

2019

## RESEARCH AND STATISTICS IN PHYSICAL EDUCATION

Paper : CC - 403

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.*

1. (a) Define research. Write down the importance of research in Physical Education. Classify research on the basis of their purpose with brief explanation. 2+4+9

*Or,*

- (b) What is research problem? Write down the scope of research in Physical Education and Sports. Write down the sources of research problems. Write down the criteria of a good research problem. 2+4+3+6

2. (a) Explain the characteristics of a Questionnaire for data collection. Write down the importance of interview method for collecting data. Write down the qualities of a good observer for collecting data. 5+5+5

*Or,*

- (b) Write down the sources of literature for reviewing. What is research report? Write down the differences between research proposal and research report. Briefly explain the main body of a research report. 3+2+3+7

3. (a) Define statistics. Write down the importance of statistics in the field of Physical Education and Sports.

Calculate the mean and median from following data :

Class Intervals (cms)	Frequency
140-144	1
145-149	2
150-154	6
155-159	10
160-164	4
165-169	3
170-174	2
175-179	1
180-184	1

2+3+5+5

Please Turn Over

Or,

- (b) Define raw score. Write down the rules for constructing frequency distribution table.  
Calculate the S.D. from the following ungrouped data : 2+4+9

## Scores

18

25

21

19

27

31

22

25

28

20

4. Write short notes on (*any two*) :

 $7\frac{1}{2} \times 2$ 

- (a) Measures of central tendency
- (b) Grouped and ungrouped data
- (c) Histogram
- (d) Percentile

5. Select and write the correct answer (*any ten*) :

1×10

- (a) Research proposal is also called

- (i) Abstract
- (ii) Summary
- (iii) Synopsis
- (iv) Methodology.

- (b) The most unreliable average is

- (i) Median
- (ii) Mean
- (iii) Mode
- (iv) Midpoint of range.

- (c) The questionnaire in which a sequence of questions is followed called

- (i) Structured
- (ii) Unstructured
- (iii) Closed
- (iv) Open.

- (d) The middle value in a distribution refers to

- (i) Mean
- (ii) Median
- (iii) Mode
- (iv) Geometric mean.

- (e) Novelty of a research problem means
- (i) Simplicity
  - (ii) Originality
  - (iii) Availability
  - (iv) None of these.
- (f) Research conducted on the immediately available small sample
- (i) Basic research
  - (ii) Action research
  - (iii) Both (i) and (ii)
  - (iv) None of these.
- (g) The quantitative method of data collection is
- (i) Observation
  - (ii) Interview
  - (iii) Both (i) and (ii)
  - (iv) None of these.
- (h) Which of the following is not an average?
- (i) Mean
  - (ii) Median
  - (iii) Mode
  - (iv) Skewness.
- (i) Root mean square deviation is called
- (i) Mean deviation
  - (ii) Range
  - (iii) Variance
  - (iv) Standard deviation.
- (j)  $3 \text{ Median} - 2 \text{ Mean}$  is used to compute
- (i) Mean
  - (ii) Median
  - (iii) Mode
  - (iv) None of these.
- (k) Simplest measure of dispersion is
- (i) Range
  - (ii) Quartile Deviation
  - (iii) Mean
  - (iv) Standard Deviation.
- (l) "Many-angled figure" means
- (i) Polygon
  - (ii) Histogram
  - (iii) Percentile
  - (iv) Quartile.
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