NAAC Re-Accredited 'A' Grade
ESTD. 1963
RJC
ISO 9001:2015
Best College
UNIVERSITY OF MUMBAI

Hindi Vidya Prachar Samiti's
RAMNIRANJAN JHUNJHUNWALA COLLEGE (AUTONOMOUS)

(Also known as R. J. College of Arts, Science & Commerce as per UGC Notification)

Affiliated to UNIVERSITY OF MUMBAI II Recognized by UGC under 2f & 12B
NAAC Accredited 'A GRADE' with CGPA 3.50

Knowledge is all Ambrosia

A T S M C

CERTIFICATE COURSE IN

Introduction to SCILAB

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Opposite Railway Station, Ghatkopar (W),
Mumbai 400 086, Maharashtra, INDIA.

CERTIFICATE COURSE IN **INTRODUCTION TO SCILAB**

ABOUT US

Hindi Vidya Prachar Samiti was incepted on the auspicious day of Shri Krishna Janmashtami, 15th August 1938. A brain child of a visionary Late Shri Nandkishore Singh Jairamji, samiti was established with the objectives of catering to the educational needs of the Hindi speaking community. Ramniranjan Jhunjhunwala College came into existence in 1963, enabling a larger section of the society to take advantage of the facilities provided for higher education.

From 1999-2000 the College has added a number of self-financing courses like B.M.S., B.B.I., B.Sc. in Computer Science, Information Technology, Biotechnology, M.Sc. in Computer Science, Biotechnology and Information Technology as well as add on courses, which further hone the special skills of the students.

The college has been reaccredited with 'A' Grade by NAAC in 2014 with a CGPA 3.50 and received the Best College Award (2007-2008) of the University of Mumbai.

The College has been bestowed with IMC "Ramkrishna Bajaj Performance Excellence Trophy", 2010.

The Principal of the college was awarded "Best Teacher" by Government of Maharashtra in 2011.

Government of Maharashtra conferred the college with "JAAGAR JAANIVANCHA" (First in Mumbai Suburban- in 2013 and Second in Mumbai Suburban- in 2014) for safety of girls.

Course Code: RJMATC02

Duration: 30 hours

Credits : 02

LEARNING OUTCOME

At the end of the course participants will be able to

- Understand the various Software alternatives.
- Learn about Arrays and Vectors Operation
- Create 2D Plotting and plotting multiple plots in same graph.
- Understand Loops and Clause.

COURSE CONTENT

INTRODUCTION TO SCILAB Introduction to Numerical Computing Various Software Alternatives History Installation Workspace Command Prompt Variable Browser SciNotes

Working with Scilab Files Formatting Command Prompt Display Operator Precedence Variable Browser Window Clearing Variables Comments Predefined Constants Common Mathematical Functions Variable Assignment Operator = Naming Conventions for Variables Global and Local Variables List of Variables Data Types Numerical Data How to Store Floating Point Numbers Formatted Display of Numbers Boolean Data Strings

WORKING WITH ARRAYS Introduction Arrays and Vectors Operations on Arrays and Vectors Elementwise Operations Matrix Multiplication Inverse of Matrices det() rank() trace() meshgrid, ndgrid Magnitude of a Vector Random Matrix, Using Indices to Make New Vectors Slicing Appending Rows and Columns Deleting a Row and/or Column of a Matrix Concatenation along a Dimension Logical Operations on Arrays Automatic Generation of Vectors Linearly Spaced Vectors Logarithmically Spaced Vectors Matrix Manipulations Scaling a Matrix Reshaping a Matrix Special Matrices Upper and Lower Triangular Matrices Ones and Zeros Matrices Diagonal Matrices Special Matrices Mathematical Matrix Operations Dot Products Cross Products

PLOTTING Introduction 2D Plotting plot(x, y) plot2d(), plot2d2(), plot2d3(), and plot2d4() polarplot() Plotting Multiple Plots in the Same Graph Plotting Multiple Plots Separately 3D Plots

LOOPS AND CLAUSE introduction Loops while Infinite Loops for if-else, if-else

Continuous Evaluation

ASSESSMENT

MEDIUM OF INSTRUCTION **English**

100 MARKS

PASSING 40

WHO SHOULD DO IT?

Under-graduate student