

**MANAV RACHNA UNIVERSITY, FARIDABAD**  
**Department of Computer Science & Technology**

**Course: B. Tech**

**Semester: VI**  
**Subject: R Programming**

**BT Level Covered: BT1, BT2, BT3**

**BT1- Knowledge; BT2-Comprehension; BT3-Applications**

**Course Outcome (CO): CO1:** Define the basics of R programming concepts and Business Analytics

**Workshop/Lab: 1**

**1. Introduction to R: A brief discussion**

- a) History
- b) Features
- c) Industrial uses

**2. Installation of R software:**

**a) To Install R and R Packages:**

- i. Open an internet browser and go to [www.r-project.org](http://www.r-project.org).
- ii. Click the "download R" link in the middle of the page under "Getting Started."
- iii. Select a CRAN location (a mirror site) and click the corresponding link.
- iv. Click on the "Download R for WINDOWS" link at the top of the page.
- v. Click on the file containing the latest version of R under "Files."
- vi. Save the .pkg file, double-click it to open, and follow the installation instructions.
- vii. Now that R is installed, you need to download and install RStudio.

**b) To Install RStudio:**

- i. Go to [www.rstudio.com](http://www.rstudio.com) and click on the "Download RStudio" button.
- ii. Click on "Download RStudio Desktop"
- iii. Click on the version recommended for your system, or the latest Mac version, save the .dmg file on your computer, double-click it to open, and then drag and drop it to your applications folder.

**3. Saving your work:**

- i. Go to New file in R studio
- ii. Create test1.R file
- iii. Perform basic syntax in R:
  - (a) `print("Hello, World!")`
  - (b) Basics mathematics calculations:  
`2+2; 44/2; 88*2`
- iv. Save your work and file & Run.