

# **Syllabus for FIITJEE Talent Reward Exam**

## **28th December, 2008**

**For VI studying students (going to VII in 2009)**

### **Science**

#### **PHYSICS**

1. Motion and Measurement of Distances
2. Light, Shadows and Reflections
3. Electricity and Circuits

#### **CHEMISTRY**

1. Fibre to Fabric
2. Sorting materials into groups
3. Separation of substances
4. Changes around us
5. Water
6. Air around us
7. Garbage in Garbage out

#### **BIOLOGY**

1. Food: Where does it come from?
2. Components of Food
3. Getting to know plants
4. Body movements

#### **MATHEMATICS**

1. Number System
2. Algebra
3. Ratio and Proportion
4. Geometry
5. Mensuration
6. Data Handling

## For VII studying students (going to VIII in 2009)

### Science

#### PHYSICS

1. Motion and Time
2. Electric Current and Its Effects
3. Light

#### CHEMISTRY

1. Fibre to Fabric
2. Acids, Bases and Salts
3. Physical and Chemical Changes
4. Soil
5. Water: A Precious Resource

#### BIOLOGY

1. Nutrition in plants
2. Nutrition in animals
3. Weather, Climate and Adaptations of Animals to Climate
4. Respiration in Organisms
5. Transportation in Animals and Plants
6. Reproduction in Plants

#### MATHEMATICS

1. Number System
2. Algebra
3. Ratio and Proportion
4. Geometry
5. Mensuration
6. Data Handling

## For VIII studying students (going to IX in 2009)

### PHYSICS

1. Force and Pressure
2. Friction
3. Sound
4. Chemical Effects of Electric Current
5. Light

### CHEMISTRY

1. Synthetic Fibres & Plastics
2. Metals and Non metals
3. Coal & Petroleum
4. Combustion & Flame

### BIOLOGY

1. Crop Production & Management
2. Microorganism
3. Conservation of Plants & Animals
4. Cell-Structure & Function
5. Reproduction in Animals

### MATHEMATICS

1. Rational Numbers
2. Linear Equation in One Variable
3. Understanding Quadrilaterals
4. Practical Geometry
5. Data Handling
6. Algebraic Identities
7. Mensuration
8. Factorisation

## For IX studying students (going to X in 2009)

### PHYSICS

1. Motion, Uniform, Non uniform (Accelerated)
2. Forces and Laws of motion
3. Gravitation
4. Work and Energy

### CHEMISTRY

1. Matter in Our Surrounding
2. Is matter around us is pure? Properties of Matter, Solutions, Chemical Reactions
3. Atoms and Molecules
4. Mole Concept

### BIOLOGY

1. Cell: The Fundamental Unit of Life
2. Tissues
3. Diseases: Why do we fall ill?
4. Diversity in Living Organism

### MATHEMATICS

1. Algebra
2. Geometry
3. Mensuration
4. Real Numbers
5. Coordinate Geometry
6. Statistics and Probability

## For X studying students (going to XI in 2009)

### PHYSICS

1. Motion
2. Force
3. Gravitation
4. Work and Energy
5. Wave Motion
6. Light, Reflection and Refraction
7. The Human Eye & The Colourful World
8. Electricity and its heating and chemical effects
9. Magnetic effects of electric current

### CHEMISTRY

1. Chemical Reactions & Equations
2. Acid, Base and Salts
3. Periodic Classification
4. Metals and Non-Metals, Alkaline Earth Metals

### MATHEMATICS

1. Number System
2. Algebra
  - (a) Polynomials
  - (b) Quadratic Expressions
  - (c) Arithmetic Progression
  - (d) Linear equation in two variables
3. Trigonometry
4. Coordinate Geometry
5. Geometry
6. Mensuration
7. Statistics & Probability

## For XI studying students (going to XII in 2009)

### PHYSICS

1. Physical world and Measurement
2. Vectors
3. Kinematics
4. Laws of motion
5. Work energy and Power
6. Conservation of momentum
7. Rotational Mechanics
8. Gravitation and Fluid
9. Elasticity and SHM
10. Heat and Thermodynamics
11. Waves and sound

### CHEMISTRY

1. Some Basic Concept of Chemistry
2. Atomic Structure
3. Classification of Element and Periodic Properties
4. Chemical Bonding & Molecular Structure
5. State of Matter
6. Redox Reaction & Stoichiometry
7. Thermodynamics
8. Chemical Equilibrium
9. Ionic Equilibrium
10. Hydrogen & Its compounds
11. s-Block & p-Block Elements (13 & 14 group)
12. Nomenclature of Organic Compounds & General organic Chemistry
13. Hydrocarbons
14. Environmental Chemistry

### MATHEMATICS

1. Basic Calculus
2. Sets, Relations and Functions
3. Quadratic Eq. & Expressions
4. Algorithms
5. Mathematical Induction
6. Linear Inequalities
7. Progression & Series
8. Complex Numbers
9. Trigonometric Ratios and Identities
10. Trigonometric Equations
11. Solution of Triangles
12. Binomial Theorem
13. Straight Line
14. Conic Section
15. Circle
16. Parabola
17. Ellipse
18. Hyperbola
19. Permutations & Combinations
20. Limits & Derivatives

21. Statistics
22. Probability
23. Three Dimensional Geometry (Basic)
24. Mathematical Reasoning