



M.Com. (Semester – I) Examination, November 2014

COC 102 : BUSINESS STATISTICS (OA-18)

Duration : 3 Hours

Max. Marks : 60

- Instructions :**
- 1) This paper consists of **nine (9)** questions carrying **equal** marks.
  - 2) Question No. **1** consists of **5 compulsory** questions of **2 marks each**.
  - 3) Answer **any five (5)** questions from **2, 3, 4, 5, 6, 7, 8 and 9**.
  - 4) **Each** question carries **10** marks. Figures to the **right** indicate **full marks**.

1. Answer the following questions in brief :
  - a) Explain the difference between regression analysis and time series analysis. **2**
  - b) Explain :
    - i) Coefficient of variation and **2**
    - ii) Coefficient of determination. **2**
  - c) What is foot note and end note ? **2**
  - d) If  $P(A)$  is 0.5,  $P(B)$  is 0.2, and  $P(A \cap B)$  is 0.1; Find  $P(A/B)$  and  $P(B/A)$ . **2**
  - e) Purpose of applying the measures of Skewness and Kurtosis. **2**
2.
  - a) Three coins, whose two faces are marked 1 and 2, are thrown. Find the expectation of the number obtained. **4**
  - b) A box contains six tickets. Two of the tickets carry a prize of Rs. 5 each and the other four prizes of Re. 1 each.
    - i) If one ticket is drawn, what is the expected value of the prize ?
    - ii) If two tickets are drawn, what is the expected value of the prize ? **6**
3. A panel of two judges Prakash and Radhika graded seven dramatic performances by independently awarding marks as follows. The eight performance, for which judge Radhika could not attend, was awarded 37 marks by judge Prakash. If judge Radhika has also been present, how many marks would be expected to have been awarded by her to the eight performance.

Performance	1	2	3	4	5	6	7
Prakash	46	42	44	40	43	41	45
Radhika	40	38	36	35	39	37	41

10

P.T.O.





4. In a course of anti-malarial work in a certain city over a period of time, Quinine was administered to 606 adults out of a total population 3,540. The data regarding incidence of malarial fever is given below. Examine whether the Quinine has the effect of preventing fever

	Fever	No Fever	Total
Quinine	19	587	606
No Quinine	193	2741	2934
Total	212	3328	3540

10

5. Three varieties of wheat varieties A, B and C are shown in twelve plots and the yield of the three varieties are given below (in thousand tons). Test whether there is any significant difference exists between the three varieties with respect to the yield.

**Variety A**    14    16    18

**Variety B**    14    13    15    13

**Variety C**    18    16    16    19    20

10

6. "Sources of data are generally classified in to primary and secondary and depending on the nature of research, a researcher can go for any one of these two sources, but care should be taken so that data collected will be authentic and relevant for the research". Discuss.

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7. "Generally speaking, there are two ways of selecting a sample from a population; viz; random or non-random. In other words they are also called probability and non-probability sampling methods. Most of the research under social sciences uses non-random or non-probability sampling method". Discuss.

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8. Discuss the steps involved in carrying out a successful research.
9. Explain what you mean by plagiarism. Also explain intentional and unintentional plagiarism.

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