



M.Com. (Semester – I) Examination, April 2018
COC102 : RESEARCH METHODOLOGY & STATISTICAL ANALYSIS
(OA – 18)

Duration : 3 Hours

Total Marks : 60

- Instructions :** 1) This paper consists of **nine (9)** questions carrying **equal** marks.
2) Question No.1 consist 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) Tables to be provided **wherever** required.

1. Answer the following questions : (5×2=10)
- Differentiate between Basic and applied research.
 - State the sources of literature review.
 - What do you understand by Pilot survey ?
 - Differentiate between Type I and Type II error.
 - What do you understand by plagiarism in research ?
2. From the information given below calculate Karl Pearson's Coefficient of skewness and Quartile Coefficient of skewness. 10

Measures	Place X	Place Y
Mean	150	140
Median	142	155
Standard Deviation	30	55
Third Quartile	195	260
First Quartile	62	80

3. The following results were worked out from school in Statistics and Mathematics in examination. 10

	Statistic	Maths
Standard Deviation	10	15
Mean	40	48
Karl Pearson's coefficient of correlation between Statistic and Maths is 0.42		

Find both the regression lines, use these regression lines to estimate the value of statistic when Maths is 30.



4. x) Two cards are drawn from a pack of 52 cards. Find the probability that 5
- Both are hearts
 - One is black and one is red
 - Exactly one king is drawn.
- y) Assuming that the probability of a fatal accident in a factory during the year is $1/1200$. Calculate the probability that in a factory employing 300 workers, there will be at least two fatal accidents in a year. 5
5. In a random sample of 400 persons from Margao, 80 are found to be consumers of wheat. In a sample of 420 from Bicholim 65 are found to be consumers of wheat. Do these data reveal a significant difference between Margao and Bicholim, so far as the proportion of wheat consumers is concerned. Test it at 1% level of significance. 10
6. What are the essentials of questionnaire ? Draft a suitable questionnaire to enable you to conduct sample survey to obtain information on study habits of Goa University students and facilities available to them. 10
7. Discuss in detail the process of research design with examples. 10
8. "Developing a good, effective and concise report is an art form in itself". Considering this statement discuss in detail the various components of Research reports. 10
9. "Good Research generates dependable data that are derived by professionally conducted practices and that can be used reliably for decision making". In view of the same discuss the features of good research and types of research in business. 10

Statistic	Maths
Mean	40
Standard Deviation	15

Find both the regression lines, use these regression lines to estimate the value of statistic when Maths is 30.