

# **JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

## PGDM / PGDM (M) / PGDM (SM)

### THIRD TRIMESTER (Batch 2018-20)

### **END TERM EXAMINATIONS, MARCH 2019**

Set-II

Course Name	Introduction to Business Analytics	Course Code	BA-IBA 001
Max. Time	2 hours	Max. Marks	40 MM

#### INSTRUCTIONS:

1. This is a close book test.

2. All 4 question need to be answered.

1. What is the probability of getting 5 as sum of two fair dice drawn together? Provide commented R simulation code for the answer.

(2+8 Marks)

2. What is Multicolinearity? How many data points at least should be there in training set for a linear regression model of 5 predictor variables? Explain with example - forward selection, backward elimination and stepwise regression methods for predictor variable selection

(2+2+6 = 10 Marks)

- 3. What is the difference between cross sectional data and Time Series Data? Explain Descriptive and Predictive Time Series Analysis with example. What is Trend, Seasonality and cycle in a Time Series? Provide Example. Explain MAE, MAPE, RMSE in context of forecasting accuracy measurement? What forecasting method is used as benchmark prediction for any model evaluation? (1+2+3+3+1 = 10 Marks)
- 4. Assume that goog.csv contains last ten years (day wise) stock price data of GOOGLE Inc. It has two columns namely Date and Price. Provide commented R code to build a forecasting model and predict tomorrow's price. (10 Marks)