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**B.Sc. IN RADIATION THERAPY (BRTT)**

**Term-End Examination**

**December, 2013**

**BAHI-045 : BASICS OF RESEARCH  
METHODOLOGY AND BIO-STATISTICS**

*Time : 3 hours*

*Maximum Marks : 70*

**PART-A**

1. Fill in the blanks : **1x10=10**

- (a) The characteristics of TRUE experiment are manipulation, \_\_\_\_\_ and randomisation.
- (b) True experiments are the most powerful method available to scientists for testing hypotheses of \_\_\_\_\_ .
- (c) The \_\_\_\_\_ is the entire aggregate of cases about which the researcher would like to make generalizations.
- (d) Reliability of an instrument is the \_\_\_\_\_ with which it measures the attribute it is supposed to be measuring.
- (e) \_\_\_\_\_ refers to the degree to which an instrument measures what it is supposed to be measuring.
- (f) \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ are the measures of central tendency.

- (g) The total area under the normal bell shaped curve is \_\_\_\_\_ .
  - (h) Correlation co-efficient ranges from \_\_\_\_\_ to \_\_\_\_\_ .
  - (i) Histogram helps to check \_\_\_\_\_ assumption of the data.
  - (j) \_\_\_\_\_ and \_\_\_\_\_ are the two types of errors that a researcher can make.
2. Write short notes on *any four* of the following : **3x4=12**
- (a) Differentiate between qualitative and quantitative design.
  - (b) Factor influencing sampling process
  - (c) Types of Instruments
  - (d) Compilation and tabulation of a data
  - (e) Uses of statistics

### PART-B

Attempt *any four* questions :

**6x4=24**

- 3. Explain about experimental and non-experimental design with suitable example.
- 4. A note on types of Sampling Techniques.
- 5. Write a note on methods of data collection.
- 6. With a simple example explain summation, presentation and interpretation of data.
- 7. Write a note on statistical packages and its application on research.

### PART-C

Attempt *any two* questions :

12x2=24

8. Write a note on :
    - (a) Population
    - (b) Pilot study
    - (c) Data collection procedure
  9. Scale of measurement and measures of central tendency with example.
  10. Explain normal probability and test of significance.
  11. Note on communication of the research.
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