NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)
B.Tech
SEM: VI - THEORY EXAMINATION (2023 **- 20**24 **)**
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-a.   KPI stands for _____ (CO1)   1

    (a)   Key Performance Indicators

    (b)   Key Performance Identife

    (c)   Key Processes Identifer

    (d)   OBIEE

1-b.   Select the areas are affected by BI (CO1)   1

    (a)   Revenue

    (b)   CRM

    (c)   Sales

    (d)   All Of Above

1-c.   Data Visualisation is the component of (CO2)   1

    (a)   Key Performance Indicators

    (b)   Key Performance Identife

    (c)   Key Processes Identifer

    (d)   OBIEE

1-d.   NumPy is (CO2)   1

    (a)   Revenue

    (b)   CRM

    (c)   Sales

(d) All Of Above

1-e. The discrete field in Tableau can be determined by (CO3)   1

(a) Green color

(b) symbol

(c) Blue color

(d) None

1-f. Tableau File Extension is_____ (CO3)   1

(a) twbx

(b) twby

(c) twbw

(d) twbz

1-g. Data visualization is also an element of the broader _____.(CO4)   1

(a) Deliver presentation architecture

(b) Data presentation architecture

(c) Dataset presentation architecture

(d) Data process archietecture

1-h. Data visualization tools provide an accessible way to see and understand   1
.... in data. (CO4)

(a) Trends

(b) Outliers

(c) Patterns

(d) All of the above

1-i. The recommended method to share your reports is (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-j. Choose which symbol would you use for Modulo in Power BI in a DAX   1
formula (CO5)

(a) +

(b) −

(c) /

(d) %

2. Attempt all parts:-

2.a. Define business intelligence with example.(CO1)   2

2.b. Define Scorecard .(CO2)   2

2.c. Define Heat Map.(CO3)   2

2.d. Define Tooltip in Tableau.(CO4)   2

| 2.e. | Define Self-service BI with help of an example. (CO5) | 2 |

SECTION-B 30

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

3-c.	Explain SDK in detail with example.(CO2)	6
3-a.	Discuss "Will Business Intelligence become more accessible to non-technical users in the future".(CO1)	6
3-d.	Differenciate between .twb and .twbx extension. (CO2)	6
3-b.	Draw and explain business intelligence architecture. (CO1)	6
3.e.	Mention various types of functions commonly used in Tableau. (CO3)	6
3.f.	Explain in detail about Pivoting data in Tableau. (CO4)	6
3.g.	Describe the KPIs indicate in the context of Power BI. (CO5)	6

SECTION-C 50

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

| 4-a. | Explain some of the challenges faced while implementing a Data Warehouse. (CO1) | 10 |
| 4-b. | Differenciate between BI traditional tools with Modern BI tools in detail. (CO1) | 10 |

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

| 5-a. | Define risk management and how does it apply to business intelligence.(CO2) | 10 |
| 5-b. | Describe data exploration. Explain its compatibility with drill down procedure.(CO2) | 10 |

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

| 6-a. | Write the differences between Tableau and MS Excel with respect to designing.(CO3) | 10 |
| 6-b. | Write the procedure installation of Tableau. Explain in detail. (CO3) | 10 |

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

| 7-a. | As a data scientist, why would you want to use an infographic instead of a simple chart or table justify your answer with example.(CO4) | 10 |
| 7-b. | Explain the benefits of Data Story Telling.(CO4) | 10 |

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

| 8-a. | Describe how Power BI Mobile fits into the Power BI ecosystem and its key features. (CO5) | 10 |
| 8-b. | Explain how to change the date format in Power BI Query Editor.(CO5) | 10 |