

**Avinashilingam Institute for Home Science and Higher Education for
Women, Coimbatore-641043
Bachelor's Degree Examination – November 2017**

III Semester

**Class : II UG
Major : Physician Assistant**

**Time : 3 Hrs
Max.Marks : 100**

15BPAC12 Bio Statistics and Research

Part – A

10x1=10

Choose the correct answer

1. In non-probability sampling the selection of sample is based on -----
 - a. Equal chance
 - b. Unbiased
 - c. Optimum
 - d. Choice
2. Random selection of subjects is not essential in a -----
 - a. Experimental study
 - b. Quasi experimental study
 - c. Case study
 - d. Diagnostic study
3. When null hypothesis is rejected and alternate is accepted it is -----
 - a. Type III Error
 - b. Type I Error
 - c. Error
 - d. Type II Error
4. Data collected based on rank order is -----
 - a. Nominal data
 - b. Ordinal data
 - c. Ratio data
 - d. Interval data
5. One of the basic principles of an experimental design is -----
 - a. Raudomization
 - b. Approximation
 - c. Equalization
 - d. Clarification
6. In interview method oral verbal stimuli elicits -----
 - a. Written response
 - b. Oral response
 - c. Symbolic response
 - d. Pictorial response
7. The causal variable is also known as -----
 - a. Independent variable
 - b. Dependent variable
 - c. Variable
 - d. Extraneous variable
8. A hypothesis states there is no difference is known as -----
 - a. Complex Hypothesis
 - b. Null Hypothesis
 - c. Alternate Hypothesis
 - d. Simple Hypothesis
9. In paired t test the data are collected both -----
 - a. Before and After
 - b. After only
 - c. Before only
 - d. Always
10. Birth and Death registration come under -----
 - a. Health statistics
 - b. Vital statistics
 - c. Inferential statistics
 - d. Descriptive statistics

Part – B

5x6=30

Answer the following

Answer should not exceed 400 words or two pages

11. a. Enlist the characteristics of good research.
(or)
11. b. Define Hypothesis. Explain the uses of hypothesis and also enlist the types of Hypothesis.
12. a. Describe about variables.
(or)
12. b. Explain Hospital statistics.
13. a. Enumerate Non-Probability Sampling techniques.
(or)
13. b. Explain Independent 't'-test and its applicability.
14. a. Importance of sampling.
(or)
14. b. Criteria of a good sample.
15. a. Write about Pilot study.
(or)
15. b. Write about Questionnaire method.

Part – C

5x12=60

Answer the following

Answer should not exceed 800 words or 4 pages

16. a. Write an essay on Review of Literature.
(or)
16. b. Write an essay on Research Designs & the advantages & its disadvantage of each design.
17. a. Define Statistics and explain the uses of statistics in health studies.
(or)
17. b. Reliability and validity of measuring instrument.
18. a. Selecting a research problem and its criteria.
(or)
18. b. Writing a Research Report.
19. a. Importance of tabulating and graphic presentation of data.
(or)
19. b. Define interview method and explain the types of interviews & its uses.
20. a. Calculate Mean and Median from the following data:

| | | | | | | | |
|---|------|-------|-------|-------|-------|-------|-------|
| x | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
| f | 6 | 4 | 2 | 3 | 5 | 4 | 1 |

(or)

20. b. Calculate Chi-Square from the following data and find out whether the serum treatment is effective.

| | Paralysed | Not Paralysed | Total |
|----------|-----------|---------------|-------|
| Serum | 65 | 135 | 200 |
| No Serum | 75 | 225 | 300 |
| Total | 140 | 360 | 500 |

Table value for 1 Degree of freedom at 5% level of significance is 3.84.