

# DEPARTMENT OF COMPUTER SCIENCE SAVITRIBAI PHULE PUNE UNIVERSITY



Phone: 020-25601446  
Fax: 020-25690794  
Email: pucsd@pun.unipune.ac.in

Ref. No. : CSD/

Date : 01/04/2019

## Syllabus for MSc (CS) Entrance Exam 2019-20

Major areas are Logical Reasoning, Mathematics, General Aptitude and the basic programming skills.

### Section I : Logical Reasoning and Mathematics

1. Set theory: Set operations, relations, functions.
2. Propositional logic: Formulation, deduction, evaluation, puzzles.
3. Linear Algebra: Solution of a system of linear equations. Determinant and inverse of a matrix, basic properties of matrices.
4. Co-ordinate Geometry and Conic Sections: Equations of lines and planes, vector products; definitions and properties of conic sections.
5. Trigonometry: Identities, computation of heights and lengths.
6. Differential Calculus: Total and partial differentiation, limit of a function.
7. Integral Calculus: Definite and indefinite integrals, solution of differential equations, computation of areas and volumes.
8. Series and sequences: sum, mean, convergence, limit.
9. Real and complex numbers: surds, solution of equations on complex domain.
10. Polynomials: solution of quadratic equations, properties of roots of polynomials with real coefficients, binomial expansion, Taylor series.
11. Permutations and Combinations.
12. Elementary Probability Theory: Computing probability from combinatorial reasoning, conditional probability.

### Section II : Fundamentals of Programming

Algorithms & Flowchart Functions, Arrays & Pointers, structures & Unions string & file handling.

The detailed information about the Entrance Examination date and other necessary details will be posted on <http://cs.unipune.ac.in>

**Do keep visiting this website**

A blue ink signature of Prof. Sanjay Dhole, written in a cursive style.

Head

Prof. Sanjay Dhole

Head

Department of Computer Science  
Savitribai Phule Pune University  
Pune - 411 007.