

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

Term-End Examination

December, 2013

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

Time : 3 hours

Maximum Marks : 100

Note : Question No. 1 is compulsory. Answer five questions.

1. (a) Define the following : 10
- (i) Variables
 - (ii) Sample
 - (iii) Reliability
 - (iv) Sampling Frame
 - (v) Quantitative Data
- (b) Give one example for each of the following : 5
- (i) Hypothesis
 - (ii) Unstructured question
 - (iii) Sample Population
 - (iv) Rating Scale
 - (v) Unstructured observation
- (c) Fill in the blanks : 5
- (i) Non probability sampling is based on _____ of the researcher.
 - (ii) Hypothesis provide _____ to research.
 - (iii) Optimum sample fulfills the requirement of _____.
 - (iv) A _____ is a group of people who share a common experience.
 - (v) Y represent the measure of _____ variable.

2. Tuberculosis is one of the common diseases in India. You are asked to study the status of this disease in your district. Develop a research proposal with the following points.
- | | |
|-----------------------------------|---|
| (a) Title of the Research study | 2 |
| (b) Research objectives | 3 |
| (c) Sample and Sampling Technique | 5 |
| (d) Research Method | 3 |
| (e) Research Tools | 5 |
| (f) Method of Data collection | 2 |
3. Explain the following briefly giving suitable examples.
- | | |
|--------------------------|---|
| (a) Reliability of tool | 5 |
| (b) Nominal scale | 5 |
| (c) Sampling size | 5 |
| (d) Nonstandardized Test | 5 |
4. (a) Differentiate between the following Research tools giving appropriate examples. **6+6**
- | | |
|---|--|
| (i) Numerical Scale and Graphical Scale | |
| (ii) Imbert Scale and Thurstone Scale | |
- (b) Differentiate between the following research methods with approximate examples. **4+4**
- | | |
|--------------------------------|--|
| (i) Journal and Records | |
| (ii) Interview and Observation | |
5. Find out the product moment correlation for the below two variables at 0.05 level of significance. **20**
- Dietetics : 40, 35, 32, 21, 43, 22
 Biostatistics : 42, 34, 29, 15, 45, 16
6. (a) Describe the various types of documents. **6**
 (b) State the characteristics of a good sample. **6**
 (c) Write the steps involved in conductivity experimental research. **8**

7. Given below is the data related to number of male and female students who have passed or failed nutrition test. 10+10

	Pass	Fail
Female	30	20
Male	25	15

- (a) Test whether the exam differentiate between male and female students at 0.05 level of significance.
- (b) Calculate the odds ratio of pass female students as compared to male students.
8. Write short notes on **any four** of the following :
- (a) Quasi Experimental Design 5+5+5+5
- (b) Main steps for case study
- (c) Cohort Study
- (d) Parametric tests
- (e) Sampling Techniques
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