

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

Term-End Examination

December, 2018

01802

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

Time : 3 hours

Maximum Marks : 100

Note :

1. *Answer five questions in all.*
2. *Question no. 1 is compulsory.*
3. *All questions carry equal marks.*

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1. (a) Define/Explain the following in 2 – 3 sentences each : 20
 - (i) Biostatistics
 - (ii) Sampling Error
 - (iii) Cohort Study
 - (iv) Placebo
 - (v) Sample

- (vi) Declarative Hypothesis
- (vii) Manipulation in Experimental Research
- (viii) Adequacy of Sample
- (ix) Non-Participant Observation
- (x) Group Test

2. "High Blood Pressure is becoming very common in people in the 20 – 30 years age group." You have to find out the causes of high blood pressure. Develop a research proposal with the following components :

- (a) Title of research study 2
- (b) Research questions 2
- (c) Research objectives 4
- (d) Sample size and sampling techniques 4
- (e) Research tools 5
- (f) Method of data collection and analysis 3

3. Explain the following in brief :

- (a) Descriptive variables 5
- (b) Limitations of questionnaire 5
- (c) Official records 5
- (d) Quantitative data 5

4. Differentiate between the following sets of terms :
- (a) Stochastic and Deterministic variables 5
 - (b) Single blinding and Triple blinding 5
 - (c) Nominal and Metric scales 5
 - (d) Numerical scale and Graphical scale 5

5. Test scores of 10 students enrolled in MFN – 009 course is given below :

30, 28, 21, 15, 18, 14, 24, 28, 17, 20.

Calculate mean, median, mode, standard deviation, variance and range for the above data. 20

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 cohort studies. 8
7. (a) Compute product moment correlation for the following data : 10

X	45	40	65	55	42	31	35	22
Y	24	16	15	42	40	37	27	42

- (b) Describe the various mortality and morbidity parameters you may study for epidemiological research. 10

8. Write short notes on any *four* of the following : 5+5+5+5

- (a) Stages of Research Process
 - (b) Internal Criticism of Data
 - (c) Uses of Journals as Research Tools
 - (d) Reliability of Research Tools
 - (e) Multistage Sampling
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