

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

Term-End Examination

December, 2011

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

Time : 3 hours

Maximum Marks : 100

*Note : Question No. 1 is compulsory. Answer five questions
in all.*

1. (a) Define the following : 10
- (i) Science
 - (ii) Population
 - (iii) Qualitative Data
 - (iv) Discrete variable
 - (v) Sampling Frame
- (b) Give one example for each of the following : 5
- (i) Declarative Hypothesis
 - (ii) Ordinal Scale
 - (iii) Close Ended Question
 - (iv) Graphic Scale
 - (v) Unstructured Interview

(c) Fill in the Blanks :

5

- (i) Qualitative Data are _____ materials.
- (ii) Data are either _____ or _____
- (iii) _____ is the middle value in a distribution.
- (iv) Negative predictive is the probability that a human being is not infected when _____ test result is observed.
- (v) Positive _____ of variance is the standard deviation.

2. Breast Cancer is a major problem among the women in India. As a researcher, you have to study the breast cancer cases in your district. Design a research proposal with the following points :

- (a) Define the research problem 2
- (b) Research objectives of the study 5
- (c) Population, Sample and Method of Sampling. 3
- (d) Research Method 5
- (e) Hypothesis 2
- (f) Method of Data collection 3

3. Explain the following briefly giving suitable examples : 5+5+5+5
- (a) Quasi Experimental Design
 - (b) Characteristics of Good Research Tool
 - (c) Non Probability Sample
 - (d) Points to consider while developing a research design.
4. Differentiate between the following : 6+6
- (a) Research tools giving appropriate examples :
 - (i) Documents and official Records.
 - (ii) Standardized tests and Teacher Made Tests.
 - (b) Differentiate between the following 4+4 sampling methods with appropriate examples.
 - (i) Cluster Sampling and Multi-stage sampling.
 - (ii) Purposive Sample and Incidental Sample.
5. Marks obtained by 8 Boys in Nutrition and Food Science is as follows : 20
- Nutrition : 35, 40, 46, 32, 31, 54, 60, 62
- Food Science : 61, 36, 41, 47, 23, 39, 59, 55
- Find out the product moment correlation for the above two variables.

6. (a) Explain the three main types of observational study. 6
- (b) Explain the three characteristics of experimental research. 6
- (c) Explain the various methods of non-probability samples. 8

7. Compute mean, median, mode, variance and standard deviation for the following frequency distribution 20

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195 - 199	1
190 - 194	2
185 - 189	4
180 - 184	5
175 - 179	8
170 - 174	6
165 - 169	4

8. Write short notes on *any four* of the following 5+5+5+5
- (a) Parametric Tests
- (b) Characteristics of Good hypothesis
- (c) Cross Sectional Study
- (d) Main Steps for Experimental Research.
- (e) Representativeness of Sample.
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