Name of the Course   :   Semester   : III

Name of the Paper   **: IT Skills and Data Analysis—I**   Faculty Name   : AJAY

Duration   : 1-hour   Maximum Marks: 20

Date of Test   : 21st October

Each question carries an equal weight.

Q.1 Explain how scatter diagrams can be used to assess the relationship between two variables. Describe what you would expect to see in a scatter diagram that indicates a strong positive correlation between the variables.

Q.2 Outline the steps involved in specifying and testing a statistical model. Discuss the importance of hypothesis testing in the context of model specification.

Q.3 Describe the method of least squares in the context of multiple linear regression. How does it differ from the simple linear regression approach? Illustrate your answer with an example.

Q.4 Imagine you have completed a project using multiple regression analysis. How would you present the significance of your findings in a viva? Discuss the key points you would address and how you would justify your model choice.