

FCCU, Computer Science Post Graduate Program
Entrance Exam
Core Data Science Section (Sample Questions)

Question 1: What is the purpose of scatter plot in data visualization?

- a) Displaying distribution of a single variable
- b) Showing relationships between two variables
- c) Comparing multiple datasets
- d) Representing hierarchical data

Answer: b

Question 2: What is the primary goal of unsupervised learning?

- a) Predicting an output variable
- b) Finding patterns or relationships in data
- c) Classifying data into predefined categories
- d) Training a model with labeled data

Answer: b

Question 3: Which of the following is a supervised learning algorithm for classification?

- a) K-Means
- b) Decision Tree
- c) Principal Component Analysis (PCA)
- d) Apriori Algorithm

Answer: b

Question 4: Which chart type is suitable for displaying the distribution of a single variable?

- a) Scatter plot
- b) Histogram
- c) Line chart
- d) Bar chart

Answer: b

Question 5: What is the purpose of the “train-test split” in machine learning?

- a) Training a model with labeled data
- b) Evaluating a model's performance using different datasets
- c) Dividing the dataset into training and testing subsets
- d) Tuning hyperparameters

Answer: c

Question 6: Which statistical test is to determine if there is a significant difference between the means of

the two independent groups?

- a) t-test
- b) ANOVA
- c) Chi-squared test
- d) Pearson correlation

Answer: c

Question 7: Which algorithm is particularly effective for handling text data in machine learning?

- a) Decision Trees
- b) Naïve Bayes
- c) K-mean
- d) Support Vector Machine (SVM)

Answer: b

Question 8: What is the purpose of cross-validation in machine learning?

- a) Training model with multiple algorithms
- b) Evaluation model's performance using different datasets
- c) Combining multiple models into one
- d) Speeding up the training process

Answer: b

Question 9: What is the purpose of an operating system in a computer?

- a) Running applications
- b) Display graphics
- c) Storing data
- d) Managing hardware resources

Answer: d

Question 10: Which data structure follows the Last In, First Out (LIFO) principle?

- a) Stack
- b) Queue
- c) Link List
- d) Tree

Answer: a