

**MASTER OF SCIENCE (DIETETICS AND FOOD  
SERVICE MANAGEMENT) (M.Sc. DFSM)**

**Term-End Examination,**

**December 2019**

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

*Time : 3 Hours]*

*[Maximum Marks : 100*

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*Note : (i) Question No.1 is compulsory.*

*(ii) Answer five questions in all.*

*(iii) All questions carry equal marks.*

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1. a) Explain the following in 2-3 sentences each. 10
- i) Biostatistics
  - ii) Science
  - iii) Hypothesis
  - iv) Sampling
  - v) Usability of data
- b) Give one example for each of the following: 5
- i) Rating by cumulative point
  - ii) Quota sample
  - iii) Open ended question
  - iv) Limitation of Interview
  - v) Null hypothesis

(2)

- c) Fill in the Blanks: 5
- i) Number of people sick during a time period divided by number of people in the total population is called \_\_\_\_\_.
  - ii) \_\_\_\_\_ is a measure of position rather than magnitude.
  - iii) \_\_\_\_\_ is a measure of the distance in standard deviation of a sample from the mean.
  - iv) Data which are got by applying nominal scale of measurement is \_\_\_\_\_ Data.
  - v) Number of units sampled for inclusion in the study is called\_\_\_\_\_.

2. Dengue is a very common fever during the rainy season. Design a brief research proposal to study the cleanliness in your area with the following components:

- i) Research Title 2
- ii) Research Questions and objectives 5
- iii) Research design 2
- iv) Sample, sample size and sample technique 6
- v) Research tools 3
- vi) Data collection and analysis 2

3. Differentiate between the following by giving examples. 5+5+5+5

- a) Correlational studies and migrant studies.
- b) Nominal scale and metric scale.
- c) Individual test and Group test
- d) Participant observation and non-participant observation.

(3)

4. Explain the following briefly by giving suitable examples

5+5+5+5

- a) Journals
- b) Quantitative data
- c) Frequency polygon
- d) Construct validity

5. a) Compute product moment correlation for the following data 10

X	2	12	22	32	42	52	62
Y	1	5	7	4	3	8	2

b) Calculate the Median and Mode from the following grouped data when frequency is given. 5+5

C.I	Frequency
70-74	2
65-69	6
60-64	5
55-59	7
50-54	3
45-49	1

6. a) Describe the Quasi Experimental Design. Give a suitable example. 10

b) Describe the main steps involved in a case control, study design. 10

(4)

7. a) Differentiate between close ended and Open ended questionnaire. Explain the stages in the process of designing the Questionnaire. 5+5
- b) Describe the Normal probability distribution curve used in Research. 10
8. Write short notes on any four of the following: 5+5+5+5
- a) Health related variables
- b) Scope of research in nutrition
- c) Utilization of Records
- d) Measures for validity of diagnostic tests
- e) Systematic sampling

