SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)
SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

QUESTION BANK

(COMMON TO DEPARTMENT OF INFORMATION TECHNOLOGY)

VI SEMESTER

1904607- DATA SCIENCE

Regulation – 2019

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SUBJECT : 1904607- DATA SCIENCE
SEM/YEAR : VI / III

UNIT - I: INTRODUCTION TO DATA SCIENCE			
Introduction to Data Science-Concept of Data Science-Traits of Big data-Web Scraping- Analysis vs Reporting			
PART – A			
Q. No	**Question**	**BT Level**	**Competence**
1	What is the primary goal of Data Science?	BTL-1	Remember
2	**Differentiate** Business Intelligence (BI) and Data Science.	BTL-2	Understand
3	**Compare** Data Science and Statistics.	BTL-2	Understand
4	**Define** Data Science.	BTL-1	Remember
5	**List** out the areas in which Data Science can be applied.	BTL-1	Remember
6	What are the 4 V's of Big Data?	BTL-1	Remember
7	**Compare** Big Data with Data Science.	BTL-2	Understand
8	**State** the purpose or reporting and analysis.	BTL-1	Remember
9	**List** out the advantages of web scraping.	BTL-1	Remember
10	Can Data Science Predict the Stock Market? **Examine**.	BTL-2	Understand
11	**Discuss** about analysis and reporting.	BTL-2	Understand
12	**Give** Drew Conway's Venn diagram of Data Science.	BTL-2	Understand
13	**Specify** the life cycle of Data Science.	BTL-2	Understand
14	**Illustrate** the use of Data Science with an example.	BTL-2	Understand
15	**Show** the ways in which decision making and predictions are made in Data Science.	BTL-2	Understand
16	**Differentiate** Data Mining and Data Science.	BTL-2	Understand
17	**Analyze Data Science ethics**.	BTL-2	Understand
18	**Analyze** the roles of Data Science.	BTL-2	Understand

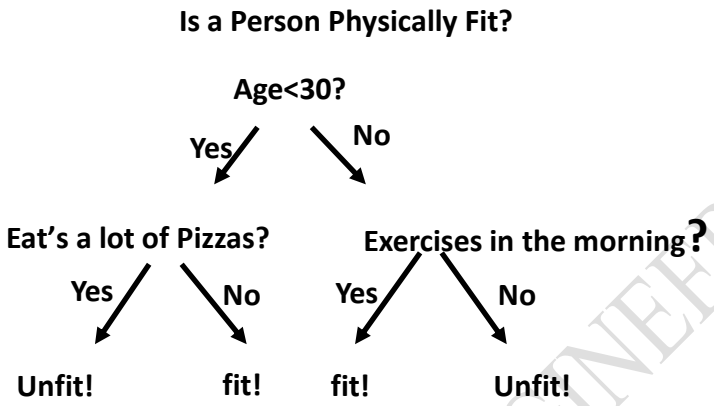
19	Bootstrap is more thorough in terms of the magnitude of replication. **Justify**.	BTL-2	Understand
20	**Develop** a general algorithm for Data Science process.	BTL-2	Understand
21	Define Velocity in the context of Big Data.	BTL-1	Remember
22	Name two tools commonly used for Web Scraping.	BTL-2	Understand
23	List two industries where Big Data is widely used.	BTL-2	Understand
24	Define the Data Science lifecycle.	BTL-1	Remember
	PART – B		
1	i. **What** is Bigdata? (3) ii. Describe the main features of a big data in detail.(10)	BTL-3	Analyze
2	**Describe** life cycle of Data Science with neat diagram. (13)	BTL-3	Analyze
3	**List** the main characteristics of Big Data.	BTL-3	Analyze
4	i. **Discuss** nature of data.(7) ii. Give detail description of applications of data. (6)	BTL-2	Understand
5	i. **Give** the Difference between Traditional Business Intelligence (BI) versus Big Data.(7) ii. **Give** the various drawbacks of using Traditional system approach. (6)	BTL-2	Understand
6	**i. Demonstrate** the ETL (Extract, Transform and Load) system? (7) **ii.** Explain Big Data Technology Landscape. (6)	BTL-3	Analyze
7	**Analyze** and write short notes on the following. i. Hadoop Distributed File System (HDFS). (6) ii. YARN.(7)	BTL-3	Analyze
8	**Explain** the following in detail. i. Map Reduce. (7) ii. YARN.(6)	BTL-4	Apply
9	**i. Assess** the difference between analysis and analytics. (6) **ii.** Discuss the importance of big data analytics? (7)	BTL-3	Analyze
10	Extrapolate big data analytics and **Develop** a summary of various applications in the real world scenario. (13)	BTL-4	Apply
11	**Describe** the roles and stages in data science project. (13)	BTL-3	Analyze
12	i. Illustrate the importance of big data. (6) ii. List out the various challenges faced in big data in detail. (7)	BTL-3	Analyze
13	**Explain** storage consideration in Big Data. (13)	BTL-4	Apply
14	**Discuss** Data Cleaning and Sampling. (13)	BTL-4	Apply
15	Discuss the relationship between the traits of Big Data and the challenges of managing it. Explain how the 4 V's impact data storage, processing, and analysis.	BTL-4	Apply

16	Analyze the importance of Big Data in decision-making. Discuss how industries like healthcare, retail, and transportation utilize Big Data for predictive analytics.	BTL-3	Analyze
17	What are the ethical considerations in Web Scraping? Discuss the implications of privacy violations and how to adhere to ethical guidelines while collecting data.	BTL-3	Analyze
	PART – C		
1	**Create** a brief summary about the challenges faced in processing big data now a day. (15)	BTL-3	Analyze
2	**Evaluate** in detail about the case study of big data solutions. (15)	BTL-4	Apply
3	**Explain** Traditional Vs Big data business approach with its drawbacks. (15)	BTL-3	Analyze
4	**Evaluate** the various formats of data and illustrate with a real time examples. (15)	BTL-3	Analyze
5	**Illustrate** the process of Web Scraping with a case study or example. Include details about the tools, techniques, and data usage.	BTL-3	Analyze
	UNIT II MATHEMATICAL FOUNDATIONS		
	Linear Algebra: Vectors, Matrices- Statistics: Describing a Single Set of Data, Correlation, Simpson's Paradox-Correlation and Causation- Probability: Dependence and Independence, Conditional Probability, Bayes's-Theorem, Random Variables-Continuous Distributions- The Normal Distribution-The Central Limit Theorem.		
	PART – A		
Q. No	**Questions**	**BT Level**	**Competence**
1	What is a vector in linear algebra?	BTL-1	Remember
2	**Point out** the rules for dot product of two vectors.	BTL-1	Remember
3	**Compare** variance and covariance.	BTL-2	Understand
4	**Develop** a matrix to demonstrate binary relationship.	BTL-2	Understand
5	**What** is statistics? What are the ways to describe single set of data?	BTL-1	Remember
6	**List** applications of matrices.	BTL-1	Remember
7	**Given** single set of data, **explain** central tendencies of the data.	BTL-2	Understand
8	**Describe** dispersion in single set of data.	BTL-2	Understand
9	**Give** example of a continuous distribution.	BTL-2	Understand
10	**Define** Bayes's Theorem.	BTL-1	Remember
11	**List** some applications of conditional probability.	BTL-1	Remember
12	**What** way we can think of probability with respect to Data Science?	BTL-1	Remember

13	**What** is correlation?	BTL-1	Remember
14	What is Simpson's Paradox?	BTL-2	Understand
15	**Classify** the different distribution of values of random variables.	BTL-1	Remember
16	**Illustrate** normal distribution with diagram.	BTL-1	Remember
17	**Complete** a routine to display a histogram for sample number people and respective number of friends for them.	BTL-1	Remember
18	**Analyze** and write the importance of matrices in representing data sets.	BTL-2	Understand
19	Reason for importance of normal distribution is central limit theorem – **Justify.**	BTL-1	Remember
20	**Develop** a routine to plot Probability Density **Function**.	BTL-2	Understand
21	Differentiate between correlation and causation.	BTL-2	Understand
22	Why is correlation not causation?	BTL-1	Remember
23	Give the formula for conditional probability.	BTL-1	Remember
24	State the properties of the normal distribution.	BTL-1	Remember
	PART – B		
1	**Describe** vectors and various operations on vectors with routines, example and diagram. (13)	BTL-3	Apply
2	**Explain** matrices with respect to Data Science. (6) Explain statistics and single set of Data. (7)	BTL-3	Apply
3	i. **Describe** about correlation in detail.(7) ii. Explain any one application of correlation.(6)	BTL-3	Apply
4	**Explain** normal distribution with an example. (13)	BTL-3	Apply
5	i. Explain conditional probability.(8) ii. **Justify** the need for normal distribution. (5)	BTL-4	Analyze
6	i. **Give** routine to display a histogram. (7) ii. Discuss about Dependence and Independence. (6)	BTL-4	Analyze
7	i. **Describe** application of matrices to represent binary relationship an example. (7) ii. Describe Bayes's Theorem. (6)	BTL-4	Analyze
8	i. Write a routine to plot Probability Density Function and **illustrate** with an example. (7) ii. Write a routine to plot a Histogram that compares Binomial Distribution and Normal Distribution. (6)	BTL-4	Analyze
9	i. **Describe** Normal Distribution in detail. (7) ii. Explain any one application of Bayes's theorem. (6)	BTL-3	Apply
10	Briefly **describe** the use of statistics in Data Science. (13)	BTL-3	Apply
11	**Analyze** and write a routine to implement various Probability Functions with example. (13)	BTL-4	Analyze
12	**Develop** a data set and demonstrate correlation. (13)	BTL-3	Apply

13	**Discuss** in detail about the variance, covariance, and correlation. (13)	BTL-3	Apply
14	**Illustrate** various distributions of values of random variables. (13)	BTL-4	Analyze
15	Describe the properties of the Normal Distribution and its applications in statistics.(13)	BTL-3	Apply
16	Discuss the concept of Conditional Probability, its formula, and applications with examples.(13)	BTL-3	Apply
17	Explain the relationship between dependence, independence, and conditional probability with suitable examples.(13)	BTL-4	Analyze
	PART – C		
1	**Develop** a routine to demonstrate Binomial Distribution and Normal Distribution. (15)	BTL-4	Analyze
2	**Assess** the routines to implement various random variable distribution functions. (15)	BTL-5	Evaluate
3	**Assess** the difference between variance and covariance. Show a data set of values and demonstrate its correlation. (15)	BTL-5	Evaluate
4	**Develop** your own scenarios to demonstrate use of Vectors and Matrices in Data Science. (15)	BTL-6	Create
5	**Discuss** the use of the Normal Distribution in hypothesis testing and its role in inferential statistics.	BTL-5	Evaluate

UNIT - III: MACHINE LEARNING			
Overview of Machine learning concepts –Types of Machine learning - Linear Regression- model assumptions-Classification and Regression algorithms- Naïve Bayes, K-Nearest Neighbors, logistic regression- support vector machines (SVM), decision trees, and random forest.			
Q. No	**Questions**	**BT Level**	**Competence**
	PART – A		
1	A common danger in machine learning is overfitting **Justify**	BTL 5	Evaluate
2	Usually the choice of a model involves a trade-off between precision and recall. **Justify**.	BTL5	Evaluate
3	**What** is Machine Learning?	BTL 1	Remember
4	**Create** a chart that demonstrates overfitting.	BTL 6	Create
5	**How** supervised models differ from unsupervised models?	BTL 4	Analyze
6	**What** is the reason for the word "Naïve" in Naïve Bayes classification?	BTL 1	Understand
7	**List** the major categories of Machine Learning.	BTL 1	Remember
8	**What** is a model with respect to Machine Learning? **Give** example.	BTL 2	Understand
9	**Define** simple linear Regression.	BTL 1	Remember
10	**How** to find the hyper plane dimension given the dimension of data in Support Vector Machine classification?	BTL 2	Understand

11	**Simulate** the idea behind nearest neighbor's classification.	BTL 6	Create
12	**Discuss** about random forests.	BTL 2	Understand
13	**Give** the formula for Conditional probability.	BTL 2	Understand
14	**Explain** Bayes's theorem.	BTL 4	Analyze
15	**How** we get random trees in Random Forest classification?	BTL 3	Apply
16	**List** major categories of supervised learning.	BTL 1	Remember
17	**List** out various regression models under supervised learning.	BTL 1	Remember
18	**Illustrate** all possible decisions that can be made by the following decision tree. 	BTL 3	Apply
19	**Differentiate** regression and Classification.	BTL 4	Analyze
20	**Show** formula for maximum likelihood estimation given a sample data $v_1,\ldots,v_n$ that comes from a distribution that depends on some unknown parameter Θ.	BTL 3	Apply
21	**What** is overfitting in machine learning, and how can it be prevented?	BTL 1	Remember
22	**Define** the role of entropy and information gain in decision trees.	BTL 2	Understand
23	**What** is the difference between a classification problem and a regression problem in machine learning?	BTL 1	Remember
24	**What** is a hyperplane in the context of Support Vector Machines?	BTL 1	Remember
	PART – B		
1	**Write** routine for logistic regression and explain with necessary data and charts. (13)	BTL 1	Remember
2	**Explain** the following with suitable example. i. Simple Linear Regression. (6) ii. Multiple Regression. (7)	BTL 4	Analyze
3	**Describe** K-Nearest predictive model with suitable routine and example. (13)	BTL 1	Remember
4	**Write** the formula for Bayes Theorem and explain Naïve Bayes classifier with necessary routine.(13)	BTL 1	Remember
5	**Discuss** in detail the various Supervised Machine Learning techniques. (13)	BTL 2	Understand
6	**Construct** a decision tree for the following data: Explain various path in the tree that leads to various decisions. (13)	BTL 5	Evaluate

	<table><tr><th>Outlook</th><th>Temp</th><th>Humidity</th><th>Windy</th><th>Play Golf</th></tr><tr><td>Rainy</td><td>Hot</td><td>High</td><td>False</td><td>No</td></tr><tr><td>Rainy</td><td>Hot</td><td>High</td><td>True</td><td>No</td></tr><tr><td>Over roast</td><td>Hot</td><td>High</td><td>False</td><td>Yes</td></tr><tr><td>Sunny</td><td>Mild</td><td>High</td><td>False</td><td>Yes</td></tr><tr><td>Sunny</td><td>Cool</td><td>Normal</td><td>False</td><td>Yes</td></tr><tr><td>Sunny</td><td>Cool</td><td>Normal</td><td>True</td><td>No</td></tr><tr><td>Over roast</td><td>Cool</td><td>Normal</td><td>True</td><td>Yes</td></tr><tr><td>Rainy</td><td>Mild</td><td>High</td><td>False</td><td>No</td></tr><tr><td>Rainy</td><td>Cool</td><td>Normal</td><td>False</td><td>Yes</td></tr><tr><td>Sunny</td><td>Mild</td><td>Normal</td><td>False</td><td>Yes</td></tr><tr><td>Rainy</td><td>Mild</td><td>Normal</td><td>True</td><td>Yes</td></tr><tr><td>Overroast</td><td>Mild</td><td>High</td><td>True</td><td>Yes</td></tr><tr><td>Overroast</td><td>Hot</td><td>Normal</td><td>False</td><td>Yes</td></tr><tr><td>Sunny</td><td>Mild</td><td>High</td><td>True</td><td>No</td></tr></table>		
7	**Discuss** random forest with suitable algorithms and examples? (13)	BTL 2	Understand
8	**Develop** a routine for Support Vector Machine for a two dimension data. Validate the algorithm with suitable example. (13)	BTL 6	Create
9	**Describe** in detail about the following. i. Support Vector Machine. (7) ii. Hyper Plane. (6)	BTL 1	Remember
10	**Differentiate** classification model and regression model of machine learning with suitable examples. (13)	BTL 4	Analyze
11	i. **Write** short notes Random Trees. (6) ii. Explain random forest with example. (7)	BTL 2	Remember
12	**Explain** the Support Vector Machine classification for three dimensional data with necessary routine.(13)	BTL 4	Analyze
13	**Illustrate** decision trees with suitable examples. (13)	BTL 3	Apply
14	**Explain** the Different Types of Machine Learning with Suitable Examples.	BTL 3	Apply
15	**Explain** the Working of K-Nearest Neighbors (KNN) Algorithm and Discuss its Advantages and Disadvantages.	BTL 4	Analyze
16	**Discuss** the Assumptions and Mathematical Representation of Linear Regression.	BTL 3	Apply
17	**i. Show** a formula for maximum likelihood estimation (6) **ii. Prove** the working of Naïve Bayes classifier with necessary routine. (7)	BTL 3	Apply
	PART – C		
1	Construct a decision tree for sample data of your own and **evaluate** various decision that can be arrived based on the decision tree. (15)	BTL 5	Evaluate
2	**Create** your own three-dimensional data and classify them using Support Vector Machine. (15)	BTL 6	Create
3	**Evaluate** random trees and explain random forest. (15)	BTL 5	Evaluate

4	**Evaluate** the K-Nearest Neighbors (KNN) algorithm in detail. Discuss how the choice of 'k' affects model performance, and explain its advantages and limitations in classification tasks.	BTL 5	Evaluate
5	**Describe** the role of the root node in a decision tree, and how does it impact the tree's structure and decision-making process?	BTL 5	Evaluate

UNIT - IV: PROGRAMMING TOOLS FOR DATA SCIENCE			
Introduction to Programming Tools for Data Science-Toolkits using Python: Matplotlib, NumPy, Scikit-learn, NLTK-Visualizing Data: Bar Charts, Line Charts and Scatterplots-Working with data: Reading Files, Scraping the Web, Using APIs (Example: Using the Twitter APIs).			
PART – A			
Q.No	**Questions**	**BT Level**	**Competence**
1	**What** is SAS**?**	BTL1	Remember
2	**Define** data visualization in machine learning.	BTL1	Remember
3	**Give** the features of Numpy.	BTL2	Understand
4	**What** is meant Matplotlib? Give features of Matplotlib.	BTL1	Remember
5	**Give** the expansion for NLTK in machine learning and explain.	BTL2	Understand
6	**List** any four data science tools.	BTL1	Remember
7	**Describe** about Apache Spark.	BTL1	Remember
8	**Predict** the features of Scikit.	BTL2	Understand
9	**Compare** R and Python.	BTL4	Analyze
10	**Distinguish** Statistics and Data Science.	BTL2	Understand
11	**Classify** the different visualization tools.	BTL3	Apply
12	**Develop line chart for the following data.** years = [1950, 1960, 1970, 1980, 1990, 2000, 2010] gdp = [300.2, 543.3, 1075.9, 2862.5, 5979.6, 10289.7, 14958.3].	BTL6	Create
13	Which language is best for learning data science? **Illustrate** why?	BTL3	Apply
14	**Summarize** the MATLAB.	BTL5	Evaluate
15	**Point out** the components of Data Science.	BTL4	Analyze
16	**Compare** various data science languages.	BTL4	Analyze
17	**Select** the best tool or language for data science and give justification.	BTL5	Evaluate

18	**Illustrate** line charts with an example.	BTL3	Apply
19	**Identify** the tools for Data Science.	BTL1	Remember
20	**Develop** a bar chart for the following data. movies = ["Annie Hall", "Ben-Hur", "Casablanca", "Gandhi", "West Side Story"] num_oscars = [5, 11, 3, 8, 10].	BTL6	Create
21	What is NumPy, and why is it used in data science?	BTL-2	Understand
22	What's the difference between a Python list and a NumPy array?	BTL-1	Remember
23	What is the expansion for NLTK in machine learning and explain?	BTL-1	Remember
24	What is the spaCy library in Python?	BTL-1	Remember
	PART – B		
1	**i. Describe** Numpy in detail. (6) **ii.** Write a python program that uses numpy and explain it. (7)	BTL1	Remember
2	**Describe** the following. i. Numpy. (7) ii. Scikit. (6)	BTL1	Remember
3	i. **List** the different types of charts? (7) ii. Explain any one chart in detail with an Example.(6)	BTL1	Remember
4	**Discuss** various Toolkits in Python in detail.(13)	BTL2	Understand
5	**Describe** various web scraping methods in detail.(13)	BTL2	Understand
6	**Illustrate** Matplotlib with an example. (13)	BTL3	Apply
7	**Explain** different visualization tools in detail with an example. (13)	BTL4	Analyze
8	**Point out** various features of Toolkits that can be used with Python. (13)	BTL4	Analyze
9	Write about estimators and **Explain** how it can be fitted to some data using its fit method. (13)	BTL5	Evaluate
10	**Write** a program by loading the Iris dataset, split it into train and test sets, and compute the accuracy score of a pipeline on the test data. (13)	BTL6	Create
11	i. Write a python program to read a file. (7) ii. **Illustrate** the flow of the program.(6)	BTL3	Apply
12	**Describe** the following. i. MaTLAB. (7) ii. Python. (6)	BTL1	Remember
13	**Explain** in detail about the following. i. Line chart. (6) ii. Bar chart .(7)	BTL4	Analyze

14	**Describe** NLTK. Explain the steps to use it in Python. (13)	BTL2	Understand
15	Explain in detail about Reading file with example. (13)	BTL 4	Analyze
16	How can graphical data be projected using matplotlib? Explain with examples. (13)	BTL 3	Apply
17	Write python program to plot line chart by assuming your own data and explain various attribute of line chart. (13)	BTL 3	Apply
	PART – C		
1	**Develop** a line chart to visualize a data set of your choice and give the detailed explanation of observations from chart. (15)	BTL6	Create
2	**Analyze** how to construct a bar chart for a data set and explain it in detail.(15)	BTL5	Evaluate
3	**Explain** a various methods of Scraping the web in detail. (15)	BTL5	Evaluate
4	**Prepare** a program to read a file and discuss its working.(15)	BTL6	Create
5	**Consider that, an E-Commerce organization like Amazon. have different regions sales as NorthSales, SouthSalea, WestSales. EastSales.csv files. They want to combine North and West region sales and South and East sales to find the aggregate sales of these collaborating regions. Help them to do so using Python code. (15)**	BTL5	Evaluate

UNIT - V: CASE STUDIES OF DATA SCIENCE APPLICATION

Weather forecasting-Stock market prediction-Object recognition- Real Time Sentiment Analysis.

PART – A

Q. No	Questions	BT Level	Competence
1	**What** is weather forecasting?	BTL1	Remember
2	**Define** precipitation.	BTL1	Remember
3	**Give** the advantages of weather forecasting.	BTL2	Understand
4	**What** is Object Recognition?	BTL1	Remember
5	**Give** need for opinion mining.	BTL2	Understand
6	**Name** the applications of Sentiment Analysis.	BTL1	Remember
7	**Name** the applications of Object Detection.	BTL1	Remember
8	**Predict** the importance of opinions.	BTL2	Understand
9	**Point** out the role of the web in Sentiment Analysis.	BTL4	Analyze
10	**Distinguish** between computer vision tasks: Image Classification and Object Localization.	BTL2	Understand

11	**Classify** the different computer vision tasks.	BTL3	Apply
12	**Develop sample** input and output for Object Detection.	BTL6	Create
13	**Which** is said to be primary source of atmospheric science?	BTL3	Apply
14	**Summarize** the Role of Modeling to Predict Stock Prices.	BTL5	Evaluate
15	**Point out** the importance of Stock Market.	BTL4	Analyze
16	**Compare** different computer vision tasks.	BTL4	Analyze
17	Can Data Science be used in Stock Market Analysis? **Justify**.	BTL5	Evaluate
18	**How** weather forecasts are made?	BTL3	Apply
19	**List** three modules of R-CNN.	BTL1	Remember
20	**Develop** sample input and output for Object Localization.	BTL6	Create
21	**Identify** the key factors influencing accurate weather forecasting and briefly explain how advancements in technology have improved prediction accuracy in recent years.	BTL 3	Apply
22	**Examine** the role of historical stock market data in stock market prediction models and provide a brief justification for its significance in developing reliable forecasts.	BTL-4	Analyze
23	**Explain** data presentation using statistics, discuss histograms and frequency polygons, and outline a deep learning approach for object recognition.	BTL 6	Create
24	**Compare** the effectiveness of machine learning and traditional methods in object recognition, highlighting the strengths and limitations of each approach in real-world scenarios.	BTL5	Evaluate
	PART – B		
1	**i. Describe** data is a crucial part of Weather Predictions. (6) **ii. How** weather Data is an aid for many Events. **(7)**	BTL1	Remember
2	**Describe** the following i. Image Classification. (6) ii. Object Localization. (7)	BTL1	Remember
3	**Describe the following.** **i,** A Twitter NLP chain,**.** (5) **ii,** NL processor and Ad-hoc NL processor**.** (8)	BTL1	Remember
4	**Discuss** various sub processes involved in the complete process of data science for weather prediction. (13)	BTL2	Understand
5	**Describe** YOLO Model Family**.** (13)	BTL2	Understand
6	**Write** in detail about R-CNN Model Family. (13)	BTL3	Apply
7	**Explain** schema, which shows the process of the water cycle and precipitation occurrence. (13)	BTL4	Analyze
8	**Compare** the following computer vision tasks and discuss about each task in a very detailed Manner. i, Object Localization. (6) ii. Object Detection. (7)	BTL4	Analyze
9	**Summarize** of Predictions made by YOLO Model. (13)	BTL5	Evaluate
10	**Develop** a code to Prepare the Input for the LSTM Model**.** (13)	BTL6	Create
11	**i. Write** short notes on R-CNN.(7)	BTL4	Analyze

	ii. Illustrate Satellite Imagery and Sensor Data. (6)		
12	**Describe** the following i. Image Classification. (6) ii. Object Localization. (7)	BTL1	Remember
13	**i. Discuss** in detail about Satellite Imagery and Sensor Data in weather forecasting. (7) **i. Explain** the Stock Market with suitable example. (6)	BTL3	Apply
14	**Describe** various computer vision tasks in object recognition .(13)	BTL2	Understand
15	**Define** sentiment analysis and explain with example. (13)	BTL4	Analyze
16	**What** is object recognition and explain in detail with their example. (13)	BTL4	Analyze
17	**What** is weather forecasting and explain in detail with their example. (13)	BTL5	Evaluate
	PART – C		
1	**Develop** a case study of Sentiment Analysis in Twitter.(15)	BTL6	Create
2	**Explain** Condensation and coalescence are important parts of the water cycle and how data collected from it.(15)	BTL5	Evaluate
3	**Explain** Fast R-CNN. (15)	BTL5	Evaluate
4	**Develop** a case study on Google Stock Price Prediction Using LSTM. (15)	BTL6	Create
5	**How** natural language processing applied in machine learning? **Why** we used in machine learning. (15)	BTL6	Create