

K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH,

Vidyavihar, Mumbai- 400077

Program: PGDM Executive (Batch2018-19), Trimester -V

Subject: BIG DATA ANALYTICS

(End Term Examination)

Maximum Marks: 50

Duration: 3 hours

Date: 19th Dec. 2019

Part A (25 Marks)

N.B. : 1. Question No. 1 is Compulsory

2. Solve any two questions from Q2 to Q4.

3. Figure to the right indicates marks.

Q1. What is Big Data? What is the importance of Big Data? What are the characteristics of Big Data?

[9]

Q2. List and explain any two types of Big Data Analytics with example [8]

Q3. List and explain any two objects of R [8]

Q4. What is Hadoop? Explain Hadoop Ecosystem. [8]

Part B (25 Marks)

Instructions

1. All questions are compulsory

2. Write all the interpretation on the word documents.

Case – Shoppers Stop -

The Manager of the Shopper Stop showroom in Delhi proposes to his head office that as the sales have touched the target, they should promote further sales by showing some special

gratitude to their loyal customers by providing them with 'First Citizen Club card'. With this card the customers will get point on every purchase that they make and after a certain number of points they will be benefited with 'gift hampers' and 'Free purchases' based on the total number of points occurred. To facilitate the head office, the branch manager provided a decision tree analysis to set up a system to screen the customers and classify them as either loyal or unloyal based on the following three independent variables;

1. Frequency of purchase in a year
2. Average purchase by customer in a year
3. Number of years since the customer has been purchasing from the Shopper Stop showroom.

Question: develop the decision tree analysis (CHAID) based on the loyal (1) and unloyal (0) customers?

Case 2 – Reliance Industries -

Reliance Industries is a major technology, engineering, construction, manufacturing and financial services conglomerate, with global operations. Reliance Industries addresses critical needs in key sectors - Hydrocarbon, Infrastructure, Power, Process Industries and Defence - for customers in over 30 countries around the world.

Reliance Industries is engaged in core, high impact sectors of the economy and our integrated capabilities span the entire spectrum of 'design to deliver'. With 8 decades of a strong, customer focused approach and a continuous quest for world-class quality, we have unmatched expertise across Technology, Engineering, Construction, Infrastructure Projects and Manufacturing, and maintain a leadership in all our major lines of business.

Every aspect of Reliance Industries businesses is characterised by professionalism and high standards of corporate governance. Sustainability is embedded into our long-term strategy for growth.

The Company's manufacturing footprint extends across eight countries in addition to India. Reliance Industries has several international offices and a supply chain that extends around the globe. The company wants to conduct the study based on the share prices and their position in the market. The data of their stock prices are considered for the study is from 1st Jan. 2010 to 31st Dec. 2017.

Question: Develop the ARIMA (Auto Regressive Integrated Moving Average) Model to forecast the stock price with respect to closing for the next 12 months?
