[6201]-3017

Second Year M.B.A.

304 -BA-SC-BA-03 : ADVANCED STATISTICAL METHODS USING R

(2019 Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:
1) *All questions are compulsory.*
2) *All questions carry equal marks.*
3) *Figures to the right indicate full marks.*

Q1) Answer the following questions (Any five) **[10]**

a) Recall any four basic statistical functions in R.

b) Identify any two types of tests used to compare means of two samples.

c) Define data mining.

d) Recite the concept of probability. Also explain the meaning of mutually exclusive events.

e) Recall the concept of cross tabulation.

f) What is correlation analysis? Explain its purpose.

g) Define the term predictive modeling.

h) Recall the concept of factor analysis.

Q2) Answer the following questions. (Any two) **[10]**

a) What is linear regression? State the difference between linear and multiple regression.

b) How logistic regression can be used in predictive models?

c) What is conditional probability? Elaborate with example.

P.T.O.

Q3) Answer the following question. (Any one)   **[10]**

    a)   Explain Z test of hypothesis testing. Write syntax and explain in detail?

    b)   What are outliers? How outliers can be detected using statistical methods?

Q4) Answer the following question (Any one)   **[10]**

    a)   Explain the time series analysis. Discuss the trends and seasonality variation using times series analysis.

    b)   What is one-way and two way ANOVA? Explain its application with example.

Q5) Answer the following question. (Any one)   **[10]**

    a)   Review the concept of dimension reduction. Explain its necessity and function in R.

    b)   Describe principal component analysis. Explain the steps in R for dimension reduction.

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