| MFN-009 |

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

00730

Term-End Examination

June, 2018

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.*

1. Define/Explain the following in **2 - 3** sentences   20
    each :

    (a)   Epidemiology

    (b)   Systematic Error

    (c)   Cohort

    (d)   Placebo

    (e)   Population

    (f)   Null Hypothesis

    (g)   Control in Experimental Research

    (h)   Representativeness of sample

    (i)   Participant observation

    (j)   Individual Test

2. You have to study malnutrition among children in the age group one to seven in your district. Develop research proposal with the following components :

(a) Title of Research Study   2

(b) Research Objectives   4

(c) Sample size & Sampling techniques   4

(d) Research Tools   5

(e) Method of Data Collection & Data Analysis   3+2=5

3. Explain the following in brief :

(a) Ethical Neutrality   5

(b) Uses of questionnaire   5

(c) Content validity   5

(d) Qualitative Data   5

4. Differentiate between the following sets of terms :

(a) Discrete and continuous variable   5

(b) Single blinding and double blinding   5

(c) Nominal scale and ordinal scale   5

(d) Thurstone scale and Likert scale   5

5. Test scores of 10 students enrolled in MFM-009 is given below :   20

Score : 20, 20, 17, 16, 14, 14, 10, 8, 6, 4

Calculate mean, median, mode, standard deviation and range for the above data.

6. (a) Describe the basic characteristics of a good hypothesis.   6

(b) Explain the points you will keep in mind while developing the research design.   6

(c) Describe the advantages and limitations of the case control studies.   8

7. (a) Calculate the product moment 'r' Pearson **10**
        from the following data for two variables
        x (Height) and y (Weight) for 10 children.

    x - 120, 125, 127, 125, 145, 140, 155, 160, 140, 161
    y - 45, 47, 50, 52, 55, 50, 58, 60, 55, 62

    (b) Describe the parametric and non- **10**
        parametric tests which can be used by the
        researcher while analysing their data.

8. Write short notes on **any four** of the following :
                                                5+5+5+5
    (a) Characteristics of normal probability curve
    (b) External criticism of data
    (c) Uses of documents as research tool
    (d) Validity of research tool
    (e) Cluster sampling

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