NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech.

SEM: V - THEORY EXAMINATION (2022 - 2023)

Subject: Business Intelligence and Data Visualization

Time: 3 Hours   Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A   20

1. Attempt all parts:-

1   KPI stands for? (CO1)   1

               (a) Key Performance Indicators

               (b) Key Performance Identife

               (c) Key Processes Identifer

               (d) OBIEE

1   _____ is a system where operations like data extraction, transformation and loading operations are executed (CO1)   1

               (a) Data staging

               (b) Data integration

               (c) ETL

               (d) Can not say

1   Data Visualisation is the component of (CO2)   1

               (a) Business Intelligence

               (b) RDBMS

(c) OLAP

(d) None of these

1   What is NumPy? (CO2)   1

(a) BI tool

(b) Map

(c) Charts

(d) Python Library

1   Tableau File Extension is_____ (CO3)   1

(a) twbx

(b) twby

(c) twbw

(d) twbz

1   What is SQL? (CO3)   1

(a) language

(b) Datasource filters

(c) database

(d) commands

1   What are the benefits of data visualization? (CO4)   1

(a) Better analysis

(b) Identifying patterns

(c) Exploring business insights

(d) All of the above

1   What are the functions of Data Mining? (CO4)   1

(a) Association and correctional analysis classification

(b) Prediction and characterization

(c) Cluster analysis and Evolution analysis

(d) All of the above

1   What is the recommend method to share your reports? (CO5)   1

(a) Publish them to the Power BI service

(b) Create a PDF of the report, and share the PDF with others

(c) Copy the .PBIX file to a file folder, and give coworkers access to that folder

(d) None

1   What is the SQL command to return the values from a table? (CO5) 1

     (a) SELECT

     (b) WHERE

     (c) DISTINCT

     (d) ORDER BY

2. Attempt all parts:-

2.a.   What is the difference between data, information and knowledge? (CO1) 2

2.b.   Define BI Reporting' (CO2) 2

2.c.   State some ways to improve the performance of Tableau. (CO3) 2

2.d.   Explain an outlier. How would you address outliers? (CO4) 2

2.e.   Define Power BI Desktop. (CO5) 2

<div align="center">SECTION B 30</div>

3. Answer any <u>five</u> of the following:-

3   Describe the process of knowledge creation. (CO1) 6

3   What are the major applications of Power BI? Explain each one of them in detail. CO1) 6

3   Explain difference between Dashboard and Reports (CO2) 6

3   Describe data exploration? Explain its compatibilty with drill down procedure. (CO2) 6

3.e.   Write the differences between Tableau and MS Excel with respect to designing. (CO3) 6

3.f.   Why is it important for data scientists to focus on storytelling and presentation skills? Justify your answer with example. (CO4) 6

3.g.   How to sort data in Power BI and what types of sorting used in power BI. (CO5) 6

<div align="center">SECTION C 50</div>

4. Answer any <u>one</u> of the following:-

4   What are the critical components of the Power BI toolkit? Explain in detail. (CO1) 10

4   Describe data modeling explain with example. (CO1) 10

5. Answer any <u>one</u> of the following:-

5   How to build a successful Business Intelligence strategy? Write step by step procedure of it. (CO2) 10

5   Differnce between Business Intelligence and Business Analytics with an example. (CO2) 10

6. Answer any <u>one</u> of the following:-

6	Describe Manupulating of data in Tableau in detail. (CO3)	10
6	State some ways to improve the performance of Tableau. What is the difference between published data and embedded data sources in Tableau? (CO3)	10

7. Answer any <u>one</u> of the following:-

7	Explain the process of exporting a file in Tableau. Write the step by step Procedure. (CO4)	10
7	Describe infographics in detail Why it used for Data Storytelling justify your answer with example. (CO4)	10

8. Answer any <u>one</u> of the following:-

8	Elaborate Forecast in Power BI. (CO5)	10
8	How would you gather dashboard requirements from stakeholders? (CO5)	10