

Ph.D. IN FOOD AND NUTRITION (PHDFN)

Term-End Examination

June, 2018

00405

**RFN-001 : 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. Explain the following in 2 – 3 sentences

each :

2×10=20

- (a) Nutritional Epidemiology
- (b) One-Tail Test
- (c) Research
- (d) Hypothesis
- (e) Level of Significance
- (f) Power of the Test
- (g) Confidence Level
- (h) Limit of Accuracy
- (i) Bias
- (j) Alternative Hypothesis

2. Present an overview of epidemiological design strategies available for research. Briefly discuss the basic characteristics and types of any one design strategy, highlighting its strengths and weaknesses. 5+15=20
3. Define sampling. Discuss the various methods and techniques of sampling recommended for use in epidemiological research. 5+15=20
4. (a) Explain the characteristics of a good research tool, giving examples. 10
- (b) Briefly comment on the uses and limitations of 5+5
- (i) Attitude scale
- (ii) Questionnaires
5. Explain the following briefly giving examples :
- (a) Graphical representation of quantitative data 10
- (b) Normal probability distribution 10

6. From the data grouped in the frequency distribution given below, calculate the Mean, Median, Mode, Variance and Standard deviation.

20

<i>Class Interval</i>	<i>Frequency</i>
35 – 39	4
30 – 34	8
25 – 29	11
20 – 24	8
15 – 19	6
10 – 14	3

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

4×5=20

- (a) Percentiles
- (b) Product moment correlation
- (c) Uses of relative risk and odds ratio in research
- (d) Difference between parametric and non-parametric tests
- (e) Use of factor analysis in research