



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(OTT)-2021/B.Sc.(OTT)-2022

Course Name – Research Methodology and Biostatistics

Course Code - BOTTE604

(Semester VI)

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) You measure blood pressure from different student groups. Identify the type of research.
 - a) Descriptive
 - b) Analytical
 - c) Qualitative
 - d) Applied
- (ii) You want to write a research proposal. Select the items you should incorporate into the proposal.
 - a) Work plan
 - b) Methodology
 - c) Timeline of study
 - d) All of these
- (iii) Identify the correct option to fill the gap: Secondary data can almost always be obtained more quickly and at a lower cost than _____ data.
 - a) Research
 - b) Tertiary
 - c) Collective
 - d) primary
- (iv) Select the middle portion of a group of members.
 - a) The measure of central tendency
 - b) The measure of variability
 - c) The measure of shape
 - d) The measure of association
- (v) Compute the mean of two numbers X and Y.
 - a) $(x+y)*2$
 - b) $(x+y)/2$
 - c) $xy/2$
 - d) $2/(x+y)$
- (vi) Compute the sum of all numbers, if the average of 4 numbers is 20.
 - a) 16
 - b) 24
 - c) 80
 - d) 5
- (vii) Select what you mean by population.
 - a) All of the people involved in carrying out the research
 - b) Every person or entity that might be included/that might participate in the research
 - c) All the researchers involved in the research
 - d) The researcher and research supervisor

- (viii) Choose the mode of the given data: 2, 4, 5, 6, 4, 3, 5, 6, 7, 3, 3, 5, 6, 6, 4, 5, 6
- a) 4
b) 5
c) 6
d) 7
- (ix) Select the median of the values -5, -8, -10, 0, 6, 8, 10.
- a) -5
b) 6
c) 0
d) 10
- (x) Identify the basic rule of probability sampling.
- a) Each member of the population has an equal probability of being selected for inclusion in the galaxy
b) Each member of the population has an equal probability of being selected for inclusion in the universe
c) Each member of the population has an equal probability of being selected for inclusion in the pyramid
d) Each member of the population has an equal probability of being selected for inclusion in the sample
- (xi) Identify the main problem in using secondary data.
- a) the data available may not be exactly the data required
b) It usually is a quantitative data
c) it is usually qualitative data
d) None of these
- (xii) Select the correct option to fill in the blank: Response rate in research project is _____.
- a) A record of the speed at which respondents respond in a data gathering exercise
b) A count of the number of responses received in a data gathering exercise
c) A record of the speed at which a research supervisor responds to a request for help during the research project
d) A count of the number of valid responses received in a data gathering exercise
- (xiii) Which of the following is a data presentation option.
- a) Bar diagram
b) Pie diagram
c) Line diagram
d) All of these
- (xiv) You want to study the effect of a drug in a patient group. Select the you of research you will perform.
- a) Clinical trial
b) Case study
c) Epidemiological study
d) Regression study
- (xv) Identify the median: 2, 4, 6, 8, 10, 12, 14
- a) 6
b) 7
c) 8
d) 9

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write the advantages of telephonic interviews in collection of primary data. (3)
3. It has been found that the use of sterilized needle decreases the rate of disease transfer. (3)
Identify the dependent variable and independent variable in this procedure.
4. Give examples of some controlled variables. (3)
5. Discuss the role of ethics committee in conducting a research. (3)
6. You are trying to calculate the mean of the marks obtained by 3 students. The marks were 45, 42 and 39. You calculated the mean as 41. Find error in the calculation. (3)

OR

In a research protocol, the effect of the duration of sleep on headache was assessed in same temperature, humidity and light. Analyze different variables in this research protocol. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. In a fruit basket, there are 9 apples, 18 grapes, and 9 mangoes. Draw any suitable diagram (5)
to represent this data.
8. Differentiate between analytical study and descriptive study. (5)
9. The hospitalization period for COVID19 in 6 patients were 3, 10, 21, 11, 11 and 10 days. (5)
Calculate the standard deviation of hospitalization period of COVID19 disease.
10. Compare between primary data and secondary data in research. (5)
11. Discuss on census and state its merits and demerits. (5)
12. Summarize the criteria for a good research protocol. (5)
- OR**
- Justify the statement: Data acquisition is very important in conducting a research. (5)

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