ANSWER ALL THE QUESTIONS (60 MARKS)

REGISTER NUMBER	23316101	NAME	ABIRAMI M
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To create different types of graphs for user inputs.

a) Line graph

- b) Line Graph with style
- c)Bar Graph (Horizontal and vertical)
- d) Histogram

e) Scatter Plot.

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)	

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE QUESTIONS (60 MARKS) REGISTER NUMBER 23316102 NAME AJAY.G SUBJECT CODE 23PMBN12 SUBJECT DATA VISUALIZATION NAME USING R AND PYTHON

TIME &

DATE

(IBM)

09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and mtcars dataset using the dplyr package and obtain the results for the following functions.

i) filter ii) select iii) arrange iv) summarize v) mutate

MBA BUSINESS

ANALYTICS

DEGREE/BRANCH

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** 23316103 ARAVIND J NAME **REGISTER NUMBER** 23PMBN12 SUBJECT CODE **SUBJECT** DATA VISUALIZATION NAME USING R AND PYTHON (IBM) 09.30 AM & 05.12.23 MBA BUSINESS DEGREE/BRANCH TIME & ANALYTICS DATE

To Create a data frame and do the following operations using tidyr package.

i)gather ii) spread iii) separate iv) unite

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

	`		
REGISTER NUMBER	23316104	NAME	ARUL SELVAN M
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and air quality dataset using data. table package and obtain the results for the following functions.

- a. Select a subset row
- b. Select a column with particular values
- c. Select columns with multiple values
- d. Select a column to return a vector
- e. Select multiple columns
- f. Returns the sum and standard deviation
- g. Sum of selected columns

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE **QUESTIONS (60 MARKS)** REGISTER NUMBER 23316105 NAME ARUN KUMAR KR SUBJECT CODE 23PMBN12 **SUBJECT** DATA VISUALIZATION NAME USING R AND PYTHON (IBM) DEGREE/BRANCH 09.30 AM & 05.12.23 MBA BUSINESS TIME & ANALYTICS DATE

To do the different visualization types for air quality data set using the ggplot package in R.

- a. Line graph
- b. Bar graph
- c. Histogram
- d. Scatter plot
- **e.** Pie chart

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

	QCESTIONS (0	WIAKKS)	
REGISTER NUMBER	23316106	NAME	GOKUL K
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To write a Program to create maps with markers and Chropleth maps with Folium.

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** REGISTER NUMBER 23316107 JANAKI MAKESH NAME SUBJECT CODE 23PMBN12 **SUBJECT** DATA VISUALIZATION USING R AND PYTHON NAME (IBM) 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS TIME & ANALYTICS DATE To create different types of graphs for user inputs. b) Line Graph with style a) Line graph c)Bar Graph (Horizontal and vertical) d) Histogram e) Scatter Plot. Aim, algorithm and Output & Total (60) Explanation (25) RESULT (15),Viva (20)

ANSWER ALL THE QUESTIONS (60 MARKS)

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REGISTER NUMBER	23316108	NAME	KARAN KUMAR R
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and mtcars dataset using the dplyr package and obtain the results for the following functions.

i)filter ii) select iii) arrange iv) summarize v) mutate

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION **ANSWER ALL THE QUESTIONS (60 MARKS)** 23316109 **REGISTER NUMBER** NAME LOKESH KUMAR D H SUBJECT CODE 23PMBN12 SUBJECT DATA VISUALIZATION USING R AND PYTHON NAME (IBM) DEGREE/BRANCH MBA BUSINESS TIME & 09.30 AM & 05.12.23 ANALYTICS DATE

To Create a data frame and do the following operations using tidyr packa
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i)gather ii) spread iii) separate iv) unite

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

QUESTIONS (UU MARKS)			
REGISTER NUMBER	23316110	NAME	MERLIN JOSEPHINA E
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and air quality dataset using data. table package and obtain the results for the following functions.

- a. Select a subset row
- b. Select a column with particular values
- c. Select columns with multiple values
- d. Select a column to return a vector
- e. Select multiple columns
- f. Returns the sum and standard deviation
- g. Sum of selected columns

Aim, algor,ithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE **QUESTIONS (60 MARKS) REGISTER NUMBER** 23316111 NAME MOHANARAM A SUBJECT CODE 23PMBN12 SUBJECT DATA VISUALIZATION USING R AND PYTHON NAME (IBM) 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS TIME &

DATE

5. To do the different visualization types for air quality data set using the ggplot package in R.

ANALYTICS

- a. Line graph
- b. Bar graph
- c. Histogram
- d. Scatter plot
- e. Pie chart

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE **QUESTIONS (60 MARKS)** NAVAGEEVAN G REGISTER NUMBER 23316112 NAME SUBJECT CODE 23PMBN12 **SUBJECT** DATA VISUALIZATION NAME USING R AND PYTHON (IBM) 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS TIME & ANALYTICS DATE To write a Program to create maps with markers and Chropleth maps with Folium. Aim, algorithm and Output & Total (60) Explanation (25) RESULT (15),Viva (20)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** 23316113 NAME NAVEEN VIKASH R **REGISTER NUMBER** 23PMBN12 SUBJECT CODE SUBJECT DATA VISUALIZATION NAME USING R AND PYTHON (IBM) MBA BUSINESS 09.30 AM & 05.12.23 DEGREE/BRANCH TIME & ANALYTICS DATE To create different types of graphs for user inputs. b) Line Graph with style a) Line graph c)Bar Graph (Horizontal and vertical) d) Histogram e) Scatter Plot. Aim, algorithm and Total (60) Output & Explanation (25) RESULT (15),Viva (20)

ANSWER ALL THE QUESTIONS (60 MARKS)

Q025110115 (00 1/111115)			
REGISTER NUMBER	23316114	NAME	PARANTHAMAN S
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and mtcars dataset using the dplyr package and obtain the results for the following functions.

i)filter ii) select iii) arrange iv) summarize v) mutate

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE **QUESTIONS (60 MARKS)** PAVITHRA S REGISTER NUMBER 23316115 NAME SUBJECT CODE 23PMBN12 SUBJECT DATA VISUALIZATION NAME USING R AND PYTHON (IBM) MBA BUSINESS 09.30 AM & 05.12.23 DEGREE/BRANCH TIME & **ANALYTICS** DATE To Create a data frame and do the following operations using tidyr package. i)gather ii) spread iii) separate iv) unite Aim, algorithm and Output & Total (60) Explanation (25) REŜULT (15), Viva (20)

ANSWER ALL THE QUESTIONS (60 MARKS)

REGISTER NUMBER	23316116	NAME	PRAVEENA B
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and air quality dataset using data. table package and obtain the results for the following functions.

- a. Select a subset row
- b. Select a column with particular values
- c. Select columns with multiple values
- d. Select a column to return a vector
- e. Select multiple columns
- f. Returns the sum and standard deviation
- g. Sum of selected columns

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

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REGISTER NUMBER	23316117	NAME	RAGUL D
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To do the different visualization types for air quality data set using the ggplot package in R.

- a. Line graph
- b. Bar graph
- c. Histogram
- d. Scatter plot
- e. Pie chart

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE **QUESTIONS (60 MARKS) REGISTER NUMBER** NAME RAJKUMAR S 23316118 SUBJECT CODE 23PMBN12 SUBJECT DATA VISUALIZATION NAME USING R AND PYTHON (IBM) 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS TIME & ANALYTICS DATE To write a Program to create maps with markers and Chropleth maps with Folium. Aim, algorithm and Output & Total (60) Explanation (25) **RESULT** (15),Viva (20)

ANSWER ALL THE QUESTIONS (60 MARKS)

	` `		
REGISTER NUMBER	23316119	NAME	SANJEEVIRAM R P
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To create different types of graphs for user inputs.

a) Line graph

- b) Line Graph with style
- c)Bar Graph (Horizontal and vertical) d) Histogram
- e) Scatter Plot.

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

	C = 12	/	
REGISTER NUMBER	23316120	NAME	SATHISH KUMAR K
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and mtcars dataset using the dplyr package and obtain the results for the following functions.

i)filter ii) select iii) arrange iv) summarize v) mutate

Aim, algorithm, and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** 23316121 **NAME** SHARON CARMEL L **REGISTER NUMBER** 23PMBN12 SUBJECT CODE **SUBJECT** DATA VISUALIZATION **NAME** USING R AND PYTHON (IBM) 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS TIME & ANALYTICS DATE To Create a data frame and do the following operations using tidyr package. i)gather ii) spread iii) separate iv) unite Aim, algorithm and Output & Total (60) Explanation (25) **RESULT** (15),Viva (20)

ANSWER ALL THE QUESTIONS (60 MARKS)

	Q 02221018 (001212122)					
REGISTER NUMBER	23316122	NAME	SUWEKA SUYAMBURAJ			
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)			
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23			

To Do the data manipulation operations for the iris and air quality dataset using data. table package and obtain the results for the following functions.

- a. Select a subset row
- b. Select a column with particular values
- c. Select columns with multiple values
- d. Select a column to return a vector
- e. Select multiple columns
- f. Returns the sum and standard deviation
- g. Sum of selected columns

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS UNIVERSITY LAB EXAMINATION ANSWER ALL THE QUESTIONS (60 MARKS) REGISTER NUMBER 23316123 NAME TARIQ ANWAR A

SUBJECT

TIME &

DATE

NAME

DATA VISUALIZATION

USING R AND PYTHON

09.30 AM & 05.12.23

(IBM)

To do the different visualization types for air quality data set using the ggplot package in R.

23PMBN12

MBA BUSINESS

ANALYTICS

a. Line graph

SUBJECT CODE

DEGREE/BRANCH

- b. Bar graph
- c. Histogram
- d. Scatter plot
- e. Pie chart

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** 23316124 VASANTHA LAXMI S **NAME REGISTER NUMBER** 23PMBN12 SUBJECT CODE **SUBJECT** DATA VISUALIZATION NAME USING R AND PYTHON (IBM) 09.30 AM & 05.12.23 MBA BUSINESS TIME & DEGREE/BRANCH ANALYTICS DATE To write a Program to create maps with markers and Chropleth maps with Folium.

Output &

RESULT (15), Viva (20) Total (60)

Aim, algorithm and

Explanation (25)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** ARUN RAJ M 23316125 NAME **REGISTER NUMBER** 23PMBN12 SUBJECT CODE **SUBJECT** DATA VISUALIZATION NAME USING R AND PYTHON (IBM) 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS TIME & ANALYTICS DATE To create different types of graphs for user inputs. b) Line Graph with style a) Line graph c)Bar Graph (Horizontal and vertical) d) Histogram e) Scatter Plot. Aim, algorithm and Output & Total (60) Explanation (25) **RESULT** (15),Viva (20)

ANSWER ALL THE QUESTIONS (60 MARKS)

REGISTER NUMBER	23316126	NAME	ELAVARASI V
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To Do the data manipulation operations for the iris and mtcars dataset using the dplyr package and obtain the results for the following functions.

i)filter ii) select iii) arrange iv) summarize v) mutate

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Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

	`		
REGISTER NUMBER	23316127	NAME	HARITHA N
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

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T	Cicate a	uata	mame	and (ao u	CIO	10 WIII g	operations	using	uuyi	package.

i)gather ii) spread iii) separate iv) unite

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

`					
REGISTER NUMBER	23316128	NAME	KEERTHI A		
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)		
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23		

To Do the data manipulation operations for the iris and air quality dataset using data. table package and obtain the results for the following functions.

- a. Select a subset row
- b. Select a column with particular values
- c. Select columns with multiple values
- d. Select a column to return a vector
- e. Select multiple columns
- f. Returns the sum and standard deviation
- g. Sum of selected columns

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

ANSWER ALL THE QUESTIONS (60 MARKS)

	-	-	
REGISTER NUMBER	23316129	NAME	RITHIKA A
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23

To do the different visualization types for air quality data set using the ggplot package in R.

- a. Line graph
- b. Bar graph
- c. Histogram
- d. Scatter plot
- e. Pie chart

Aim, algorithm and Explanation (25)	Output & RESULT (15), Viva (20)	Total (60)

MBA BUSINESS ANALYTICS, VISTAS **UNIVERSITY LAB EXAMINATION** ANSWER ALL THE **QUESTIONS (60 MARKS)** REGISTER NUMBER 23316130 NAME SHRUTHIKA A SUBJECT CODE 23PMBN12 **SUBJECT** DATA VISUALIZATION NAME USING R AND PYTHON (IBM) TIME & 09.30 AM & 05.12.23 DEGREE/BRANCH MBA BUSINESS ANALYTICS DATE To write a Program to create maps with markers and Chropleth maps with Folium. Aim, algorithm and Output & Total (60) Explanation (25) RESULT (15), Viva (20)

	A BUSINESS ANALYTIONIVERSITY LABEXAM					
ANSWER ALL THE QUESTIONS (60 MARKS)						
REGISTER NUMBER	23316131	NAME	SUSHMA SUBASHINI S			
SUBJECT CODE	23PMBN12	SUBJECT NAME	DATA VISUALIZATION USING R AND PYTHON (IBM)			
DEGREE/BRANCH	MBA BUSINESS ANALYTICS	TIME & DATE	09.30 AM & 05.12.23			
To create different types	s of graphs for user in	puts.				
a) Line graph	b) I	b) Line Graph with style				
c)Bar Graph (Horizonta	l and vertical) d) Hi	stogram				
e) Scatter Plot.						
Aim alaawidaa aa 1	1					
Aim, algorithm and Explanation (25)	Output & RESULT	То	otal (60)			
	(15),					
	Viva (20)					