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Subject Code:- ACSAI0619

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**NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA**

**(An Autonomous Institute Affiliated to AKTU, Lucknow)**

**B.Tech**

**SEM: VI - 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-a. KPI stands for \_\_\_\_\_ (CO1) 1
- (a) Key Performance Indicators
- (b) Key Performance Identife
- (c) Key Processes Identifier
- (d) OBIEE
- 1-b. \_\_\_\_\_ is the heart of the warehouse (CO1) 1
- (a) Data mining database servers
- (b) Data mart database servers
- (c) Data warehouse database servers
- (d) None
- 1-c. Choose which is a common way to handle missing or incomplete data in business intelligence tools (CO2) 1
- (a) Data mining database servers
- (b) Data mart database servers

- (c) Data warehouse database servers
- (d) Artificial intelligence
- 1-d. Dashboard is (CO2) 1
- (a) Data mart
- (b) Data mining
- (c) Business intelligence
- (d) DBMS
- 1-e. Choose from the following which is NOT a Tableau Field data type (CO3) 1
- (a) String
- (b) Number (whole)
- (c) Boolean
- (d) Float
- 1-f. A measure in Tableau is (CO3) 1
- (a) A numeric field that can be aggregated
- (b) A categorical field that cannot be aggregated
- (c) A geographic field that can be plotted on a map
- (d) A geographic field that can't be plotted on a map
- 1-g. Choose which is not a step in the data cleaning process (CO4) 1
- (a) Structuring the data
- (b) Sorting the data
- (c) Filtering the data
- (d) Visualizing the data
- 1-h. Choose from the following which is not a sorting option in Tableau (CO4) 1
- (a) Ascending
- (b) Descending
- (c) Random
- (d) Alphabetical
- 1-i. Type of data modeling in Power BI that Uses Data Analysis Expressions and similar to Excel formulas\_ (CO5) 1
- (a) Query
- (b) DAX
- (c) Model
- (d) None

- 1-j. KPI charts are designed to \_\_\_\_ the progress towards accomplishing a specific goal or target. (CO5) 1
- (a) Visualise
  - (b) Measures
  - (c) Organised
  - (d) None

**2. Attempt all parts:-**

- 2.a. Define BI tool. (CO1) 2
- 2.b. List some potential costs associated with implementing a business intelligence solution. (CO2) 2
- 2.c. Assign the Hierarchy in Tableau. (CO3) 2
- 2.d. Define Pivot . (CO4) 2
- 2.e. Explain advantage and disadvantages of Power BI. (CO5) 2

**SECTION B**

**30**

**3. Answer any five of the following:-**

- 3-a. Explain how mobile BI contribute to the overall effectiveness of a BI solution. (CO1) 6
- 3-b. Discuss how BI solutions help organizations in making better decisions. (CO1) 6
- 3-c. Explain risk management and risk mitigation. (CO2) 6
- 3-d. Write real world example of business intelligence Project . (CO2) 6
- 3.e. Differentiate between Power BI and tableau. (CO3) 6
- 3.f. Explain difference between data journalism and data storytelling with suitable example. (CO4) 6
- 3.g. Explain the types of visualizations in Power BI. Explain in detail with diagram. (CO5) 6

**SECTION C**

**50**

**4. Answer any one of the following:-**

- 4-a. Describe Data Warehouse, Data mart and OLAP in detail and differentiate between them. (CO1) 10
- 4-b. Describe the analytical operations that OLAP can perform. (CO1) 10

**5. Answer any one of the following:-**

- 5-a. Draw the flowgraph of designing BI Project. (CO2) 10
- 5-b. Explain how is SDK is interrelated to BI Tools. (CO2) 10

**6. Answer any one of the following:-**

- 6-a. Explain in details about data dimension and parameters in Tableau. (CO3) 10
- 6-b. Write difference between heat map and tree- map in Tableau with example (CO3) 10

**7. Answer any one of the following:-**

- 7-a. Is Tableau for MacOS available. If yes, Justify your reason. (CO4) 10
- 7-b. State the different connections you can make with your dataset . (CO4) 10

**8. Answer any one of the following:-**

- 8-a. Elaborate about Workspace in Power BI. (CO5) 10
- 8-b. Discuss how the power BI products integrate in detail. (CO5) 10

2022-23 Jan\_June