ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE – 06

Ph.D. Course Work Examination – 2023-24

SUBJECT: ADVANCED RESEARCH METHODOLOGY IN SPEECH AND HEARING

Time: 03 hours

Max. Marks: 70

PART – A

Attempt all multiple choice questions, each question carries one mark.   20 X 1 = 20

01.   The assumption of sphericity can be compared to the assumption of _____.

a) Homogeneity of variance in between-groups   b) Normality   c) Addivity in linear models   d) Muticollinearity

02.   Which of the following test cannot be used for comparing two related conditions?

a) Sign test   b) Wilcoxon Signed-rank test   c) Mann-Whitney test   d) McNemar test

03.   The change in the outcome associated with a unit change in the predictor is represented as _____.

a) Slope   b) Y-intercept   c) Residual   d) Correlation coefficient

04.   The standard deviation of sample means is known as _____.

a) Mean deviation   b) Average deviation   c) Standard error   d) Sampling error

05.   In ROC, X-axis represents_____.

a) Sensitivity   b) 1-sensitivity   c) 1-specificity   d) Specificity

06.   Outliers are those observations that are further away from Q_3 than _____.

a) 1.5 IQR   b) 0.5 IQR   c) 0.75 IQR   d) 1 IQR

07.   Probability of detecting a difference when it is present, is referred as _____.

a) Confidence level   b) Power   c) Type I error   d) Type II error

08. Estimating the overall effect size reported in the literature for a particular treatment is _____.

    a) Scoping review   b) Meta-analyses   c) PRISMA   d) Multivalent research

09. An example of within the subject design is _____.

    a) Pre-post treatment   b) Standard Group   c) Survey   d) Correlational

10. As per ICMR guidelines, retrospective case file analyses are categorized as _____.

    a) Nil risk   b) Minimal risk   c) Less than minimal risk   d) Minor risk

11. One of the registries to register systematic reviews and meta-analyses is _____.

    a) PRISMA   b) Google Scholar   c) PubMed   d) PRSPERO

12. Which of the following is not a reference manager?

    a) Mendeley   b) Zotero   c) APA   d) Endnote

13. Which of the following is a single-subject research design?

    a) Withdrawal design   b) Bivalent   c) Standard group comparison   d) RCT

14. An example of Plagiarism detection software is_____.

    a) Turnitin   b) Zotero   c) Lab manager   d) Copy check

15. Which of the following is an example of a random sampling technique?

    a) Cluster sampling   b) Quota sampling   c) Convenience sampling   d) Purposive sampling

16. Cause-and-effect relationships can be established in _____.

    a) Experimental research   b) Correlational research   c) Case study research   d) Cross-sectional research

17. Factorial research design is an example of _____.

    a) Between-group design   b) Within group design   c) Survey research   d) Longitudinal design

18. The measure of the frequency with which the average article in a journal has been cited in a particular year is _____ .

   a) H Index   b) Impact factor   c) SJIP   d) Cite score

19. A detailed description of the participants can be found in _____ section.

   a) Introduction   b) Results   c) Methods   d) Discussion

20. Identify the open-access journal among the following:

   a) Ear and hearing   b) JSLHR   c) Frontiers in   d) Brain and
                                          Neuroscience   Language

PART – B

Write an Essay on any five of the following.   **5 X 10 = 50 Marks**

1. Write an essay on statistical techniques for analysing relationships among variables.

2. Write an essay on statistical techniques for analysing differences in the data.

3. Briefly explain various non-parametric tests used in research.

4. Describe the ethical principles advocated in the Helsinki Declaration.

5. You are designing treatment efficacy research involving a prolongation technique for adults with stuttering. Highlighting the important points to be considered while writing an informed consent form for your research.

6. What is sampling? Describe different sampling techniques.

7. Describe the different methods of data collection.

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