

## NIMCET Syllabus

### NIMCET Exam Syllabus of Mathematics

<p style="text-align: center;"><b>Set Theory</b></p> <ul style="list-style-type: none"> <li>• Concept of sets</li> <li>• Union</li> <li>• Intersection</li> <li>• Cardinality</li> <li>• Elementary counting</li> <li>• Permutations and combinations</li> </ul>	<p style="text-align: center;"><b>Probability and Statistics</b></p> <ul style="list-style-type: none"> <li>• Basic Concepts Of Probability Theory</li> <li>• Averages</li> <li>• Dependent And Independent Events</li> <li>• Frequency Distributions</li> <li>• Measures Of Central Tendencies And Dispersions</li> </ul>
<p style="text-align: center;"><b>Algebra</b></p> <ul style="list-style-type: none"> <li>• Fundamental Operations In Algebra</li> <li>• Expansions</li> <li>• Factorization</li> <li>• Simultaneous Linear</li> <li>• Quadratic Equations</li> <li>• Indices</li> <li>• Logarithms</li> <li>• Arithmetic</li> <li>• Geometric And Harmonic Progressions</li> <li>• Determinants</li> <li>• Matrices</li> </ul>	<p style="text-align: center;"><b>Calculus</b></p> <ul style="list-style-type: none"> <li>• Limit Of Functions</li> <li>• Continuous Function</li> <li>• Differentiation Of Function</li> <li>• Tangents And Normal's</li> <li>• Simple Examples Of Maxima And Minima</li> <li>• Integration Of Functions By Parts, By Substitution And By Partial Fraction</li> <li>• Definite Integrals</li> <li>• Applications Of Definite Integrals To Areas</li> </ul>
<p style="text-align: center;"><b>Trigonometry</b></p> <ul style="list-style-type: none"> <li>• Simple Identities</li> <li>• Trigonometric Equations</li> <li>• Properties Of Triangles</li> <li>• Solution Of Triangles</li> </ul>	<p style="text-align: center;"><b>Vectors</b></p> <ul style="list-style-type: none"> <li>• Position Vector</li> <li>• Addition And Subtraction Of Vectors</li> <li>• Scalar And Vector Products</li> <li>• Vector Applications To Simple Geometrical Problems And Mechanics</li> </ul>
<p><b>Coordinate Geometry</b></p> <ul style="list-style-type: none"> <li>• Rectangular Cartesian Coordinates</li> <li>• Distance Formulae</li> <li>• Equation Of A Line</li> <li>• Intersection Of Lines</li> <li>• Pair Of Straight Lines</li> <li>• Equations Of A Circle</li> <li>• Parabola</li> <li>• Ellipse</li> <li>• Hyperbola</li> </ul>	

### NIMCET Syllabus of Computer Awareness

<b>Computer Basics</b>	<b>Binary Arithmetic</b>
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- Organization Of A Computer
- Central Processing Unit (CPU)
- Structure Of Instructions In CPU
- Input / Output Devices
- Computer Memory
- Back-Up Devices
- Data Representation:
- Representation Of Characters
- Integers And Fractions
- Binary And Hexadecimal Representations

- Addition
- Subtraction
- Multiplication
- Division
- Simple Arithmetic And Two's Complement Arithmetic
- Floating Point Representation Of Numbers
- Boolean Algebra
- Truth Tables
- Venn Diagrams

### **NIMCET Syllabus of Analytical Ability And Logical Reasoning**

In this section, questions will be covered from logical situation and facts given in the passage

#### **GENERAL ENGLISH:**

Questions in this section will be designed to test the candidates' general understanding of the English language. There will be questions on the following topics:

- Comprehension
- Vocabulary
- Basic English Grammar