# Introduction to R Programming – Project Questions

1. What is R and what are its main uses in data science and statistics?

2. How do you assign a value to a variable in R?

3. Explain the difference between a vector and a list in R.

4. How can you check the structure of a dataset in R?

5. What is the difference between '=' and '<-' when assigning values?

6. What function would you use to read a CSV file into R?

7. How can you view the first 6 rows of a dataset?

8. What is a data frame in R? How is it different from a matrix?

9. How do you access a specific column in a data frame?

10. What is the purpose of using the summary() function in R?

11. How do you remove missing (NA) values from a dataset?

12. Write a line of code to convert a column with text to a numeric data type.

13. Explain how the filter() and select() functions are used in the dplyr package.

14. How do you rename a column in a data frame?

15. What does the %>% operator do, and why is it useful?

16. How does an if statement work in R? Give an example.

17. Write a for loop in R to print numbers 1 to 10.

18. Create a simple function in R that adds two numbers and returns the result.

19. What is ggplot2 and how is it used in R?

20. Write a basic ggplot() command to create a bar chart showing the count of categories in a column.