NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)
B.Tech
SEM: VI - THEORY EXAMINATION (2023 - 2024)
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.   The purpose of OLAP in BI architecture is ? [CO1]   1

   (a)   To store and manage data

   (b)   To visualize data

   (c)   To generate reports

   (d)   To perform complex queries

1-b.   Business intelligence equips enterprises to gain business advantage from data.   1
          [CO1]

   (a)   TRUE

   (b)   False

   (c)   Can be true or false

   (d)   Can not say

1-c.   The purpose of a KPI (key performance indicator) is [CO2]   1

   (a)   To store and manage data

   (b)   To analyze data

   (c)   To generate reports

   (d)   To communicate insights

1-d.   Mobile Business Intelligence is ? [CO2]   1

   (a)   Data visualisation tools

   (b)   BI Tools

(c)   Data representation tool

(d)   All of the 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.   Global filters can be applied by [CO3]   1

(a)   Dashboards

(b)   Stories

(c)   Sheets

(d)   All of the above

1-g.   Data can be visualized using--------------------.[CO4]   1

(a)   Graphs

(b)   Charts

(c)   Maps

(d)   All of the above

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.   Tableau is [CO5]   1

(a)   A spreadsheet program

(b)   A data visualization and business intelligence tool

(c)   A database management system

(d)   An email client

1-j.   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

2. Attempt all parts:-

2.a.   State the advantages of making decision using business intelligence over making   2
decision without business intelligence.[CO1]

2.b.   Define Dashboard.[CO2]   2

2.c.   Define TreeMap.[CO3]   2

| 2.d. | Define Tooltip in Tableau.[CO4] | 2 |
| 2.e. | Define are the versions of Power BI.[CO5] | 2 |

SECTION-B   30

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

3-a.	Explain how format of a BI report is different from a traditional report [CO1].	6
3-b.	Explain how mobile BI contribute to the overall effectiveness of a BI solution ? [CO1]	6
3-c.	Explain SDK in detail with example.[CO2]	6
3-d.	Briefly explain stages of business intelligence. [CO2]	6
3.e.	Discuss Dimensions and Measures in Tableau. Explain with an example.[CO3]	6
3.f.	Explain the basic types of basic filters used in Tableau .[CO4]	6
3.g.	Describe the Power BI ecosystem [CO5]	6

SECTION-C   50

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

| 4-a. | Describe Data Warehouse, Data mart and OLAP in detail also differentiate between them.[CO1] | 10 |
| 4-b. | Differentiate between Business Intelligence and Data Warehouse.[CO1] | 10 |

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

| 5-a. | Write the step by step procedure of designing a BI Project .[CO2] | 10 |
| 5-b. | Define risk management and how does it apply to business intelligence.[CO2] | 10 |

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

| 6-a. | Explain various advantages and disadvantages of Tableau and benefits of Tableau.[CO3] | 10 |
| 6-b. | Write the procedure of making line chart in Tableau and its advantages.[CO3] | 10 |

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

| 7-a. | Explain different design display on Dashboards in Tableau? [CO4] | 10 |
| 7-b. | Explain in detail about File types in Tableau.[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. | Give some advantages of using Power BI over traditional spreadsheet tools ? [CO5] | 10 |