TM241918I

Reg. No :.....

Name :.....

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024

2024 ADMISSIONS REGULAR

SEMESTER I - CORE COURSE Food Science And Nutrition

FN1C04TM20 - Research Methods and Statistics I

Time : 3 Hours **Maximum Weight : 30**

Part A

I. Answer any Eight questions. Each question carries 1 weight **(8x1=8)**

1. List out the merits of applied research.
2. What is a variable?
3. What is an observational design?
4. What is Likert scale? Bring out its advantages and disadvantages.
5. Distinguish between absolute and relative measures of dispersion.
6. Explain central tendency.
7. Explain the procedure for calculating median from a continuous frequency table.
8. Distinguish between simple and multiple regressions.
9. What is correlation?
10. Distinguish between multiple and partial correlation.

Part B

II. Answer any Six questions. Each question carries 2 weight **(6x2=12)**

11. List the sources of the research problem.
12. What is meant by reliability of a research tool? Give the different procedures to assess it.
13. What are deciles and percentiles?
14. Calculate the coefficient of variation for the data given below.

Class	0-10	10-20	20-30	30-40	40-50
Frequency	8	15	30	16	1

15. What are the desirable properties of good measure of central tendency?
16. Given the following data, find the most probable value of x when y = 30

	x	y
Mean	27.6	14.8
S.D.	40	20

r = 0.8

17. Define regression co-efficients. Give the properties of regression co-efficients of a bivariate data.
18. From the data given below find the regression equation of x on y.

x	5	6	7	3	2
y	4	5	8	2	1

Part C

III. Answer any Two questions. Each question carries 5 weight **(2x5=10)**

19. Explain the process of formulation of hypothesis.
20. Discuss rating scale under the following heads; a) Categories b) Uses and c) Limitations
21. Find the mean, median and mode of following data.

class	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
frequency	7	10	20	13	17	10	4	9

22. From the data given below find:

(a) The two regression equations.

(b) The coefficient of correlation between marks in economics and marks in statistics.

(c) The most likely mark in statistics when marks in economics are 30.

Marks in economics	25	28	35	32	31	36	29	38	38	32
Marks in statistics	43	46	49	41	36	32	31	30	33	39