

00421

MASTER OF SCIENCE (DIETETICS AND FOOD SERVICE MANAGEMENT)

Term-End Examination

December, 2014

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 the following : 10
- (i) Non-Parametric Tests
 - (ii) Epidemiology
 - (iii) Null hypothesis
 - (iv) Probability
 - (v) Sample
- (b) Give one example of each of the following : 5
- (i) Rating Scale
 - (ii) Questionnaire
 - (iii) Types of Tests
 - (iv) Observation Technique
 - (v) Frequency Distribution Graph
- (c) Fill in the blanks : 5
- (i) _____ is the extent to which a test measures relatively abstract constructs.
 - (ii) Sample that is not representative is known as _____.
 - (iii) Non-probability sample is based on _____ of the researcher.
 - (iv) _____ is a test to measure the individuals concepts before the intervention.
 - (v) Hypothesis should be _____.

2. A researcher wants to study the causes of diarrhoea during summers in preschool children in his/her area. Design a research proposal with following components :
- (a) Statement of research problem 2
 - (b) Research objectives 5
 - (c) Research Design (Methodology, Sample) 6
 - (d) Research Instruments 5
 - (e) Research Analysis 2
3. Differentiate between the following giving examples.
- (a) Experimental Group and Control Group 5
 - (b) Cluster Sampling and Multistage Sampling 5
 - (c) Incidental Sample and Quota Sample 5
 - (d) Ordinal Scale and Metric Scale 5
4. Explain the following briefly giving suitable examples.
- (a) Coding of Data 5
 - (b) Document 5
 - (c) Sampling Frame 5
 - (d) Cross-sectional Study 5
5. (a) Compute mean, median, mode for the following frequency distribution. 4+4+4

CI	F
50-44	9
45-39	6
40-34	3
35-29	8
30-24	0
25-19	7

- (b) The Haemoglobin value in the blood of 8 children in std. XI is given below. Calculate the standard deviation and variance of the Haemoglobin values. **4+4**

Haemoglobin (g/dl)

9.0
12.0
11.5
8.0
11.3
14.0
12.5
15.0

6. (a) Enlist any two strengths and two limitations of the following research tools : **10**
(i) Official Records
(ii) Journals
- (b) Describe the characteristics of a good questionnaire. **10**
7. (a) Compute the product moment 'r' from the two variables i.e. height in cm (x) and weight in kg (y) of girls. **12**

(x)	130	127	142	136	150	152
(y)	50	45	62	45	52	65

- (b) Describe the two graphs to represent the Nominal and Ordinal data. **4+4**
8. Write short notes on **any four** of the following : **5+5+5+5**
- (a) Parametric Tests
(b) Stochastic Variables
(c) Controlled Trials
(d) Normal Probability Distribution
(e) Reliability of Research Tool.