02603

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

Term-End Examination

June, 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)   Parametric Test

(ii) Variance

(iii) Discrete Variable

(iv) Sampling Design

(v)   Population

(b) Give one example for each of the   5
following :

(i)   Determinant

(ii) Demographic Variable

(iii) Research Tool

(iv) Sampling Technique

(v)   Test of Mental Ability

(c) List the main limitations of correlational   5
studies.

2. "Lung Cancer is becoming common due to several reasons". Develop a research proposal to find out the reasons of lung cancer in your state. Proposal should include following points :

   (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 :

   (a) Official Records   5

   (b) Use of Rating Scale   5

   (c) Content Validity   5

   (d) Uses of Questionnaire   5

4. Differentiate between the following sets of terms :

   (a) Nominal Scale and Ordinal Scale   5

   (b) Histogram and Frequency Polygraph   5

   (c) Structured Interview and Unstructured Interview   5

   (d) Participant observation and Non-participant observation   5

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

C.I.	f
71 - 75	5
66 - 70	8
61 - 65	4
56 - 60	3
51 - 55	2
46 - 50	6
41 - 45	1

6. (a) Describe the advantages of formulating a research design. **6**

   (b) Describe the strengths of using case study method in research. **6**

   (c) Write the sources of data in the design of short studies. **8**

7. (a) 8 females and 6 male students enrolled in MFN course obtained the following score : **10**

   Female : 30 42 50 35 64 48 62 33

   Male : 34 44 58 60 38 47

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

   (b) The theory and practical marks of 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 :

   (a) Data Processing   **5+5+5+5**

   (b) External Criticism of Documents

   (c) Normal Probability Distribution

   (d) Uses of Rating Scales

   (e) Non-parametric tests

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