



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I- August 2025

Semester V

Class : III UG

Time : 2 Hours

Branch : Mathematics

Max.Marks : 60

23BMAPA3 - Fundamentals of Data Science

Course Outcomes:

CO1: understand the fundamental concepts of data science.

CO2: learn the concepts of data storage and big data.

CO3: illustrate the different types of process and tools used in data science.

CO4: validate the performance measures on agents and search agencies.

CO5: construct models to make predictions.

Part A

6 x 1 = 6

Choose the Correct Answer

-is the process of protecting corporate data and preventing data loss through unauthorized access. CO1K1
a. Data security b. Data privacy c. both a and b d. auto complete
- Identify the key data science skills among the following. CO1K4
a. data visualization b. machine learning c. statistics d. all the above
- Identify the language which is used in data science. CO2K2
a. C++ b. R c. Java d. Ruby
- Data in bytes size is called big data CO2K3
a. meta b. giga c. tera d. peta
- Which of the following can be generally used to clean and prepare big data? CO3K2
a. pandas b. data lake c. U-SQL d. Data warehouse
- Total groups in which data can be characterized is..... CO3K1
a. 1 b. 2 c. 3 d. 4

Part B

3 x 6 = 18

Answer ALL questions

- 7.a. What are the different key stages in defining a data science project? CO1K3
(or)
- 7.b. What are the methods of data collection. Explain it. CO1K4
- 8.a. Explain the risk of data security. CO2K5
(or)
8. b. What is big data? CO2K1
- 9.a. Explain briefly about data integration. CO3K3
(or)
9. b. What is data cleaning? What are the methods in data cleaning? CO3K4

Part C

3 x 12 = 36

Answer ALL questions

- 10.a. What are the applications of data science in various fields? CO1K5
(or)
- 10.b. What are the different roles in data science? CO1K3
- 11.a. Explain briefly about the combining bytes into larger structures. CO2K5
(or)
- 11.b. What is meant by exploring the data models? CO2K3
- 12.a. What is data pre processing and the key steps in data pre processing? CO3K4
(or)
12. b. What is data reduction? What are the techniques and steps in data reduction? CO3K4

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