

12 TEST PATTERN

The NIMCET-2025 test will be conducted with single paper in three parts containing 120 multiple choice questions. The Part-I time-duration is 70 minutes and it consists of Mathematics (50 questions). The Part-II time-duration is 30 minutes and it consists of Analytical ability and Logical reasoning (40 questions). The Part-III time-duration is 20 minutes and it consists of Computer Awareness (20 questions) and English (10 questions).

The three parts of the Computer-Based Test(CBT) will appear to the candidate one after the other. Time assigned for each part is fixed. Candidate should complete each part in allotted time as movement to one section from the other is **not** permitted. The Multiple-Choice Questions will be written in English Language only and will **not** be translated into any other language. The distribution of time assigned, questions and marks are as follows:

Subject	Total no of questions	Marks awarded for correct answer	Marks deducted for wrong answer	Total marks
Part-I (70 minutes) 2:00 PM-3:10 PM				
Mathematics	50	12	3	600
Part-II (30 minutes) 3:10 PM-3:40 PM				
Analytical Ability & Logical Reasoning	40	6	1.5	240
Part-III (20 minutes) 3:40 PM-4:00 PM				
Computer Awareness	20	6	1.5	120
General English	10	4	1	40

Total Marks: 1000

12.1 AWARD OF MARKS

- Each correct answer will be awarded full marks and each wrong answer will lead to 25% **NEGATIVE** mark.
- The candidates are advised not to attempt questions if they are not sure of the correct answer. No deduction from the total score will, however, be made if a question is unanswered.
- More than one answer indicated against a question will be negatively marked.
- The candidates have to mark the responses as per the instructions (appearing on the screen of the computer terminal) of NIMCET-2025 online examination.

12.2 SYLLABUS FOR NIMCET-2025 TEST

12.2.1 MATHEMATICS: (50 QUESTIONS)

- Set Theory: Concept of sets – Union, Intersection, Cardinality, Elementary counting; permutations and combinations.
- Probability and Statistics: Basic concepts of probability theory, Averages, Dependent and independent events, frequency distributions, measures of central tendencies and dispersions.
- Algebra: Fundamental operations in algebra, expansions, factorization, simultaneous linear /quadratic equations, indices, logarithms, arithmetic, geometric and harmonic progressions, determinants and matrices.
- Coordinate Geometry: Rectangular Cartesian coordinates, distance formulae, equation of a line, and intersection of lines, pair of straight lines, equations of a circle, parabola, ellipse and hyperbola.

- Calculus: Limit of functions, continuous function, differentiation of function, tangents and normals, simple examples of maxima and minima. Integration of functions by parts, by substitution and by partial fraction, definite integrals, applications of definite integrals to areas.
- Vectors: Position vector, addition and subtraction of vectors, scalar and vector products and their applications to simple geometrical problems and mechanics.
- Trigonometry: Simple identities, trigonometric equations, properties of triangles, solution of triangles, heights and distances, general solutions of trigonometric equations.

12.2.2ANALYTICAL ABILITY & LOGICAL REASONING: (40 QUESTIONS)

- The questions in this section will cover logical situation and questions based on the facts given in the passage.

12.2.3COMPUTER AWARENESS: (20 QUESTIONS)

- Computer Basics: Organization of a computer, Central Processing Unit (CPU), structure of instructions in CPU, input/output devices, computer memory, and back-up devices.
- Data Representation: Representation of characters, integers and fractions, binary and hexadecimal representations, binary arithmetic: addition, subtraction, multiplication, division, simple arithmetic and two's complement arithmetic, floating point representation of numbers, Boolean algebra, truth tables, Venn diagrams

12.2.4GENERAL ENGLISH: (10 QUESTIONS)

Questions in this section will be designed to test the candidate's general understanding of the English language.

There will be questions on the following topics:

Comprehension, vocabulary, Basic English Grammar (like usage of correct forms of verbs, prepositions and articles), word power, synonyms and antonyms, meaning of words and phrases, technical writing

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