

**MASTER OF SCIENCE IN
DIETETICS AND FOOD SERVICE
MANAGEMENT
[M. SC. (DFSM)]**

Term-End Examination

June, 2025

**MFN-009 : RESEARCH METHODS AND
BIostatISTICS**

Time : 3 Hours

Maximum Marks : 100

Note : *Question No. 1 is compulsory. Answer
five questions in all. All questions carry
equal marks.*

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- | | |
|---|---|
| 1. (a) Describe unstructured interview. | 2 |
| (b) What do you understand by control in
experimental research ? | 2 |
| (c) Explain the meaning of the word
'Cohort'. | 2 |

- (d) Explain social variable with example. 2
 - (e) What is Discrete Variable ? Give an example. 2
 - (f) Differentiate between qualitative and quantitative variables giving examples. 2
 - (g) Explain the meaning of scientific research. 2
 - (h) What do you understand by code of ethics in research ? 2
 - (i) What is Chi-square test ? When is it used ? 2
 - (j) What do you understand by nutrition epidemiology ? 2
2. A researcher wants to study recovery from Covid among adults who are suffering from diabetics in the age group 35-45. Design a research proposal with the following components :
- (a) Title of the research study 2

- | | |
|--|---|
| (b) Research objectives | 3 |
| (c) Research design | 3 |
| (d) Sample and sampling technique | 3 |
| (e) Tools of data collection | 4 |
| (f) Data collection | 2 |
| (g) Research analysis/Statistical tools for data analysis. | 3 |
3. Explain the following briefly giving suitable examples : 5+5+5+5
- (a) Mortality measures
 - (b) Parametric test
 - (c) Non-probability sampling
 - (d) Characteristics of a good sample
4. Differentiate between the following giving examples : 5+5+5+5
- (a) Nominal scale and ordinal scale

- (b) Structured observation and Unstructured observation
 - (c) Content validity and criterion related validity
 - (d) Numerical scale and Graphic scale
5. (a) Describe the different forms of hypothesis. 10
- (b) Describe the main steps involved in conducting descriptive research. 5
- (c) Write the steps involved in Experimental Research. 5
6. Calculate mean, median, mode, standard deviation and range for the following data.
Test scores of 10 students enrolled in MFN-009 : 20
- Score : 45, 34, 52, 36, 41, 26, 60, 54, 37, 49

7. (a) Calculate the product moment correlation for the following data for two variables : 12

X (Theory Marks)	Y (Practical Marks)
45	21
54	32
52	41
58	40
61	36
41	23
32	45
36	21
50	36
40	27

- (b) Describe the characteristics of normal probability distribution. 8

8. Write short notes on any *four* of the following : 4×5=20

- (a) Types of test
- (b) Techniques of interview
- (c) Cluster sampling
- (d) Relative risk and odds ratio
- (e) Representation of frequency distribution

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