

12 TEST PATTERN

NIMCET-2023 test will be conducted with single paper containing 120 multiple choice questions covering the following subjects. Multiple Choice Questions will be written in English Language only and will not be translated into any other language. The distribution of questions and marks is as follows:

Subject	Total no of questions	Marks awarded for correct answer	Marks deducted for wrong answer	Total marks
Mathematics	50	12	3	600
Analytical Ability & Logical Reasoning	40	6	1.5	240
Computer Awareness	20	6	1.5	120
General English	10	4	1	40

Total Marks: 1000

12.1 AWARD OF MARKS

- Each correctly answered question will be awarded full marks and each wrongly answered question will lead to 25% **NEGATIVE** mark.
- The candidates are advised not to attempt such 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 in the screen of NIMCET-2023 online examination.

12.2 SYLLABUS FOR NIMCET-2023 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.

12.2.2 ANALYTICAL ABILITY & LOGICAL REASONING: (40 QUESTIONS)

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

12.2.3 COMPUTER 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

12.2.4 GENERAL ENGLISH: (10 QUESTIONS)

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 (like usage of correct forms of verbs, prepositions and articles), word power, synonyms and antonyms, meaning of words and phrases, technical writing.

13 QUALIFYING CRITERIA FOR ALLOTMENT OF RANK

A Candidate securing zero or negative marks either in Mathematics or in Total Marks in NIMCET-2023 test will be disqualified. Based on the marks obtained by a qualified candidate in NIMCET-2023 test, a rank will be allotted by adopting the following criteria.

- The marks obtained in Mathematics, Analytical Ability & Logical Reasoning, Computer Awareness, English, will be summed up. Thus, maximum weighted marks will be 1000.
- Ranking will be based on total weighted marks obtained by a candidate.
- In case of a tie, following tie breaker policy shall be adopted:

Tie breaker 1: Candidate scoring higher marks in Mathematics will be given priority in the merit list in case of tie.

Tie breaker 2: This policy will come into effect only if two or more candidates score similar marks in Mathematics. The marks scored by the candidate in *Analytical Ability & Logical reasoning* will be considered to determine the rank.

Tie breaker 3: This policy will come into effect only if two or more candidates score same marks in Mathematics and *Analytical Ability & Logical reasoning*. The marks scored by the candidate in *Computer Awareness* will be considered to determine the rank.

Tie breaker 4: This policy will come into effect only if two or more candidates score same marks in Mathematics, *Analytical Ability & Logical reasoning* and *Computer Awareness*. Candidate older in age will be given preference in merit list.

Tie breaker 5: This policy will come into effect in case of above tie breakers is unable to resolve the stalemate. Random Sampling by computer will be considered for consideration of merit.

Ranks secured by candidates in the NIMCET-2023 test will be made available on the website.

Rank Statement/score card should be downloaded from the website. No separate RANK STATEMENT will be sent to the candidates.

14 ADMISSION PROCEDURE

NIMCET-2023 application form is common for appearing for Entrance Test for admission to MCA at all the nine participating NITs offering MCA program. Separate application need to be filled for counselling process after declaration of NIMCET-2023 result. Participating Institutes