QPC: RN20BTECH665 AR 20 Reg. No | | | | | | | | | | |

GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Seventh Semester – Regular) Examinations, November – 2023

BPECS7032 / BPECT7022 – Big Data Visualization

(CSE,CST)

Time: 3 hrs Maximum: 70 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions) **(1 x 10 = 10 Marks)**

Q.1. Answer ***ALL*** questions [CO#] [PO#]

a. Which is used to query and edit graphical settings? CO1 PO1
(i) cum() (ii) plot()
(iii) par() (iv) anova()

b. Which of the following describes Data Visualization? CO2 PO1
(i) Eyesight oriented (ii) Easy to understand
(iii) Quick to learn (iv) All of these

c. Common use cases for data visualization include? CO3 PO1
(i) Politics (ii) Sales and marketing
(iii) Healthcare (iv) All of the above

d. Which of the following does D3.js NOT use? CO2 PO1
(i) Java script (ii) CCS
(iii) SVG (iv) HTML

e. Big Data is generally characterised by three Vs that stand for _____, _____ and _____. CO1 PO1
(i) Volume; Viscosity; Variety (ii) Variety; Velocity; Vivid
(ii) Viscosity; Volume; Velocity (iv) Volume; Variety; Velocity

f. Transaction of data of the bank is a type of. CO1 PO1
(i) Unstructured data (ii) Structured Data
(iii) Both a and b (iv) None of theses

g. How you cannot optimize the performance of a dashboard? CO3 PO2
(i) By increasing number of filters (ii) Use context filter
(iii) Use Boolean Calculations (iv) Remove unneeded dimension

h. Which of the following is not a part of the data science process. CO3 PO2
(i) Communication building (ii) Discovery
(iii) Operationalize (iv) Model Planning

i. Which function cannot be used to import a CSV file in R? CO4 PO2
(i) read.table() (ii) read.csv()
(iii) read.excel() (iv) None of these

j. Data visualization tools provide an accessible way to see and understand ..... in data. CO4 PO1
(i) Trends (ii) Outliers
(iii) Patterns (iv) All of theses

PART – B: (Short Answer Questions) **(2 x 10 = 20 Marks)**

Q.2. Answer ***ALL*** questions [CO#] [PO#]

a. Name any four tools used in Big Data Visualization. CO1 PO1
b. Define Big data with an example. CO1 PO1
c. Explain about d3.js Scales. CO3 PO2
d. Differentiate between exploration and explanation. CO2 PO2

e.	Mention what is the difference between jQuery and d3.js.	CO2	PO2
f.	Explain the concept of data manager.	CO2	PO1
g.	Explain different connection types in Tableau.	CO4	PO2
h.	Exemplify on visualization tools.	CO3	PO2
i.	Differentiate Comparisons and Contrasts	CO2	PO1
j.	Give an example on visualization sample template.	CO4	PO1

PART – C: (Long Answer Questions) **(10 x 4 = 40 Marks)**

Answer ***ALL*** questions		Marks	[CO#]	[PO#]
3. a.	Differentiate among Informative versus Persuasive versus Visual Art.	5	CO1	PO3
b.	Describe the common Approaches to big data visualization.	5	CO1	PO2
	(OR)			
c.	Explain in detail about Nature of Data and its applications.	5	CO1	PO1
d.	Differentiate between Infographics versus Data Visualization.	5	CO1	PO2
4. a.	Give an example on Defaults versus Innovative Formats.	5	CO2	PO2
b.	State some ways to improve the performance of Tableau.	5	CO3	PO2
	(OR)			
c.	Explain about the visualization techniques in big data.	5	CO2	PO1
d.	Do we have any way to handle null values in Tableau?	5	CO3	PO2
5. a.	Describe the need of visual encoding, explain its types.	5	CO2	PO2
b.	Explain about the purpose of using a dashboard for data visualization.	5	CO3	PO1
	(OR)			
c.	Explain the concept of re-colouring and resizing in visualization.	5	CO3	PO2
d.	Design a pie chart with R with Slice Percentages and Chart Legend x <- c(21, 62, 10,53) labels <- c("London","New York","Singapore","Mumbai")	5	CO2	PO4
6. a.	Define Data visualization showing the stacked view with an example.	5	CO4	PO3
b.	Explain designing a Bar Chart using D3.	5	CO4	PO4
	(OR)			
c.	Briefly explain Visualization using HTML document.	5	CO4	PO2
d.	Explain DataManager Command Line Options.	5	CO3	PO2

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