

15. Which of the following is a risk of poor data handling by data scientists? 1 K1 CO5
 (a) Overfitting of models (b) Violation of privacy and data breach
 (c) Improved business outcomes (d) Efficient data processing
16. Which phase of CRISP-DM involves understanding the business objectives and constraints? 1 K1 CO5
 (a) Data Preparation (b) Business Understanding
 (c) Evaluation (d) Deployment
17. Which of the following can data analytics in education help with? 1 K1 CO6
 (a) Discovering new planets (b) Predicting student dropout rates
 (c) Automating financial transactions (d) Designing engineering products
18. Which technology is often combined with data science for smart city infrastructure management? 1 K1 CO6
 (a) Internet of Things (IoT) (b) Genetic algorithms
 (c) Blockchain (d) Quantum computing
19. Which of the following data science techniques is often used for real-time player matchmaking in online games? 1 K1 CO6
 (a) Clustering (b) Reinforcement learning
 (c) Regression analysis (d) Data annotation
20. Which data science technique is often used to analyze student performance data in education? 1 K1 CO6
 (a) Time series analysis (b) Regression analysis
 (c) Natural Language Processing (NLP) (d) Reinforcement learning

PART - B (10 × 2 = 20 Marks)

Answer ALL Questions

21. What is the difference between Big Data and Data Science? 2 K1 CO1
22. Define Data Transformation. 2 K1 CO1
23. Why is it so important to pre-process the data before loading it? 2 K1 CO2
24. What is the difference between opening an Excel file and importing it? 2 K1 CO2
25. What is a data frame give example? 2 K1 CO3
26. What is Data Acquisition? 2 K1 CO3
27. Define data wrangling. 2 K1 CO4
28. Why data visualization is important? 2 K1 CO4
29. What is SEMMA methodology? 2 K1 CO5
30. How is machine learning used in bioinformatics? 2 K1 CO6

PART - C (6 × 10 = 60 Marks)

Answer ALL Questions

31. a) Define data science. Discuss the applications of data science with examples. 10 K2 CO1
OR
 b) Explain the Relationship between data warehouse and data science. 10 K2 CO1
32. a) Demonstrate the Pivot Tables and Charts with an example.-VLOOKUP-Dashboard in Spread sheet. 10 K2 CO2
OR
 b) Illustrate the Data Cleaning and Preliminary Data Analysis with an example. 10 K2 CO2
33. a) Explain in detail about data acquisition and its process. 10 K2 CO3
OR
 b) Explain Data Modeling Process. 10 K2 CO3
34. a) Describe about plotting and visualization concepts in python with suitable code and examples. 10 K2 CO4

OR

- b) Explain in details about 10 K2 CO4
(i) Elementary visualization means
(ii) Box plots
(iii) Charts
(iv) Graphs
35. a) Explain the various methodologies used in data analytics. 10 K2 CO5
OR
b) Discuss about the Ethical guidelines for Data Scientist. 10 K2 CO5
36. a) Apply the function in Excel to find the saving percentage of the person who spent 10 % of his salary for rent, 20% of remaining part of his salary for food after which he spent 50 % balance of the salary on other expenditure. 10 K3 CO6
OR
b) Apply a data analytics for employee database data set. 10 K3 CO6