

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

Vidyavihar, Mumbai- 400077

**Program: PGDM Operation/MMS Operation/PGDM Marketing (Batch2018-19),
Trimester -V**

Subject: BIG DATA ANALYTICS

(End Term Examination)

Maximum Marks: 25

Duration: 1.5 hours

Date: 10th Jan. 2019

Instructions

- 1. All questions are compulsory**
- 2. Write all the interpretation on the word documents.**

Case – Proctor and Gamble -

Proctor and Gamble (Bangalore Division), an FMCG major, is planning to arm all its TSI (Territorial Sales Inspector) agents with a palmtop system. This would enhance their performance as they could book more orders faster and accurately which would help it to compete with its main revival. (HLL had already distributed system to all its TSI). The Bangalore division had been achieving their sales target for the last two years. Hence, the head of Bangalore division has decided to recommend to the HO at Mumbai to provide all its TSI with the latest palmtops. P& G Mumbai, has decided to use decision tree analysis to screen TSI's of Bangalore division on the basis of efficiency and potential to service dealer in their respective territory. The classification will be 'potential successful TSI' and 'potential unsuccessful TSI', based on the information supplied by the Bangalore division. The following are independent variables:

1. Experience in terms of number of years
2. Sales in rupees per year
3. Number of dealers covered by each TSI.

Question: develop the decision tree analysis (CHAID) based on the potential successful TSI (1) and potential unsuccessful TSI (0)?

Case 2 – Unliver Study -

Great products from our range of more than 400 brands give Unliver a unique place in the lives of people all over the world.

When consumers reach for nutritionally balanced foods or indulgent ice creams, affordable soaps that combat disease, luxurious shampoos or everyday household care products, there's a good chance the brand they pick is one of ours. Seven out of every ten households around the world contain at least one Unilever product, and our range of world-leading, household-name brands includes Lipton, Knorr, Dove, Axe, Hellmann's and Omo. Trusted local brands designed to meet the specific needs of consumers in their home market include Pureit and Suave. The company want 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 next12 months?
