

**Roll No.**

**Total No. of Pages : 03**

**Total No. of Questions : 10**

MBA / MBA(IB) (Sem-2)

## BUSINESS ANALYTICS FOR DECISION MAKING

**Subject Code : MBA-201-18**

**M.Code : 76153**

**Date of Examination : 16-06-2023**

Time : 3 Hrs.

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** contains **EIGHT** questions carrying **TWO** marks each and students has to attempt **ALL** questions.
2. **SECTION-B** consists of **FOUR** Subsections : Units-I, II, III & IV. Each Subsection contains **TWO** questions each carrying **EIGHT** marks each and student has to attempt any **ONE** question from each Subsection.
3. **SECTION-C** is **COMPULSORY** and consists of **ONE** Case Study carrying **TWELVE** marks.

## SECTION-A

1. **Answer briefly :**
- a) What are the limitations of secondary data?
  - b) What is meant by tabulation of data?
  - c) What is an alternate hypothesis?
  - d) What is a Type-2 error?
  - e) What is multicollinearity?
  - f) What is heteroscedasticity?
  - g) What is time series analysis?
  - h) What are non-linear equations?

## **SECTION-B**

### **UNIT-I**

2. Why managers need to have knowledge of statistics for making relevant decisions. Explain by citing examples.
3. **Write notes on :**
  - a) Applications and limitations of the non-probability method of sampling.
  - b) Advantages and limitations of primary data collection process.

### **UNIT-II**

4. Discuss the need and procedure of formulating a hypothesis in statistical analysis. Explain by citing examples.
5. **Write notes on :**
  - a) Applications of Z-test
  - b) Applications of Chi-square test

### **UNIT-III**

6. Discuss the steps and methods of forecasting. Explain by citing examples.
7. **Write notes on :**
  - a) Applications of forecasting
  - b) Applications of partial correlation.

### **UNIT-IV**

8. Discuss the methods and applications of time series in business decision-making. Explain by citing examples.
9. **Write notes on :**
  - a) Splicing and deflation in index numbers
  - b) Different trend analysis techniques.

### SECTION-C

10. A certain drug is claimed to be effective in cutting cold. In an experiment on 500 persons with cold, half of them were given the drug and half of them were given the sugar pills. The patients' reactions to the treatment are recorded as follows :

	Helped	Harmed	No effect	Total
Drug	150	30	70	250
Sugar pills	130	40	80	250
Total	280	70	150	500

On the basis of the data, can it be concluded that there is a significant difference in the effect of the drug and sugar pill at a 5 % level of significance? ( For degrees of freedom = 2, Table value = 5.99)