Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD [now MoE]
Re-accredited with A++ Grade by NAAC. CGPA 3.65 /4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Bachelor of Physical Education Degree Examination – May 2025
IV Semester

Class : II B.P.Ed.

Time : 3 Hours
Max. Marks : 100

23BPDE4A Discipline Specific Elective (DSE) - IV:
Research and Statistics in Physical Education

Course Outcomes:

CO1: Identify the research problem in the field of Physical Education and Sports
CO2: Know to summarize the various research literature
CO3: Understand and apply the basics of statistics in research
CO4: Organize the samples and sampling techniques which is relevant to the study
CO5: Apply the basics of statistics in minor research project for evaluation

Part A **10 x 1 = 10**
Choose the Correct Answer

1. Which type of research focuses on solving real-world problem? **CO3 K1**
   a. Evaluation research b. Experimental research
   c. Basic research d. Applied research

2. Research related to abstract ideas is also called? **CO2 K2**
   a. Basic research b. Qualitative research
   c. Action research d. Evaluation research

3. Which are the features of case study method? **CO1 K3**
   a. It is appreciative b. It is descriptive
   c. It is mechanical d. It is grounded theory

4. A hypothesis cannot be expressed in which form? **CO3 K1**
   a. Assertive b. Comparative c. Declarative d. Interrogative

5. What sampling method is used when members of a specific population are difficult to find? **CO1 K2**
   a. Snowball sampling b. Availability sampling
   c. Dimensional sampling d. Purposive sampling

6. Which method of sampling is used for non-homogeneous groups? **CO1 K3**
   a. Cluster sampling b. Simple random sampling
   c. Stratified sampling d. Systematic sampling

7. Which statistical tool is used to analyse the relationship between variables? **CO2 K1**
   a. Mean b. Correlation c. Mode d. Standard Deviation

8. The Rank order-correlation is named after which great statistician? **CO3 K2**
   a. Spearmen b. Karl Pearson c. Sir Ronald A. Fisher d. Thomas Bayes

9. Which statistical measure can be calculated using the data repeated frequently? **CO2 K1**
   a. Mode b. Mean c. Geometric Mean d. Median

10. Which statistician is credited with the theoretical development of the t-distribution? **CO2 K2**
    a. Kelly b. Gusset c. Wundt d. William Sealy Gosset

Part B 5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

11.a. Identify the need and importance of research in physical education and sports. **CO1 K1**

(or)

11.b. Differentiate between limitation and delimitations in research **CO3 K2**

12.a. Describe the process of hypothesis formulation with suitable examples **CO2 K1**

(or)

12.b. Discuss historical research and explain the role of primary and secondary sources **CO3 K2**

13.a. Examine the features of good research design and its importance in conducting research. **CO1 K1**

(or)

13.b. Enumerate the different types of research design and their classifications. **CO2 K1**

14.a. Define statistics and its importance in research **CO1 K1**

(or)

14.b. Demonstrate the process of constructing a frequency distribution table from raw scores and its graphical representation. **CO3 K2**

15.a. Define measures of variability and their importance with the calculation of standard and mean deviation. **CO2 K1**

(or)

15.b. Explain about Standard Deviation. **CO2 K2**

Part C 5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

16.a. Summarize the types and classifications of research in physical education and sports. **CO2 K5**

(or)

16.b. Explain the process of selecting and formulating a research problem. **CO5 K3**

17.a. Explain the need of experimental research with example. **CO5 K4**

(or)

17.b. Illustrate the methods of collecting reviews in related literature with suitable examples **CO5 K4**

18.a. Estimate the significance of sampling in research and effectiveness of different sampling methods. **CO2 K2**

(or)

18.b. Criticize the characteristics of sampling and the need of sampling techniques in research. **CO3 K4**

19.a. Estimate the significance of measures of central tendency and the difference between mean, median and mode. **CO3 K4**

(or)

19.b. Compute the mean, median, and mode for a given data set and establish their role in data interpretation. **CO2 K3**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
20	22	30	35	38	22	20	22	36	22	34	31	22	24	23

20.a. Explain the difference between Pearson's and Spearman's correlation. **CO3 K4**

(or)

20.b. Differentiate the independent and dependent 't' test and explain their computation by creating own data. **CO4 K4**

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