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# Reg. No.: .....

## Second Semester M.A./M.Sc./M.Com. Degree (Regular/Supplementary/ Improvement) Examination, March 2015 COMMERCE (2013 & Earlier Admn.) Paper – VI : Research Methodology and Statistical Techniques

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all Sections.

### SECTION - A

Answer any five questions. All questions carry equal marks.

 $(5 \times 8 = 40)$ 

- 1. Briefly explain the steps involved in Research Process.
- 2. What are the different sources for collecting primary data for social science research?
- Discuss briefly about the difference between stratified sampling and cluster sampling.
- 4. What is the difference between Primary and Secondary Data?
- 5. What is the difference between qualitative and quantitative research with adequate examples ?
- 6. Discuss briefly about the steps in conducting research.
- 7. Distinguish between t test and Z test.
- 8. Explain briefly about Multi stage sampling.

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#### SECTION-B

Note : Answer any two questions. All questions carry equal marks. (2×20=40)

9. Intelligence test given to two groups of boys and girls gave the following information.

	Mean Score	S.D.	Number	
Girls	75	10	50	
Boys	70	12	100	

Is the difference in the mean scores of boys and girls statistically significant ?

10. A certain drug is claimed to be effective in curing cold. In an experiment on 500 persons with cold, half of them were given the drug and half of them were given the sugar pills. The patients' reactions to the treatment are recorded in the following table :

Туре	Helped	Harmed	No effect	Total
Drugs	150	30	70	250
Sugar Pills	130	40 -	80	250
Total	280	70	150	500

On the basis of this data can it be concluded that there is a significant difference in the effect of the drugs and Sugar Pills ?

11. Below are given the yield in kg per acre for 5 trial plots of 4 varities of treatment.

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	1	2	3	4
1	42	48	68	80
2	50	66	52	94
3	62	68	76	78
4	34	78	64	82
5	52	70	70	66

Carry out an analysis of variance and state your conclusions.

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12. Use the Kruskal-Wallis test at 1% level of significance to test whether the four salesman have performed equally in their sales drive.

		Sa	Sales figures ('000 I			
Sales man A	171	182	157	148	162	
Sales man B	152	175	202	168	176	
Sales man C	160	155	139	146	166	
Sales man D	179	142	197	170	158	