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| **DIT UNIVERSITY DEHRADUN**   |  |  | | --- | --- | | **B.TECH (CSE/IT)** | **MID TERM EXAMINATION, ODD SEM 2024-25 (SEM V)** | | | | | | | | | | | | | |
| **Roll No.** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Subject Name: R Programming** | | | | | | | | | | | | |

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| **Time: 2 Hours** | **Total Marks: 50** |
| **Note: No student is allowed to leave the examination hall before the completion of the exam.**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**   |  |  |  |  | | --- | --- | --- | --- | | **SECTION A : Attempt any four questions from the following : [4 x 5= 20]** | | | | |  | |  |  | | **Q.1)** | List out rules for variable declaration in R language. | | | | **Q.2)** | Write a R program to print student grades using if-else if. | | | | **Q.3)** | Write the difference between the following:  (i) <- and <<- (ii) \b and \n (iii) cat and paste | | | | **Q.4)** | Describe comparison and logical operators using an appropriate R program. | | | | **Q.5)** | Discuss that every function is an object in R language. | | | | **SECTION B : Attempt any three questions from the following : [3 x 10= 30]** | | | | |  | |  |  | | **Q.6)** | Explain the different types of loops available in R. Show the use of break and next  statement within loops. | | | | **Q.7)** | Illustrate with example the following:  (i) List  (ii) Factors (iii) Recursive function | | | | **Q.8)** | (a) Write a program to print a series of squares and cubes from 1 to a given number.   **[6Marks]** | | | | (b) Illustrate the use of dim () and c() function to create an array in R.  **[4Marks]** | | | | **Q.9)** | (a) Write a program to create a matrix of four rows and three columns. How can you combine two matrices into a single matrix? **[5Marks]** | | | | (b) Write a program to create a dataframe named as batsmen with their names and corresponding strike rate. Group them into 2 categories based on strike rate greater than equal to 100 as good and strike rate less than 100 as bad using if-else **[5Marks]** | | | | **-----END OF PAPER ----** | |  |  | | |