Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA)
A Deemed to be University established under Section 3 of the UGC Act, 1956

Program: PhD (Yoga) CW1   **Semester:** 1st Sem

Subject: Research Methodology -1   **Subject Code:** PhDT-103

Semester Period: Sept, 2020 – Feb, 2021   **Batch:** Sep, 2020

Date: Feb 4th, 2021   **Time:** 10 am – 12 Noon

Examination Mode: Regular   **Total Marks:** 50

....

General Instructions:
- Write your registration number on the rectangular space provided here
- Do not write anything on the question paper
- Read all the questions carefully and then start writing

Reg No:

....

Multiple Choice Questions [Attempt all]   **5*2= 10 marks**

1. "To study effect of Bharamari Pranayama on memory in school children", is an example of

    a) Experimental and Basic research
    b) Quantitative and Basic research
    c) Applied and Experimental research
    d) Theoretical and Basic research

2. Cohen's d is a measure of
    a) Validity
    b) Reliability
    c) Effect Size
    d) Sample size

3. The type of suitable research question: "Does practice of Trataka (Eye gazing) improve concentration?"
    a) Descriptive
    b) Correlational
    c) Causal
    d) None of the above

4. Sample size is calculated before the study so that
    a) we get enough effect size
    b) we achieve sufficient power
    c) we reduce type I error
    d) we increase internal validity

5. Reducing confounding factors in an experimental design, will directly enhance
    a) Internal validity
    b) External validity
    c) Construct validity
    d) Statistical validity

Short Essay [Attempt any Four]   4*5 = 20 marks

6. A researcher decides to study the effect of yoga on 30 participants. He randomly divides them into two groups and gives yoga intervention to one group and promises the other group to give yoga after the study is completed. Suggest suitable design and analysis.
7. Explain types of variables.
8. Explain Narrative review, systematic review and meta-analysis.
9. Explain Research Ethics.
10. What are probability and non-probability sampling techniques? What are their advantages and disadvantages?
11. Suggest methods of controlling Type-I and Type-II errors.
12. What is sample size calculation and how is it done?

Long Essay [Attempt any Two]   2*10 = 20 marks

13. Describe Null Hypothesis Significance Testing (NHST).
14. Describe various experimental designs with suitable examples.
15. Explain in detail validity and reliability.
16. Describe in detail the process of literature survey.
17. Explain Central Limit Theorem. If standard deviation is 21 and sample size is 49, what will be the standard error. How will the standard error be influenced on increasing the sample size?