coal and Petroleum
    - Combustion and Flame
    - Conservation of Plants and Animals
    - General Science

### REASONING

- Patterns
- Analogy and Classification
- Coding-Decoding
- Geometrical Shapes
- Mirror Images
- Water Images
- **Embedded Figures**

- Algebraic Expressions and Identities
- Visualising Solid Shapes
- Mensuration
- Exponents and Powers
- **Direct and Inverse** • Proportions
- Factorisation
- Introduction to Graphs
  - General Maths
- - Cell •
  - Reproduction and •
  - **Endocrine System** Force and
  - Pressure
  - Friction
  - Sound •
  - Chemical Effects of Electric Current
  - Some Natural Phenomena
  - Light Stars and the • Solar System
  - Pollution of Air and Water
  - Direction Sense Test
  - Mathematical reasoning
  - Analytical reasoning
  - **Ranking Test**
  - Alphabet Test and Logical Sequence of Words
  - Puzzle Test
  - **General Questions**

### MATHEMATICS

- Number Systems •
  - Polynomials

Areas of Parallelograms

and Triangles

Constructions

Heron's Formula

Surface Areas and

Circles

Volumes

Statistics

Motion

Tissues

Motion

Sound

Gravitation

Resources

Mathematical

**Ranking Test** 

reasoning

Words

Introduction to

Trigonometry

Trigonometry

Constructions

Volumes

Probability

Triangles

**General Maths** 

Refraction

Human Eye

Organisms

**Reproduction in** 

**Electric Current** 

**Our Environment** 

**General Science** 

Life Processes

Magnetic Effects of

Statistics

Surface Areas and

Circles

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General Science

Direction Sense Test

Analytical reasoning

Alphabet Test and

**General Questions** 

• Some Applications of

Areas Related to Circles

Heredity and Evolution

Light - Reflection and

Logical Sequence of

Force and Laws of

Work and Energy

Improvement in Food

Probability

**General Maths** 

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• Coordinate

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- Geometry
- Linear Equations in •
- Two Variables
  - Introduction to • Euclid's Geometry ٠
  - **Lines and Angles**
  - Triangles • Quadrilaterals

### SCIENCE

IX Matter in Our

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- Surroundings Is Matter Around • **Us Pure**
- Atoms and
- Molecules
- Structure of Atom
- Cell The Fundamental Unit of Life

### REASONING

- Patterns • Analogy and
- Classification
  - Coding-Decoding
- Geometrical Shapes
  - **Mirror Images**
  - Water Images •
  - Puzzle Test **Embedded Figures** • •

### **MATHEMATICS**

- **Real Numbers**
- Polynomials
- Pair of Linear **Equations in Two**
- S Variables S
  - Quadratic ٠ Equations

Arithmetic

Progressions

Coordinate

Geometry

SCIENCE

and Equations

Metals and Non-

• Carbon and its

Compounds

Coordination

Control and

metals

Electricity

**Chemical Reactions** 

Acids, Bases and Salts

### REASONING

- Blood Relation
- Coding-decoding
- Counting of Figure
- Cube & Dice
- Direction Sense
- Embedded Figure
- Missing Charater

### PHYSICS

- Units and Measurements
- C L Motion in a Straight Α Line
  - Motion in a Plane

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- Laws of Motion
- Work, Energy and Power
- System of Particles and Rotational Motion
- **CHEMISTRY**
- Some Basic Concepts of
- Chemistry
- Structure of Atom
- Classification of **Elements** and
  - Periodicity in **Properties**
  - Chemical Thermodynamics

### MATHEMATICS

- Sets
- Relations & Functions •
- С Trigonometric L A S S **Functions** 
  - **Quadratic Equations** 
    - Linear Inequalities
    - Permutations and Combinations
      - BIOLOGY
    - The Living World
  - **Biological Classification** •
- Plant Kingdom С ٠
- L Animal Kingdom
- Α • Morphology of S
- Flowering Plants S
  - Anatomy of Flowering • Plants
    - Structural Organisation in Animals
    - Cell-The Unit of Life
    - **Biomolecules**
    - Cell Cycle and Cell Division

- Mathematical Operation
- Siiting Arrangment •
- Number Ranking
- **Puzzle Test**
- Calender
- Clock
- Syllogism
- Mechanical .
- **Properties of Solids** Mechanical .
- **Properties of Fluids**
- Thermal Properties of Matter
- Thermodynamics •
- **Kinetic Theory** .
- . Oscillations
- . Waves
- Gravitation
- Equilibrium
- **Redox Reactions**
- Organic Chemistry -•
- Some Basic Principles and Techniques
- Hydrocarbons
- Chemical Bonding and Molecular Structure
  - **Binomial Theorem** 
    - Sequence and Series
    - Straight Lines
    - **Conic Sections**
- Complex Numbers and Introduction to Threedimensional Geometry
  - Limits and Derivatives
  - Statistics
  - Probability
  - Photosynthesis in Higher Plants
  - **Respiration in Plants** Plant - Growth and •
  - Development
  - Breathing and Exchange of Gases
  - Body Fluids and Circulation
  - **Excretory Products and their** Elimination
  - Locomotion and Movement
  - Neural Control and Coordination
  - Chemical Coordination and • Integration

### REASONING XII

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- Blood Relation
- Coding-decoding

Mathematical

Siiting Arrangment

Number Ranking

Operation

Puzzle Test

Calender

Syllogism

Instruments

Wave Optics

and Matter

**Electronics:** 

Semiconductor

Simple Circuits

Haloarenes

Ethers

Amines

Haloalkanes and

Aldehydes, Ketones

Integrals

Differential

Equations

dimensional

Programming

Geometry

Probability

Microbes in

Processes

and its

Human Welfare

Biotechnology -

Principles and

Biotechnology

Applications

• Organisms and

Conservation

**Biodiversity and its** 

Populations

Ecosystem

Vectors

Three -

Linear

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**Biomolecules** 

Atoms

Nuclei

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Alternating Current

**Electromagnetic Waves** 

Ray Optics and Optical

Dual Nature of Radiation

Materials, Devices and

Alcohols, Phenols and

and Carboxylic Acids

Applications of the

Clock

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- Counting of Figure •
- Cube & Dice • **Direction Sense**
- **Embedded Figure** •
- Missing Charater

### PHYSICS

- **Electric Charges** • and Fields
- С Electrostatic L
- Potential and Α S
  - Capacitance
  - Current Electricity
  - **Moving Charges** and Magnetism
    - Magnetism and Matter
    - Electromagnetic Induction

### CHEMISTRY

- Solutions
- Electrochemistry •

d and f Block

Coordination

Compounds

MATHEMATICS

**Relations and** 

Trigonometric

Determinants

Continuity and

Differentiability

Applications of

BIOLOGY

Reproduction in

**Flowering Plants** 

Reproduction

Reproductive

Inheritance and

Molecular Basis of

Human Health and

Derivatives

Integrals

Sexual

Human

Health

Principles of

Variation

Evolution

Diseases

Inheritance

**Functions** 

**Functions** 

Matrices

Inverse

Elements

Chemical Kinetics