

**M. Sc. DEGREE EXAMINATION, APRIL 2015**  
**INFORMATION TECHNOLOGY**  
**FOURTH SEMESTER**

**COURSE : CORE**  
**PAPER : RESEARCH METHODOLOGY**  
**TIME : 3 HOURS**

**MAX. MARKS: 100**

**SECTION - A**

**Answer all the following:**

**(10 x 2 = 20)**

1. What is ex post facto research?
2. Define continuous variable.
3. Define primary data.
4. What is structured observation?
5. What are the steps involved in hypothesis testing?
6. What is Chi-Square test?
7. What are the different types of report?
8. What is pivot table?
9. What are the benefits of using dictionary software?
10. What are the various ways to enrich the text in report writing using report writing tool?

**SECTION - B**

**Answer any six of the following:**

**(6 x 5 = 30)**

11. Explain the different research methods and techniques used in library and laboratory research.
12. What is the difference between research designs in respect of the two types of research studies?
13. Write a short note on data presentation of secondary data.
14. Describe Kruskal Wallis test.
15. Explain in detail about the hypothesis testing for proportion.
16. Briefly explain about oral presentation.
17. Discuss summarizing data with database statistical functions.
18. Explain in detail about grammar software.

**SECTION - C****Answer any five of the following:****(5 x 10 = 50)**

19. What is a Research problem? Explain the steps to be observed by a researcher in selecting a research problem.
20. Explain different probability samples.
21. What are the merits and demerits of the collection of data through questionnaires?
22. Explain in detail about the nonparametric tests.
23. The values in one sample are 53,38,69,57,46,39,73,48,73,74,60 and 78. In another sample they are 44, 40,61,52,32,44,70,41,67,72,53 and 72. Test at the 10% level the hypothesis that they come from populations with the same mean. Apply U-test.
24. Describe in detail about ANOVA.
25. Explain in detail about improving English vocabulary using sophisticated dictionary.

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