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

Total No. of Questions : 09

M.Com. (Professional) (2016 to 2017)   (Sem.–1)
STATISTICAL APPLICATIONS IN BUSINESS
Subject Code : MCOP-103
M.Code : 70896

Time : 3 Hrs.   Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. **SECTIONS-A, B, C & D** contains **TWO** questions each carrying **FIFTEEN** marks each and students has to attempt any **ONE** question from each **SECTION**.

2. **SECTION-E** is **COMPULSORY** consisting of **TEN** questions carrying **TWENTY** marks in all.

SECTION-A

1. What is the cost of living index number? What does it measure and discuss briefly its uses and limitations.

2. Explain the construction of Frequency distributions and their analysis in the form of measures of central tendency.

SECTION-B

3. From the following data, obtain the two regression equations :

X	1	2	3	4	5	6	7	8	9
Y	9	8	10	12	11	13	14	16	15

4. Explain the meaning and significance of the concept of correlation. How will you calculate it from statistical point of view?

SECTION-C

5. Define Random Experiment and trial. Find the probability that in the random arrangement of the letters of the word 'INDEPENDENCE' in which all the vowels come together.

6. Define Normal distribution and give the salient features of normal distribution. Write its probability function.

SECTION-D

7. From a simple random sample without replacement of size 8, in which the observations are 46, 8, 38, 24, 35, 29, 36, 40 drawn from the marks obtained by a class of 18 students in monthly test in mathematics out of the marks 50, estimate the total marks of the students in the whole class and the standard error of your estimate.

8. Define Chi-square test and state the conditions for the validity of chi-square test. What is Chi- square test of goodness of fit?

SECTION-E

9. **Define the following :**

   (a) Define Measure of central tendency.

   (b) Define Base shifting.

   (c) Define Splicing.

   (d) Define time series.

   (e) Define Forecasting.

   (f) Define Rank correlation.

   (g) State Bayes theorem.

   (h) Define Poisson distribution.

   (i) Define Standard error

   (j) Define z-test.

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