Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐ **Total No. of Pages : 02**

Total No. of Questions : 17

MBA/ MBA(IB) (Sem.–2)

BUSINESS ANALYTICS FOR DECISION MAKING

Subject Code : MBA-201-18

M.Code : 76153

Date of Examination : 06-12-2023

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 Compulsory question carrying TWELVE marks.**

SECTION-A

Answer briefly :

1. Statistics
2. Census
3. Standard Error
4. Null Hypothesis
5. Multicolinearity
6. Regression
7. Splicing
8. Trend Analysis.

SECTION-B

UNIT-I

9. "*Statistics is an art and science of collecting, classifying and processing data for extracting useful information for policy decision making*". Elucidate with suitable examples.

10. What is sampling? Write a detailed note on various probability and non-probability sampling methods.

UNIT-II

11. What is hypothesis testing? Write a detailed note on the process of hypothesis testing.

12. Given a normal distribution of values for which the mean is 70 and standard deviation is 4.5, you are required to find:

    a) the probability that value is between 65 and 80.

    b) the probability and value is greater than 75.

    c) the probability that value is less than 62.

UNIT-III

13. From the following information, you are required to compute the correlation between house prices and area of the house:

House Price in (Rs.) Lakh	245	312	279	308	199	219	405	324	319	255
Area (Square Feet)	1400	1600	1700	1875	1100	1550	2350	2450	1425	1700

14. Define forecasting. Discuss in detail the steps in business forecasting. Briefly discuss various methods of business forecasting.

UNIT-IV

15. What are index numbers? Discuss in detail various methods of constructing index numbers.

16 What is linear and non-linear time series analysis? Write a detailed note with suitable examples on the application and significance of time series analysis in business decision making.

SECTION-C

17. It has been found that the duration of a particular project is normally distributed with the mean of 12 days and standard deviation of 3.You are required to find the probability that the project will be completed in 15 days. (Corresponding value of Z in the table at Z= 1 is 0.3413, at Z=2 is 0.4772, at Z=3 is 0.4986).

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.