

02714

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

**Term-End Examination**

**December, 2016**

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

*Time : 3 hours*

*Maximum Marks : 100*

- 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) Define the following : 10
- (i) Non - Parametric Test
  - (ii) Standard Deviation
  - (iii) Continuous Variable
  - (iv) Observational Design
  - (v) Sample
- (b) Give one example for each of the following : 5
- (i) Graph for nominal data
  - (ii) Analytical studies
  - (iii) Types of Hypotheses
  - (iv) Representation of Frequency distribution
  - (v) Test of Achievement
- (c) List the strengths of cross - sectional studies. 5

2. "Malnutrition in children is commonly seen in villages." Develop a research proposal to study the status of Malnutrition in any one village of your district. Outline the following points of the research proposal :
- |                                   |   |
|-----------------------------------|---|
| (a) Title of the Research study   | 2 |
| (b) Research objectives           | 3 |
| (c) Sample and Sampling Technique | 5 |
| (d) Research Design               | 3 |
| (e) Research Instruments          | 5 |
| (f) Method of Data collection     | 2 |
3. Explain the following in brief : 5+5+5+5
- |  |  |
|--|--|
| (a) Journals - Research guide for Researcher |  |
| (b) Limitation of Rating scale               |  |
| (c) Construct Validity                       |  |
| (d) Limitations of Questionnaire             |  |
4. Differentiate between the following sets of terms : 5+5+5+5
- |   |  |
|---|--|
| (a) Power vs. Speed Test                                    |  |
| (b) Paper pencil and Performance Test                       |  |
| (c) Qualitative Data and Quantitative data                  |  |
| (d) Structured Questionnaire and Unstructured questionnaire |  |

5. Compute mean, median and mode of the following frequency distribution : 20

CI	f
71 - 75	3
66 - 70	1
61 - 65	6
56 - 60	5
51 - 55	2
46 - 50	9
41 - 45	4

6. (a) Write the points you will keep in mind while developing a research design. 6
- (b) Write the sources from where information is obtained for descriptive studies. 6
- (c) Describe the principle in selection of comparison groups. 8
7. (a) 8 Females and 6 Males enrolled in MFM Course and obtained the following score : 10

Female	30	42	50	35	64	48	62	33
Male	34	44	58	60	38	47		

Calculate the significance of difference between the mean scores of the females and the males.

- (b) The theory and practical marks for 10 students are given below : 10

Theory (X)	24	34	33	22	37	23	38	33	44	35
Theory (Y)	15	21	28	31	18	24	36	32	27	18

Find the correlation coefficient between X and Y.

8. Write short notes on **any four** of the following : 5+5+5+5
- (a) Coding of Data
  - (b) Measures of Variability
  - (c) Relative Risk and Odds Ratio
  - (d) Limitations of Rating scale
  - (e) Multistage sampling
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