Name of the Activity- Mathematical Software Sci-Lab

Introduction- Scilab is a high-level, numerically oriented programming language. The language provides an interpreted programming environment, with matrices as the main data type. Scilab is software for numerical computation providing a powerful computing environment for engineering and scientific applications. A large number of functionalities is included in Scilab: control, simulation, optimization, signal processing, Numerical analysis or scientific computing is the study of approximation techniques for numerically solving mathematical problems.

Applications-

1) Scilab provides about 1,700 mathematical functions forl engineering and Science including mathematical operations, data analysis.2-D and 3-D graphs

2) Scilab provides standard algorithms and tools for control system study.

3) It also used in data structure such as polynomials, matrices and graphic.

4)Scilab provides graphics functions to visualize and export data and offers many ways to create and customize various types of plots and charts: Lines, Pie charts, Histograms Surfaces.

7) The software can be used for signal processing, statistical analysis, image enhancement, fluid

dynamics simulations, and numerical optimization.

Methods in Scilab are generally used as

1) Interpolation and regression,2)Differentiation and integration,3)Linear systems of Equations, 4)Fourier analysis,5) Ordinary differential equations 6) Matrix computation (Determination of eigenvalues and singular values)

H.O.D.

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