**Answers have to be brief. Not more than a paragraph.**

1. What is the difference between supervised and unsupervised learning methods? Give an example to both cases.
2. Explain the scenarios which are best suitable for

a) Linear Regression b)Logistic Regression

1. Briefly explain the steps involved in creating a model using logistic regression.
2. What are the methods to evaluate the performance of Machine Learning models?
3. What are the considerations to be given during initial data analysis stage before developing a model?
4. Solve the following probability questions
   1. A fair six-sided die is rolled twice. What is the probability of getting 2 on the first roll and not getting 4 on the second roll?
   2. A jar contains 4 marbles. 3 Red & 1 white. Two marbles are drawn with replacement after each draw. What is the probability that the same color marble is drawn twice?