

10	Dr. Sarvesh K. Tiwari	Registrar, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India- 211004 Email: tiwari.sarveshk@gmail.com	www.mnnit.ac.in
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Note: NIT Calicut and NIT Patna informed that they have discontinued the MCA Course for admission in academic year 2022-23.

12 TEST PATTERN

NIMCET-2022 test will be conducted with only one question 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.

1. Mathematics: 50 Questions
2. Analytical Ability & Logical Reasoning: 40 questions
3. Computer Awareness: 10 questions
4. General English: 20 questions

12.1 AWARD OF MARKS

- Each correctly answered question will carry **FOUR** marks and each wrongly answered question will lead to **NEGATIVE ONE** 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-2022 online examination.

12.2 SYLLABUS FOR NIMCET-2022 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: (10 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: (20 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-2022 test will be disqualified. Based on the marks obtained by a qualified candidate in NIMCET-2022 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 multiplied by a factor of 3, 1.5, 2 and 1 respectively. Thus, maximum weighted marks will be 1000.
- Ranking will be based on total weighted marks obtained by a candidate.
- In case of a tie, it will be resolved based on weighted marks in *Mathematics*, then on weighted marks in *Analytical Ability & Logical reasoning* and then on weighted marks in *Computer Awareness*.
- In case the tie is not resolved by the criteria stated in the above paragraph, then it will be *resolved by age* i.e., in favour of older candidate.

Ranks secured by candidates in the NIMCET-2022 test will be made available in the website <https://www.nimcet.in>.

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

14 ADMISSION PROCEDURE

NIMCET-2022 application form is common for appearing for Entrance Test, counselling, and admission to MCA at all the nine participating NITs offering MCA programme. Participating Institutes are NITs at Agartala, Allahabad, Bhopal, Jamshedpur, Kurukshetra, Raipur, Surathkal, Tiruchirappalli and Warangal.

Candidates are not required to apply separately to any NIT for admission to MCA programme.