

Roll No.

12004

**MBA 2 Year 1st Semester (CBCS)
Examination – December, 2018**

QUANTITATIVE ANALYSIS

Paper : 16IMG21C4

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 : Section – A (Question No. 1) is *compulsory*. Attempt *one* question from each Unit in Section – B. All questions carry equal marks.

SECTION – A

1. Discuss the following :

- (a) Histogram
- (b) Merits and demerits of mode
- (c) Properties of regression coefficients
- (d) Seasonal variations
- (e) Independent events

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- (f) Properties of Binomial Distribution
- (g) Applications of Chi-square (χ^2) test
- (h) Null and alternate hypothesis

SECTION – B

UNIT – I

2. Find the values of arithmetic mean, median, mode and D_3 for the following distribution :

X	0-20	20-40	40-60	60-80	80-100	100-120	120-140
f	69	167	207	65	58	24	10

3. Describe the various measures of variations. Why is standard deviation so popular ?

UNIT – II

4. Explain the meaning, significance and types of correlation. What are the differences between correlation and regression ?
5. Find the trend values, using least square method for the following time series :

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Profit (000' Rs.)	105	106	110	107	103	114	121	130	137	142	150

UNIT – III

6. (a) Explain and illustrate classical approach to probability.

- (b) State and prove addition theorem.
 - (c) Write the properties of Normal Distribution.
7. (a) Two dice are thrown simultaneously. Find the probability of getting a sum of (i) 7 and (ii) 9.
- (b) In an industry, 20% workers suffer from occupational disease. A sample of 10 workers is taken. Find the probability that (i) at least 3 workers and (ii) not more than 8 workers suffer from this disease.

UNIT – IV

8. Using suitable examples, explain and illustrate the following :
- (a) One-tailed and two-tailed tests
 - (b) Level of significance
 - (c) Type-I and Type-II errors
9. Marks obtained by the students of two groups are as given below :

Group I 18 20 36 50 49 36 34 49 41

Group II 29 28 26 35 30 44 46

Is there significant difference between the mean marks of the two groups ?
