1. Write a R program to create a data frame from four given vectors.

2. Write a R program to create a data frame consists of 4 vectors student id, student name,

course, and marks. Read 10 student records and print the structure of a given data frame.

Also, print the mean, median, mode, standard deviation and variance

3. Refer the data taken in Q2 and write a R program to perform the following operations.

i. sort the data frame with respect to Student id, course, and Marks individually

ii. sort the data frame collectively with respect to student id in descending order and

marks in ascending order

iii. sort the data frame collectively with respect to course in ascending order and marks.

4. Write a R program to create a data frame for the given below data and perform the

following operations

1. Extract the column marks and print mean, median, on the below data from a data frame using column name. And print the mean, median, mode, standard deviation and variance.
2. Extract the column SID and sort the data in ascending order and print the corresponding data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SID | Sname | Gender | Course | Marks | Grade |
| 29 | Raman | Male | CSE | 570 | A |
| 34 | Wipro | Male | ECE | 440 | B |
| 56 | Karan | Male | CSE | 320 | C |
| 12 | Dell | Female | MECH | 530 | A |
| 30 | Rosy | Female | ECE | 290 | C |
| 31 | Smith | Male | CSE | 230 | D |
| 52 | John | Male | BBA | 365 | C |
| 48 | Smitha | Female | LAW | 420 | B |
| 26 | Khan | Male | CSE | 375 | C |
| 18 | Bajaj | Male | ECE | 290 | D |

5. Consider the data given in Q4 and write a R program to print the first 3 rows

6. Consider the data given in Q4 and write a R program to print the last 3 rows

7. Write a R program to add TWO more rows to the Q4 data

8. Write a R program to add a new column CITY to Q4 data