MASTER OF SCIENCE (DIETETICS AND FOOD SERVICE MANAGEMNT) M. SC. (DFSM)

Term-End Examination

June, 2020

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

   (a) Mortality

   (b) Demographic variable

   (c) Ethical neutrality

   (d) Conversational studies

(e) Random error

(f) Observational study

(g) Post test

(h) Sampling frame

(i) Numerical scale

(j) Parametric test

2. Iron deficiency anemia is very common in women in the age group 15 to 49 years. You have a prepare a research study for your district on this problem. Develop a research proposal with the following :

    (a) Title of the research study   2

    (b) Research questions   3

    (c) Research objectives   3

    (d) Sample and sampling techniques   3

    (e) Research design   3

    (f) Research tools   3

    (g) Method of Data collection   3

3. Explain the following in brief :

    (a) Uses of questionnaire in research   5

(b) Structured Interview   5

(c) Hypothesis testing   5

(d) Authenticity of data   5

4. Differentiate between the following sets of terms :

(a) Stochastic and deterministic variable   5

(b) Two-tailed and one-tailed tests of significance   5

(c) Purposive sample and Incidental sample 5

(d) Nominal scale and Ordinal scale   5

5. Test scores of 10 learners enrolled in MFN-009 is given below :   20

     50, 40, 30, 25, 29, 45, 21, 15, 48, 36

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

6. (a) Given below in tabular form is the (+) ve and (–) ve attitudes of male and female subjects regarding girls education.

Calculate the difference in attitudes between males and females subjects using Chi-square test : 　　　　　　　　15

	(+) ve Attitude	(–) ve Attitude
Female	7	5
Male	9	6

(b) What are Cohort Studies ? 　　　　5

7. (a) Describe the *five* methods used for descriptive statistical analysis. 　　10

   (b) Explain the different methods of graphical presentation of quantitative data. 　10

8. Write short notes on any *four* of the following :

   　　　　　　　　　　　　　　　5 each

   (a) True experimental design

   (b) Relative risk

   (c) Official records

   (d) Ensuring quality of data

   (e) Probability—a measure of uncertainty