



## BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – B.Sc.(PSY)-Hons-2022

Course Name – Statistics and Research Methodology- I

Course Code - PSYC102

( Semester I )

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Asst. Kolkata - 700125

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Illustrate the definition of Sampling from the following
- |   |                                       |
|---|---------------------------------------|
| a) Process used in statistical analysis | b) Process used in preparing students |
| c) Process used in building trust       | d) Process used in understanding      |
- (ii) Choose the variable which is controlled and manipulated by the Researcher in statistical analysis and research methods:
- |                        |                         |
|------------------------|-------------------------|
| a) Extraneous variable | b) Independent Variable |
| c) Dependent Variable  | d) None                 |
- (iii) Identify the measure of central tendency includes the magnitude of scores
- |           |          |
|-----------|----------|
| a) Mean   | b) Mode  |
| c) Median | d) Range |
- (iv) Choose the statistical method which allows researchers to draw conclusions about a population from a sample?
- |                           |                         |
|---------------------------|-------------------------|
| a) inferential statistics | b) summary statistics   |
| c) population statistics  | d) qualitative research |
- (v) Justify why descriptive statistics are useful:
- |   |  |
|---|--|
| a) tell us whether a study is significant | b) infer from the sample to the population |
| c) summarize large amounts of data        | d) test a hypothesis                       |
- (vi) Students receive the following scores on a happiness questionnaire: 25, 30, 30, 35, 40, 20. Solve the mean:
- |       |       |
|-------|-------|
| a) 30 | b) 25 |
| c) 20 | d) 40 |
- (vii) Calculate mean from the given data set: 23,24,23,25,25,26
- |          |          |
|----------|----------|
| a) 23.76 | b) 25.90 |
| c) 24.33 | d) 19.12 |
- (viii) The variable which is not manipulated by the experimenter, but only statistically measured is
- |                        |                         |
|------------------------|-------------------------|
| a) Extraneous variable | b) Controlled variable  |
| c) Dependent variable  | d) Independent variable |

- (ix) Choose the range value of given data set:  
12,12,14,15,16,17,12,15,16,17,19,12,10,11,16,15  
a) 8  
b) 9  
c) 4  
d) 7
- (x) Select one level of statistical measurement which has both magnitude and equal interval  
a) Nominal  
b) Ordinal  
c) Equal Interval  
d) Ratio Scale
- (xi) Evaluate which of the following statement is not correct:  
a) Statistics is a tool of measurement  
b) Statistics is used in research purpose  
c) Statistics gives us descriptive and inferential data  
d) Statistics does not have scientific value
- (xii) Identify from the following which is not associated with use of scientific method in psychological research:  
a) To produce knowledge through observation and experiment.  
b) to base knowledge exclusively on common sense and opinion.  
c) to base knowledge on empirical evidence.  
d) to discover the truth.
- (xiii) Identify Which of the following contribute to the development of knowledge and theory in psychology?  
a) Evidence that supports a hypothesis.  
b) Evidence that contradicts a hypothesis.  
c) Evidence that tests a hypothesis.  
d) All of the above.
- (xiv) Define Good research questions as:  
a) Accurate  
b) Illogical  
c) Unclear  
d) Vague
- (xv) Identify the method of drawing a random sample.  
a) Fishbowl draw  
b) Computer program  
c) Random generated numbers  
d) All of them

**Group-B**

(Short Answer Type Questions)

3 x 5=15

2. Explain cumulative frequency graph (3)  
3. Determine the features of skewed distribution. (3)  
4. Differentiate between bar graph and pie chart. (3)  
5. Calculate mean from the given frequency distribution X- f- 21-30 5 31-40 6 42-50 7 51-60 2 (3)  
61-70 5 (3)  
6. Create the class interval from the given ungrouped data set:  
12,14,15,16,29,20,25,30,34,37,40,47,50,54,51

OR

write the differences between histogram and polygon (3)

**Group-C**

(Long Answer Type Questions)

5 x 6=30

7. Compare between stratified random sampling and cluster sampling. (5)  
8. Define the concept of Descriptive statistics. (5)  
9. (5)

Assess the Mean, Median and Mode

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Class	$f_i$
0-10	3
10-20	4
20-30	6
30-40	4
40-50	8

10. Prepare class interval, frequency distribution and cumulative frequency of the following ungrouped data set: 403,401,410,411,427,405,423,430,425,428,418,419,409,410 (5)
11. Assess the pros-cons of descriptive and inferential statistics (5)
12. Analyze the usefulness of placebo in a research. (5)

OR

Criticize the non-probability sampling in statistical analysis and research methods. (5)

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