

Ph. D. (FOOD AND NUTRITION)
(PHDFN)

Term-End Examination

June, 2026

**RFN-001 : RESEARCH METHODS AND
BIostatISTICS**

Time : 3 Hours

Maximum Marks : 100

Note : (i) Attempt any **five** questions.

(ii) All questions carry equal marks.

1. (a) Classify the design strategies used in epidemiological research. 4
- (b) List the strengths of the following research studies : 4+4+4+4
 - (i) Correlation studies
 - (ii) Cross-sectional studies
 - (iii) Case-control studies
 - (iv) Clinical trials

2. (a) Present a brief review on the stages of the research process. You may substantiate your answer with the help of a flow chart. 10
- (b) What is a hypothesis ? Highlight the characteristics and different forms of hypothesis one may use for research purpose. 10
3. Differentiate between the following giving suitable examples :
- (a) Probability sampling and non-probability sampling 10
- (b) Questionnaire and Schedule 10
4. (a) Briefly discuss and illustrate the graphs you may use for presentation of quantitative, nominal and ordinal data. 12
- (b) Enumerate the various indicators of mortality and morbidity used in population studies. Substantiate your answer giving examples. 8

5. (a) The weight (kg) of 8 girls and 7 boys (age 2-5 yrs.) in an anganwadi was recorded and presented herewith : 10

Females	Males
8	7
12	16
15	20
9	14
10	9
14	10
16	12
7	

Calculate the significance of difference between the mean weight score of the girl and boys in the anganwadi.

- (b) Test scores of 10 learners enrolled in Nutrition class is given herewith (out of 100 marks) :

10, 36, 89, 92, 50, 45, 39, 19, 75, 15

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

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

5+5+5+5

- (a) Uses of parametric and non-parametric tests.
- (b) Measures of relationship used in research.
- (c) Qualitative data analysis—tools and methods.
- (d) Uses and limitations of attitude scale.
- (e) Characteristics of a good research tool.

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