



SRN – 14

M.Com. (Semester – I) Examination, April 2017
COC102 : RESEARCH METHODOLOGY AND STATISTICAL
ANALYSIS (OA – 18)

Duration : 3 Hours

Max. Marks : 60

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

1. Answer the following questions briefly : (5×2=10)
- a) Explain the importance of research.
 - b) What are research objectives ?
 - c) Explain data coding.
 - d) What is correlation coefficient ?
 - e) What are research ethics ?

2. In a certain examination 10 students obtained the following marks in Accounting and Statistics. Find the Spearman's rank correlation co-efficient and interpret the same. 10

Student	1	2	3	4	5	6	7	8	9	10
Marks in Accounting	90	30	82	45	32	65	40	88	73	66
Marks in Statistics	85	42	75	68	45	63	60	90	62	58

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3. A Company manufactures detergents in packs of 500 gms. The quantity of detergents packed follows a normal distribution with mean of 500 gms and standard deviation of 2 gms. In a lot of 1000 packets, find the
- Number of packets with weight exceeding 501 gms.
 - Number of packets with weight less than 498 gms. 10
4. A box contains 8 good pens, 4 pens with minor defects and 3 pens with major defects. 4 pens are picked at random without replacement. Find the probability that
- all pens are defective
 - atleast one pen is good
 - exactly 2 pens are good
 - one pen is good, one has minor defect and 2 have major defect
 - one pen is good and 3 have major defects. 10
5. In two factories A and B, engaged in the same industry in an area, the average weekly wages in Rupees and the standard deviation are given as follows :

Factory	Average Weekly Wages	Standard Deviation	No. of Wage Earners
A	34.5	5.0	476
B	28.5	4.5	524

- Which Factory A or B pays out the larger amount as weekly wages ?
 - What is the average weekly wages of all workers in the two factories taken together ?
 - What is the coefficient of variation in the case of each factory separately ?
What inference do you draw from a comparison of these two figures ? 10
- Explain the features of a good research study. 10
 - Explain the process of identification of research problem. 10
 - Explain the different types of sampling designs. 10
 - Explain the structure of a research report. 10