

**2022**

**RESEARCH PROCESS IN PHYSICAL EDUCATION  
AND SPORTS SCIENCE**

**Paper: MPCC-101**

**Full Marks: 70**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

***Answer the following questions.***

1. Describe the importance of Research in Physical Education & Sports. Explain the method of collecting data and its salient features. 5+10

***Or,***

Define research. Describe different types of research conducted in Physical Education with appropriate examples. 3+12

2. Define variable? Mention the different type of variables with example? What is historical criticism in research? 2+6+7

***Or,***

What are the steps of Experimental Research? Explain various kinds of true experimental research designs. 8+7

3. Define and describe Sample and Population? Mention sampling and its importance? 4+4+7

***Or,***

What do you mean by Variables and Parameter? Write about different kinds of non-probability sampling techniques. 5+10

4. Write Notes on following (*any two*): 7.5× 2
- a) Different kinds of Hypothesis
  - b) Parts of a Research Report
  - c) Methods of literature review
  - d) Methods of writing research proposal

5. Answer the following MCQs by choosing the right option given below and writing it on your answer script (any ten):

1x10

- a) In testing of hypothesis, a Type-II error is committed when a
- True null hypothesis is rejected
  - False null hypothesis is accepted
  - True alternative hypothesis is accepted
  - Alternative hypothesis is rejected
- b) If sample size increases, then
- The Standard error increases
  - The standard error decreases
  - The standard error remains same
  - None of these
- c) In a research report, preliminary matters include:
- Title page, Acknowledgement, Appendices
  - Reference, Title page, Acknowledgement
  - Title page, Acknowledgement, Table of Content
  - Table of content, Reference, Title page
- d) What makes cluster sampling better than other sampling techniques?
- More heterogeneity within a cluster
  - A greater homogeneity within a cluster
  - Greatly specified characteristics of the units
  - Strict statistical procedures of drawing a calculation
- e) The sampling method chosen when the number of special population are difficult to locate is:
- Quota sampling
  - Purposive sampling
  - Snowball sampling
  - Dimensional sampling
- f) Historical research is also known as
- Biological research
  - Demographic research
  - Retrospective research
  - Introspective research
- g) When a research problem is related to homogeneous population, the most suitable method is
- Cluster sampling
  - Stratified sampling
  - Snowball sampling
  - Convenient sampling

- h) The method in which every individual has an equal chance of being selected is called
- i) Popular sampling
  - ii) Random Sampling
  - iii) Sequential Sampling
  - iv) Snowball Sampling
- i) Which of the following is the first step in starting the research process?
- i) Searching sources of information to locate problem.
  - ii) Survey of related literature
  - iii) Identification of problem
  - iv) Searching for solutions to the problem
- j) A good hypothesis should be
- i) Formulated in such a way that it can be tested by the data
  - ii) Precise, specific and consistent with established fact.
  - iii) Of limited scope and should not be global significance.
  - iv) All of the above
- k) Which of the following can best be described as categorical variable?
- i) Age
  - ii) Annual income
  - iii) Religion
  - iv) Grade point average
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