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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 1 by UGC
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – May 2025
VI Semester

Class : III UG
Major : Computer Applications

Time : 3 Hours
Max. Marks: 100

21BCAC29 Data Analytics and Business Intelligence

Course Outcomes:

- CO1: Analyze and explore the applications of data analytics.
CO2: Apply statistical techniques for data analysis.
CO3: Discover interesting patterns using data mining techniques.
CO4: Acquire knowledge on business intelligence through data mining.
CO5: Recommend suitable business intelligence tool for industry related problems.

Part A
Choose the Correct Answer

10 x 1 = 10

1. Which of the following is not a major data analysis approaches? CO1 K1
 - a. Data Mining
 - b. Predictive Intelligence
 - c. Business Intelligence
 - d. Text Analytics
2. A good data analytics solution includes a viable self-service _____. CO1 K2
 - a. Data warehouse
 - b. Data mining
 - c. Data wrangling
 - d. Data strorage
3. In descriptive statistics, data from the entire population or a sample is summarized with? CO2 K1
 - a. integer descriptors
 - b. floating descriptors
 - c. numerical descriptors
 - d. decimal descriptors
4. Which of the following is true about regression analysis? CO2 K2
 - a. answering yes/no questions about the data
 - b. estimating numerical characteristics of the data
 - c. modelling relationships within the data
 - d. describing associations within the data
5. Linear Regression is the supervised machine learning model in which the model finds the best fit ____ between the independent and dependent variable. CO3 K3
 - a. Linear line
 - b. Nonlinear line
 - c. Curved line
 - d. Cross line
6. Which of the following refers to the ability to turn your data useful for business? CO3 K2
 - a. Value
 - b. Variety
 - c. Velocity
 - d. verification
7. What is the process of quantifying data? CO4 K2
 - a. Coding
 - b. Structure
 - c. Decoding
 - d. Enumeration
8. Which of the following is not a major data analysis approaches? CO4 K1
 - a. Data Mining
 - b Predictive Intelligence
 - c. Business Intelligence
 - d. Text Analytics
9. _____ is the outcome of extraction and processing activities carried out on data. CO5 K2
 - a. Knowledge
 - b. Information
 - c. Data
 - d. Raw Data
10. Which of the following is not a component of business intelligence analysis cycle? CO5 K1
 - a. Analysis
 - b. Insight
 - c. Decision
 - d. Design

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Examine the different types of data analytics. CO1 K1
(or)
- 11.b. Distinguish between the real time analytics and in-database analytics. CO1 K2
- 12.a. Illustrate the process of build descriptive and predictive models. CO2 K3
(or)
- 12.b. Summarize the function for cross validation. CO2 K2
- 13.a. Explain the difference between star schema and snowflake schema. CO3 K3
(or)
- 13.b. Describe the probability for data mining. CO3 K4
- 14.a. Evaluate the data mining for business intelligence. CO4 K5
(or)
- 14.b. Point out the steps for developing the intelligence model. CO4 K4
- 15.a. Appraise the salient features of Cognos a business intelligence tool. CO5 K5
(or)
- 15.b. Express the main purpose of Infosphere tool. CO5 K6

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Write on in-memory, dynamic analytics and cloud analytics. CO1 K1
(or)
- 16.b. Discuss the techniques to collect, store extract, cleanse, transform, aggregate and analyze data. CO1 K2
- 17.a. Discover the applying linear and nonlinear regression in predictive models. CO2 K3
(or)
- 17.b. Estimate the use of Gaussians maximum likelihood function with example. CO2 K2
- 18.a. Discuss data warehouse architecture. CO3 K3
(or)
- 18.b. Write on data mining functionalities. CO3 K4
- 19.a. Assess the using decision trees and spreadsheet with example. CO4 K5
(or)
- 19.b. Discriminate the principle components of dimensionally. CO4 K5
- 20.a. Conclude the business object for tools for business intelligence. CO5 K4
(or)
- 20.b. Generalize the difference between intelligent miner and XL miner. CO5 K6
