## 1144204

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MFN-009

## MASTER OF SCIENCE IN DIETETICS AND FOOD SERVICE MANAGEMENT (MSCDFSM) <br> Term-End Examination <br> June, 2019

## 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) Explain the following in $2-3$ sentences
each:
10
(i) Epidemiology
(ii) Research
(iii) Objective
(iv) Sample
(v) Reliability
(b) Give one example for each of the following : 5
(i) Forced Choice Ratings
(A-31) P. T. O.
(ii) Purposive sample
(iii) Close ended question
(iv) Use of Interview
(v) Declarative hypothesis
(c) Fill in blanks :
5
(i) Number of deaths in a group of people is called
(ii) The arithmetic average of a distribution is called
(iii) ............ is the measures of the likelihood of an event.
(iv) Data which are got by applying interval scale of measurement is ........... data.
(v) Listing of all sampling units in the target population is called ............'
2. You want to study the causes of cold and cough during winters in children in your city.
Design a brief research proposal with the following components :
(a) Research title 2
(b) Research questions and objectives, 5
(c) Research design 3
(d) Research methods and tools 4
(e) Data collection and analysis 6
3. Differentiate between the following by giving examples :
(a) Case control and cohort studies 5
(b) Nominal scale and ordinal scale , 5
(c) Power test and Speed test 5
(d) Participant observation and nonparticipant observation 5
4. Explain the following briefly by giving suitable example :
(a) Official records
5
(b) Qualitative data 5
(c) Histogram 5
(d) Content validity 5
5. (a) Compute product moment correlation for the following data:

| X | Y |
| :---: | :---: |
| 5 | 3 |
| 15 | 13 |
| 20 | 23 |
| 25 | 33 |
| 30 | 43 |
| 35 | 53 |
| 40 | 63 |

(A-31) P. T. O.
(b) Calculate the median and mode from the following grouped data when frequency is given : 10

| C. I. | Frequency |
| :---: | :---: |
| $70-74$ | 5 |
| $65-69$ | 3 |
| $60-64$ | 9 |
| $55-59$ | 6 |
| $50-54$ | 2 |
| $45-49$ | 7 |

6. (a) Explain the steps involved in conducting experimental research.
(b) Explain the characteristics of case study method. 10
7. (a) Differentiate between structured observation and unstructured observation. Explain the process of observation. $5+5$
(b) Describe, how as a researcher you will ensure the quality of data.

10
8. Write short notes on any four of the following :

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5+5+5+5+5
$$

(a) Demographic variables
(b) Collection of data
(c) Observation of behaviour
(d) Adequacy of sample
(e) Cluster sampling

