M.Sc DEGREE EXAMINATION, APRIL 2019 I Year II Semester Research Methods and Statistics

Time : 3 Hours

Max.marks :75

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

Answer any **TEN** questions

- 1. Define Research.
- 2. "Formulate a hypothesis for the research topic "Role of Fibre in Obesity".
- 3. What type of research is a Cohort Study?
- 4. Suggest 3 Nutritional topics for the Survey Study.
- 5. Distinguish between Probability & Non probability sampling.
- 6. List the different types of scientific research.
- 7. What are the measures of Central tendencies?
- 8. Rating Scale- its importance in research methods.
- 9. Define Spearman's Rank Correlation.
- 10. Mention the types of parametric scales.
- 11. Define Ogive.
- 12. Discuss 3 points about Monograph.

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

Answer any **FIVE** questions

- 13. Demonstrate the need of Research in the field of Food and Nutrition.
- 14. Briefly explain about Cohort Study and cross sectional study with suitable examples.
- 15. What are the steps involved in Probability sampling and its advantages?
- 16. The frequency table of the monthly food expenditure of 20 people is shown below:

Food Expenditure (in Rupees)	Frequency
3500	5
4000	8
4200	5
4300	2

a) Calculate the mean of the food expenditure of the 20 people.

b) Draw the Bar diagram for the above data of the food expenditure of 20 people.

Amount Spent(In lakhs)	No.of Food Items
10-20	5
20-30	7
30-40	11
40-50	14
50-60	21
60-70	13
70-80	8
80-90	5
90-100	2

17. Draw the Less than or More than (any one) Ogive from the data given below:

- 18. Briefly elaborate about the Uses and Guidelines for Appendices.
- 19. Give a detailed account about the types of Data.

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

Answer any **THREE** questions

- 20. Narrate the process involved in Research methodology.
- 21. Describe about the descriptive and Analytical studies with suitable examples.
- 22. Demonstrate the steps involved in Scientific writing and its types and significance in research methods.
- 23. Validity, reliability, sensitivity and specificity of research tools- Discuss in detail.
- 24. "T test is used as a hypothesis testing tool, which allows testing of an assumption applicable to a population"- Justify.

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