Set A

PGDM

Marketing Analytics

DM-43~~0~~/IB-415

Trimester –IV, End-Term Examination: September 2019

Time allowed: 2 Hours
Max Marks: 50

Roll No: _____

Instruction: Students are required to write models, process, results and interpretations in answer booklet. They are also advised to submit soft copy to the invigilators.

Q1. 30 marks

a) Develop a mathematical model for the following pairwise comparison matrix of attributes by eigen vector method and find the weightages of attributes. You are to write in detail the model and process in answer sheet. CILO-1

b) What is evolutionary algorithm? Explain the procedure of use of evolutionary algorithm to generate product profiles. CILO-2

You are required to submit the excel sheet to the invigilator by the process they want.

	Attribute 1	Attribute 1	Attribute 1
Attribute 1	1	0.5	0.75
Attribute 1		1	2.5
Attribute 1			1

Answer any one of the following (20 marks) CILO-3

Q2. What is logistic regression? Where and how this regression is used? Give the detail procedure of solving a logistic regression.

The file "LR_5.xls" contains the following data for several launches of the space shuttle:

- Temperature (degrees Fahrenheit)
- Number of O-rings on the shuttle and the number of O-rings that failed during the mission

Use logistic regression to determine how temperature affects the chance of an O-ring failure. The *Challenger* disaster was attributed to O-ring failure. The temperature at launch was 36 degrees. Does your analysis partially explain the *Challenger* disaster?

Q3 The file "RFM_1.xlsx" contains the date and size of transactions for 5000 customers of a mail order catalog company. RFM (recency, frequency, and monetary value) attempts to predict how a customer will perform in the future based on ranking for recency, frequency, and monetary value. Rate each person on a 1–4 scale on each attribute, with a rating of 4 being the best and 1 the worst