

**P56**

 **M-5251**

Sl.No. **0004**

Total No. of Pages : 7

**Ph.D. Course Work Examination, January 2017**  
**AUDIOLOGY AND SPEECH AND PATHOLOGY**  
**Research Methodology**

**Time : 3 Hours**

**Max. Marks : 70**

**Instructions :** 1) *Answer all the questions in Part A. Each question carry one mark.*  
2) *Answer any five questions from Part B. Each question carry 10 marks.*

**PART - A**

**Q1)** What is a narrowly defined aspect of an event that can be measured and manipulated referred to as?

- a) Variable
- b) Hypothesis
- c) Bias
- d) Research design

**Q2)** Which of the following is 'true' for group designs?

- a) Has logical generality
- b) Can predict treatment effects
- c) Sensitive to individual's uniqueness
- d) Has strong empirical manipulations

**Q3)** A type II error occurs when \_\_\_\_\_.

- a) there is a failure to reject the false null hypothesis
- b) rejecting a true null hypothesis
- c) there is a failure to accept the false null hypothesis
- d) none of the above

**P.T.O.**

**Q4)** What variables does a randomized block design have?

- a) Two active variables only
- b) Two assigned variables only
- c) At least one active variable and assigned variable
- d) None of the above

**Q5)** Quick changes in experimental condition is a form of control used in some single-subject designs and is referred to as \_\_\_\_\_.

- a) criterion-referenced change
- b) rapid alterations
- c) reinstatement of treatment
- d) replication

**Q6)** In the ABACA/ACABA design, when the first treatment may be so effective as not to leave any opportunity for the second treatment to show its effect. Then what is the condition called?

- a) relative effect
- b) confirmatory effect
- c) ceiling effect
- d) withdrawal effect

**Q7)** What is referred to as a study of clinical versus non-clinical groups?

- a) Ex-post facto
- b) Clinical and Applied Research
- c) Experimental Research
- d) Standard-Group Comparison

**Q8)** Which of these is true for a circular scale?

- a) an interval scale, has no true zero and designation of high or low values is arbitrary.
- b) a nominal scale, has no true zero and designation of high or low values is arbitrary.
- c) an ordinal scale, has no true zero and designation of high or low values is not arbitrary.
- d) ratio scale, has a true zero and designation of high or low values is not arbitrary.

**Q9)** What is the particular t-test is called whenever two different groups are compared?

- a) t-test for unrelated measures
- b) t-test for correlated groups
- c) t-test
- d) Dependent t-test

**Q10)** Which of these is 'not true' for a group design?

- a) It offers a means of evaluating the differential distribution of variables in defined populations.
- b) It is practical in clinical sciences that emphasize the experimental method in treatment evaluation.
- c) It is not productive in the development of treatment packages.
- d) It is effective in predicting treatment effects based on diagnostic categories.

**Q11)** When the individuals in a sample have the same variety of characteristics as the population, what is referred to as?

- a) Matched sample.
- b) Representativeness.
- c) Randomisation.
- d) Controlled population.

**Q12)** The statement: 'There will be a difference in scores between group x and group y' is suggestive of use of \_\_\_\_\_.

- a) two-tailed test
- b) one-tailed test
- c) number of degree of freedom
- d) single dependent variable

**Q13)** What is the estimate referred to as when it is arrived at from sample statistics?

- a) population mean
- b) sampling frame
- c) saturation point
- d) sampling design

**Q14)** A hypothesis in which a researcher stipulates that there will be a difference but does not specify its magnitude is referred to as \_\_\_\_\_.

- a) Hypothesis of point-prevalence
- b) Hypothesis of difference
- c) Null Hypothesis
- d) Alternate hypothesis

**Q15)** The problem of losing subjects in the course of an experiment is referred to as \_\_\_\_\_.

- a) attrition
- b) Hawthorne effect
- c) counter-balance
- d) withdrawal

**Q16)** Which of these is referred to as a syllogism?

- a) It is a set of unassumed and deduced statements
- b) It is a set of assumed and inductive statements
- c) It is a set of unassumed and inductive statements
- d) It is a set of assumed and deduced statements

**Q17)** Which of these is “false” statement?

- a) A small value (near zero) for the z-score statistic is evidence that the null hypothesis should be rejected
- b) A z-score near zero indicates that the data support the null hypothesis
- c) As alpha gets smaller, the critical region is moved further out into the tails of the distribution.
- d) None of the above

**Q18)** What is a semi-interquartile range? It is one-half the distance between the \_\_\_\_\_.

- a) second quartile and the fourth quartile
- b) first quartile and the second quartile
- c) first quartile and the third quartile
- d) second quartile and the third quartile

**Q19)** When is a binomial distribution used?

- a) Whenever the measurement procedure simply classifies individuals into exactly two categories.
- b) Whenever the measurement procedure simply classifies individuals into exactly three categories.
- c) Whenever the measurement procedure simply classifies individuals into two or more categories.
- d) Whenever the measurement procedure simply classifies individuals into three or more categories.

**Q20)** Which is the technique that enables experimenter to control and measure sequencing effects by arranging all possible sequences of treatments and then random assigning subjects to each sequence?

- a) Carry-over effect
- b) Randomizing
- c) Counter-balancing
- d) Correlation effect

### PART - B

**Q21)** What are the advantages of using "Observation" as a method in data collection in Aphasia research.

**Q22)** Highlight five differences between Qualitative and Quantitative research. Give examples.

**Q23)** Describe the formate for writing scientific reports.

**Q24)** How would a multiple baseline design of research study be useful for a subject with language impairment following Right hemisphere Damage?

**Q25)** Delineate the different study design used in research related to Developmental stuttering.

**Q26)** Are case studies useful in research related to communication disorders?

**Q27)** There are instances when mixed dysarthria of spastic-flaccid type can progress. Write a research design to study this aspect.

**Q28)** Describe any two non-parametric tests . Give illustrations one from the area of speech disorder and the other from the area of language disorder.

**Q29)** Write about how predictive methods and explanatory methods of research can be used in speech-language pathology.

**Q30)** Describe cluster analysis and discriminant analysis with illustrations.

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