



## BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – B.Optomtry-2019/B.Optomtry-2020

Course Name – Research Methodology & Biostatistics

Course Code - BOPT0506

( Semester V )

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) Name which type of Research is mainly concerned with generalisations and with the formulation of a theory
 

a) Quantitative research	b) Qualitative research
c) Conceptual research	d) Fundamental research
  - (ii) Select the correct research among the following which aims at finding a solution for an immediate problem facing a society or an industrial/business organization
 

a) Quantitative research	b) Applied research
c) Conceptual research	d) Fundamental research
  - (iii) Identify the correct one which describe what Observation is
 

a) The role the research supervisor takes in the research process	b) A key data gathering method in the social sciences
c) The role the researcher takes in the research process	d) Near observation and distant observation
  - (iv) Relate which among the following In a pilot study researcher tests
 

a) The researcher tests the design of the research project, usually the data gathering method(s) to be used in the research project, before carrying out the research	b) The research supervisor carries out the research
c) The research project is designed but it is not carried out	d) The student researcher learns how to carry out research
  - (v) Select the correct term which explains that researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material
 

a) descriptive research	b) Applied research
c) fundamental research	d) Analytical research
  - (vi) Apply the correct term among the following which explains the basic rule of probability sampling
 

a) That each member of the population has an equal probability of being selected for inclusion in the galaxy	b) That each member of the population has an equal probability of being selected for inclusion in the sample
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- c) That each member of the population has an equal probability of being selected for inclusion in the pyramid
- d) That each member of the population has an equal probability of being selected for inclusion in the universe
- (vii) Employ the correct option among the following in which researchers have a duty to
- a) protect the life, health and dignity of subject
- b) Integrity, right to self-determination and privacy
- c) confidentiality of personal information
- d) all of these
- (viii) Apply the correct option which provides an analytical framework of Belmont Report for evaluating research using three ethical principles
- a) Respect for persons
- b) Beneficence
- c) Justice
- d) all of these
- (ix) Explain which of the following did duplicate publications violate
- a) International copyright laws
- b) waste valuable resources.
- c) Distorts apparent productivity
- d) All of these
- (x) Select the correct option which the Guidelines for GCP is an international ethical and scientific quality standard for
- a) Designing
- b) Conducting
- c) recording and reporting trial
- d) All of these
- (xi) Choose the correct one which states the value separating the higher half from the lower half of a data sample, a population, or a probability distribution
- a) Mode
- b) Mean
- c) Median
- d) none of these
- (xii) Select the correct term in which the value that appears most often in a set of data values
- a) Mean
- b) Median
- c) Mode
- d) none of these
- (xiii) Match the purpose of research proposal
- a) To discuss research efforts of others who have worked on related management question
- b) To Present management question to be researched and its question
- c) To generate monetary resources for organization
- d) None of these
- (xiv) Infer which one among the following gives us the idea of the shape of data
- a) Skewness
- b) Kurtosis
- c) Covariance
- d) None of these
- (xv) Select among which of the following one the correlation coefficient determines
- a) A specific value of the y-variable given a specific value of the x-variable
- b) A specific value of the x-variable given a specific value of the y-variable
- c) The strength of the relationship between the x and y variables
- d) all of these

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write differences between probability sampling and Non-probability sampling (3)
3. Explain features of good literature review (3)
4. Write two web based search tools and one Library catalogue (3)
5. Explain about primary and secondary literature resources (3)
6. Write the definition and usage of mode by giving example (3)

OR

Write 3 software which can be used for statistical analysis (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe different types of research (5)
8. Explain research problem and define main issues which should receive the attention of the researcher in formulating the research problem? (5)
9. Distinguish between cluster sampling and area sampling (5)
10. Explain advantages and limitation of case study method (5)
11. Describe in detail about Scientific referencing (5)
12. write down different parametric and non parametric tests (5)

**OR**

Summarize detailed procedure of hypothesis testing (5)

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