

Roll No.

SECTION – A

12604

**MBA 2 Year 1st Semester (CBCS)
2019-20 New Scheme
Examination – December, 2022**

BUSINESS STATISTICS AND ANALYTICS

Paper : 19IMG21C4

Time : Three Hours]

[Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : This paper consists of *two* sections (Section-A and B).

Section-A is *compulsory* and carrying questions of *two* marks each while Section-B consists of *eight* questions of *sixteen* marks each. The students shall be required to attempt *four* questions from Section-B selecting *one* question from each Unit. All questions carry equal marks.

1. Write short notes on the following : 8 × 2 = 16

- (a) Standard deviation
- (b) Central Tendency
- (c) Multiple regression
- (d) Partial correlation coefficient
- (e) Least square method
- (f) Construction of index number
- (g) Business Analytics
- (h) Chi-square test

SECTION – B

UNIT – I

2. Define statistics in detail. Explain the role and applications of business statistics. 16
3. Discuss uses of measures of dispersion in business decision making. Calculate mean and variance of the following data : 16

Size	14	16	18	20	22	24	26
Frequency	12	13	14	15	13	12	16

UNIT – II

4. Discuss meaning and types of regression briefly. Compute the trend values by method of least squares from the following data : 16

Year	1991	1992	1993	1994	1995	1996	1997
Production	80	90	92	83	94	99	92

5. Explain meaning and types of correlation briefly. Also discuss Karl Pearson's coefficient of correlation with example. 16

UNIT – III

6. Discuss time series briefly. What are its objectives ? Calculate the trend values taking 3 yearly and 5 yearly period of moving average : 16

Year	Sales ('000 Units)	Year	Sales ('000 Units)
1994	9	2002	16
1995	12	2003	18
1996	11	2004	20
1997	8	2005	24
1998	14	2006	23
1999	15	2007	25
2000	27	2008	27
2001	18		

7. Define index numbers. Explain different methods and types of index numbers briefly with examples. 16

UNIT – IV

8. Explain the concept of sampling. Explain its techniques in detail. Also discuss sampling and non-sampling errors briefly. 16
9. Enumerate hypothesis testing in detail. Explain its formulation and testing of hypothesis with example. 16