DIPLOMA IN BUSINESS ANALYTICS

ASSIGNMENTS

DBA – 2ND SEMESTER

(SESSON 2024-2025)

Centre for Distance and Online Education (CDOE)
Guru Jambheshwar University of Science & Technology
Hisar - 125001

CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

Course: Predictive and Prescriptive Analytics **Semester: 2nd**
Paper Code: DBA-201 **Total Marks=30**

Important Instructions:

1) Attempt all questions from each assignment given below.
2) Each assignment carries 15 marks.
3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and same is uploaded through login your account.

ASSIGNMENT-I

Q1. What do you mean by Predictive Analytics? What is the role of Predictive analytics in relation to Business Intelligence?

Q2. Explain the concept of Big data and its importance in decision making.

Q3. Write short note on the following:

a) Setting up of Problem-CRISP-DM

b) Linear Regression

ASSIGNMENT-2

Q1. What do you mean by Prescriptive Analytics? What is the role of prescriptive analytics in decision making?

Q2. Explain the meaning, scope and assumptions of linear programming.

Q3. Write short note on the following:

a) Introduction to Integer Programming

b) Degeneracy in transportation models

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CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

Course: Business Research Methods **Semester: 2nd**
Paper Code: DBA-202 **Total Marks=30**

Important Instructions:

1) Attempt all questions from each assignment given below.
2) Each assignment carries 15 marks.
3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and same is uploaded through login your account.

ASSIGNMENT-I

Q1. Discuss the significance of a literature review in research.

Q2. Explain the steps involved in the research process.

Q3. What is a research design? Describe different types of research designs.

ASSIGNMENT-2

Q1. Describe the differences between probability and non-probability sampling techniques.

Q2. What is a questionnaire? What are the characteristics of a good questionnaire?

Q3. What are the essential components of a research proposal?

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CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

Course: Big Data Analytics **Semester: 2nd**
Paper Code: DBA-203 **Total Marks=30**

Important Instructions:

1) Attempt all questions from each assignment given below.
2) Each assignment carries 15 marks.
3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and same is uploaded through login your account.

ASSIGNMENT-I

Q1. Explain the five key features of Big Data (such as Volume, Veracity, Velocity, and Variety) and discuss their significance in data analysis.

Q2. Describe the concepts of cloud computing and grid computing. How do they contribute to the scalability of data analytics?

Q3. Explain the architecture of stream processing. How do techniques like sampling data, filtering streams, play a role in stream-based computing?

ASSIGNMENT-2

Q1. What is the difference between supervised and unsupervised learning in predictive analytics, and how are they applied in Big Data analysis?

Q2. How do hierarchical clustering and K-means clustering techniques differ, and in what scenarios would each be used?

Q3. What is the MapReduce framework, and how does it support the processing of large-scale Big Data in Hadoop?

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CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

Course: Machine Learning **Semester: 2nd**
Paper Code: DBA-204 **Total Marks=30**

Important Instructions:

1) Attempt all questions from each assignment given below.
2) Each assignment carries 15 marks.
3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and same is uploaded through login your account.

ASSIGNMENT-I

Q1. What is machine learning? Explain different types of machine learning with example.

Q2. What is the decision tree algorithm and how to represent Decision Tree? Give an appropriate problem for decision tree learning algorithm

Q3. Explain the attribute selection measures used by the ID3 algorithm to construct a Decision Tree. Also explain the difference between the CART and ID3 Algorithms.

ASSIGNMENT-2

Q1. Describe the Bayesian learning theorem? Explain Naive Bayes Classifier with Practical Problems.

Q2. Short Note on:

a) Support Vector Machine
b) Deep Learning
c) Linear Regression

Q3. Define Artificial Neural Network? Explain Neural Network representation in detail with suitable example. How does the neural networks work and how does the neural network learn?

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CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
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Course: Python Programming **Semester: 2nd**
Paper Code: DBA-205 **Total Marks=30**

Important Instructions:

1) Attempt all questions from each assignment given below.
2) Each assignment carries 15 marks.
3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and same is uploaded through login your account.

ASSIGNMENT-I

Q1. What are identifiers in Python? State the rules for naming identifiers.

Q2. What are the different types of operators in Python? Write expressions using each type of operator and explain the output.

Q3. Explain the syntax and working of the while loop in Python. Write a Python program using a while loop to print the first 10 natural numbers.

ASSIGNMENT-2

Q1. What is inheritance? Write a program that demonstrates inheritance in Python.

Q2. Write SQL queries for Create, Insert, Select, Update, and Delete operations and explain how to execute them in Python.

Q3. Explain with functions like plot(), bar(), pie(), hist(), xlabel(), ylabel(), title(), and legend().

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