

CMR Technical Campus

B.Tech Mid Question Bank (R22 Regulation)

Academic Year: 2025-26

Semester: VIII

Subject Name: Data Visualization Using Python

Faculty Name: B.Aditya, Bushra Tarannum

PART-A

Q.No	Questions	BL	CO	Unit No
1	Define data visualization and state its main goal.	BL 1	CO1	1
2	List any two advantages of using visualizations in data analysis.	BL 1	CO1	1
3	What is Matplotlib? Name one alternative Python visualization library.	BL 2	CO1	1
4	What is meant by an interactive plot? Give one example of interaction.	BL 2	CO1	1
5	What is a Pandas DataFrame?	BL 2	CO2	2
6	Write one method to read tabular data into a DataFrame.	BL 1	CO2	2
7	Name two built-in plotting functions available via DataFrame.plot().	BL 1	CO2	2
8	Mention any two main components of a Matplotlib figure hierarchy.	BL 2	CO2	2
9	What is Seaborn and on which library is it built?	BL 2	CO3	3
10	Define Altair Datatypes.	BL 1	CO3	3

PART-B

Q.No	Questions	BL	CO	Unit No
1	Explain four best practices for designing clear and effective visualizations.	BL2	CO 1	1
2	Write a short note on JavaScript/JSON/WebGL in web-based data visualization.	BL2	CO 1	1
3	Identify the differences between line plot, bar chart, scatter plot and histogram.	BL3	CO 1	1
4	Discuss advantages and limitations of 3D plots compared to 2D plots.	BL4	CO 1	1
5	Explain the concept of grids and meshes in numerical computing and data	BL2	CO 1	1

	visualization. Explain the use of mesh grids in plotting 3D surfaces.			
6	Discuss different plot categories (statistical, images, networks, geographical, 3D, interactive) and explain where each is most appropriate.	BL4	CO 1	1
7	Explain how to Create and Manipulate a DataFrames in Pandas with suitable Examples	BL3	CO 2	2
8	Describe two ways of handling missing values in a DataFrames before visualization.	BL2	CO 2	2
9	What is subplotting in Matplotlib?	BL2	CO 2	2
10	List the advantages and limitations of using Pandas' built-in plotting compared with using Matplotlib directly?	BL2	CO 2	2
11	Explain data visualization using Pandas in detail.	BL2	CO 2	2
12	Explain the anatomy of a Matplotlib plot and also Discuss at least four customization options for Matplotlib plots	BL4	CO 2	2
13	Explain the features of Seaborn.	BL2	CO3	3
14	Discuss the categories of Seaborn plots: relational, distribution and categorical, with one example each.	BL2	CO3	3
15	Explain the roles of data, mark and encoding in Altair with a simple chart description.	BL2	CO3	3
16	Write a short notes on setting global configuration or themes in Altair.	BL2	CO3	3

CMR Technical Campus

B.Tech Mid Question Bank (R22 Regulation)

Academic Year: 2025-26

Semester: VIII

Subject Name: Robotic Process Automation

Faculty Name: Mr. A Ramesh

PART-A

Q.No	Questions	BL	CO	Unit No
1	Define Robotic Process Automation (RPA).	BL 1	CO1	1
2	Mention any two scopes of automation.	BL 1	CO1	1
3	Name any two popular RPA platforms.	BL 1	CO1	1
4	Mention the types of UiPath Robots.	BL 1	CO1	1
5	Define project organization in RPA and mention one benefit.	BL 1	CO2	2
6	State two differences between Sequence and Flowchart	BL 1	CO2	2
7	What are Activities in RPA?	BL 1	CO2	2
8	What is the purpose of the Switch activity ?	BL 1	CO2	2
9	What is meant by <i>finding and attaching windows</i> in RPA?	BL 1	CO3	3
10	What is OCR and when is it used in automation?	BL 1	CO3	3

PART-B

Q.No	Questions	BL	CO	Unit No
1	Describe the scope and techniques of automation with suitable examples.	BL2	CO 1	1
2	Explain the components of RPA architecture.	BL2	CO 1	1
3	Discuss various RPA platforms and explain why UiPath is widely used.	BL3	CO 1	1
4	Explain the Task Recorder and its advantages.	BL4	CO 1	1
5	Explain the Task Recorder and its advantages. Explain the UiPath stack: UiPath Studio, UiPath Robot, and UiPath	BL2	CO 1	1

	Orchestrator.			
6	Describe input methods and output methods used in UiPath automation.	BL4	CO 1	1
7	Explain how sequencing a workflow affects the overall process flow.	BL3	CO 2	2
8	Describe different types of loops used in RPA.	BL2	CO 2	2
9	Explain the process of Excel to Data Table and vice versa.	BL2	CO 2	2
10	Construct the steps involved in the File operations using UiPath.	BL2	CO 2	2
11	Identify the role of variables in data manipulation within RPA. Apply this knowledge by providing examples of how variables can be used to store and process data in a specific automation task, such as data extraction from a web form.	BL3	CO 2	2
12	Describe how to read a CSV file into a Data Table.	BL4	CO 2	2
13	Explain finding and attaching windows in UiPath.	BL2	CO3	3
14	Describe different techniques for waiting for a control.	BL2	CO3	3
15	Explain the Recorder in UiPath and why it is revisited.	BL2	CO3	3
16	What is meant by handling events in RPA? Explain with an example.	BL2	CO3	3

Department of CSE (AI & ML)
B.Tech Mid Question Bank (R22 Regulation)

Academic Year:2025-26

Semester: VIII

Subject Name: Web Security

Faculty Name: M.Lalitha

PART-A

Q.No	Questions	BL	CO	Unit No
1	Define Web Security.	L1	CO1	I
2	What is Risk Analysis?	L1	CO1	I
3	What is Digital Identification?	L2	CO1	I
4	State two cryptographic protocols used on the web.	L2	CO1	I
5	Define Web Privacy.	L1	CO2	II
6	Mention two privacy-protecting techniques.	L1	CO2	II
7	What is Web Server Security?	L2	CO2	II
8	Define Host Security.	L2	CO2	II
9	Define Access Control in databases.	L1	CO3	III
10	What is Trust Negotiation?	L2	CO3	III

PART-B

Q.No	Questions	BL	CO	Unit No
1	Explain the Web Security Problem.	L3	CO1	I
2	Describe Risk Analysis and Best Practices in Web Security.	L4	CO1	I
3	Write Best Practices of web security	L2	CO1	I
4	Write Major Threats in web Security?	L2	CO1	I
5	Explain Cryptographic Systems and Protocols used in Web Security.	L3	CO1	I
6	Discuss Legal Restrictions on Cryptography and Digital Identification.	L4	CO1	I

7	Explain Privacy-Protecting Techniques used on the Web.	L3	CO2	II
8	Explain the importance of Web Privacy in online systems.	L3	CO2	II
9	Explain the need for backups in organizations.	L3	CO2	II
10	Describe Backups and Anti-Theft mechanisms.	L4	CO2	II
11	Explain Physical and Host Security for Servers.	L3	CO2	II
12	Discuss methods to Secure Web Applications.	L4	CO2	II
13	Explain Recent Advances in Access Control.	L3	CO3	III
14	Describe Access Control Models for XML.	L4	CO3	III
15	Explain Trust Management and Trust Negotiation in Databases.	L3	CO3	III
16	Discuss Security Issues in Data Warehouses and OLAP Systems.	L4	CO3	III