M.Sc. DEGREE EXAMINATION, APRIL 2020 I Year II Semester Research Methods and Statistics

Time : 3 Hours

Max.marks :75

Section A $(10 \times 2 = 20)$ Marks

Answer any $\ensuremath{\text{TEN}}$ questions

- 1. Define research.
- 2. What is null hypothesis?
- 3. List the types of cohort study.
- 4. State the advantages of case study method.
- 5. Write the types of bibliography.
- 6. Define simple random sampling.
- 7. Mention the advantages of using a questionnaire.
- 8. Give few examples for qualitative data.
- 9. What is Z test?
- 10. What is a cartogram?
- 11. Give the demerits of arithmetic mean.
- 12. Write the chi-square test formula.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

- 13. Explain the need for research in the field of food science and nutrition.
- 14. Describe the types of research design.
- 15. Give a brief note on validity and reliability with suitable examples.
- 16. Discuss the mechanics of writing a research report.
- 17. Write short note on participant type of observation.
- 18. Explain the types of diagram.
- 19. The specimen of copper wires drawn from a large lot have the following breaking strength(in kg. weight) 578, 572, 570, 568, 578, 570, 572, 596,544. test whether the mean breaking strength of the lot may be taken as 578 kg. Test at 5% level of significance

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

- 20. What is a research problem? Discuss the techniques involved in defining a problem
- 21. Discuss the various types of correlation.
- 22. Briefly explain the types of sampling method.
- 23. Explain the measurement scales in detail.
- 24. What is x^2 test Explain its various applications.

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