

No. of Printed Pages : 5

MFN-009

**MASTER OF SCIENCE IN DIETETICS
AND FOOD SERVICE MANAGEMENT
(MSCDFSM)**

Term-End Examination

June, 2023

**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.*

1. (a) Define epidemiology. What are the *two* fundamental assumptions governing epidemiology ? 2+2
- (b) Name any *three* types of research you may undertake in the context of nutritional epidemiology. 3
- (c) List the different components of a research dissertation. 2
- (d) What do you understand by the term co-founding factors ? 2

P. T. O.

- (e) Differentiate between single and double blind study, giving example. 3
- (f) What is a quasi-experimental design ? 2
- (g) What is the difference between rating and attitudes ? Explain giving an example of rating scale and attitude scale. 4
2. "Diarrhoea is a major problem affecting children in urban slums." You are required to study the prevalence, etiology, KAP of care-givers in the community. Develop a research proposal considering the following components :
- (a) Title of the research study 2
- (b) Research objectives 3
- (c) Methodology including the following parameters :
- (i) Research Design 3
- (ii) Scale of the study 1
- (iii) Sample, Sample Size and Sampling Technique 2+2+2
- (iv) Tools and techniques for data collection 4
- (d) Research Analysis/Statistical Tools. 1
3. Explain the following briefly giving suitable examples : 4×5=20
- (a) Cohort Study

- (b) Intervention Study
- (c) Correlation Study
- (d) Case Study
- (e) Case-Control Study
4. Differentiate between the following giving examples : 5+5+5+5
- (a) Structural Questionnaire and Unstructured Questionnaire
- (b) Participant Observation and Non-Participant Observation
- (c) Structured Interview and Unstructured Interview
- (d) Documents and Records
5. (a) Explain the use of tables in data tabulation. Give examples of tables commonly used to tabulate data on a large number of subjects. 10
- (b) What is a reference value and/or a standard value ? Give *two* examples of reference values you come across in your study of dietetics. 5
- (c) What is a normal probability distribution ? 5

6. Given is a grouped data for the number of children. Who secured marks between 10 and 40 ? Calculate the mean, median, mode, variance and standard deviation from the grouped data : $6+4+4+3+3$

Class Interval	Frequency
35–39	4
30–34	8
25–29	11
20–24	8
15–19	6
10–14	3

7. Find out the product moment co-relation for the following two valuables. What do you infer from the test results ? 20

Nutrition Knowledge Score	
Male Students	Female Students
46	50
50	45
52	44
49	60
35	42
45	36

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

- (a) Parametric tests and their relevance
- (b) Features of SPSS for Windows
- (c) Statistical inference from Relatives Risks and Odds Ratio
- (d) Indicators of Morbidity
- (e) Probability Sampling