

2020

RESEARCH AND STATISTICS IN PHYSICAL EDUCATION

Course : 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.**Question nos. 4 and 5 are compulsory. Answer any two from the rest.*

1. (a) What are the characteristics of a Research? Write down the steps involved in Research process. 8+12

Or,

- (b) What do you understand by Statistics? Explain the nature and importance of Statistics. 8+12

2. (a) Why literature review is important in Research? Describe different sources of literature with examples. 8+12

Or,

- (b) What are the differences between a Research Proposal and a Research Report? Discuss the contents of a Research Report in detail. 8+12

3. (a) Following data are the score of 1-min. sit-up test, performed by 30 B.P.Ed students in an entrance test.

18	20	21	27	29	20
19	30	32	19	34	19
24	29	18	37	38	22
30	39	32	44	33	46
54	49	18	51	21	21

- (i) Construct a frequency distribution that has five class intervals.
- (ii) Construct a Cumulative frequency polygon/Ogive graph for the frequency distribution.
- (iii) Show the average number of sit-ups performed by a student in a graph. 8+8+4

Please Turn Over

Or,

(b) Following are the distribution of marks obtained by 50 students in an examination.

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
No. of Students	5	4	17	12	8	4

- (i) Calculate mean to show the average marks obtained by a student.
- (ii) The following is a set of data for a population. Compute the population variance and standard deviation.

X : 7, 5, 11, 8, 3, 6, 2, 1, 9 and 8. 12+8

4. Write note on (*any one*) : 10

- (a) Measures of Central Tendency
- (b) Measures of Variability
- (c) Functions and limitation of statistics
- (d) Bar diagram and Pie chart.

5. Answer the following MCQ by choosing correct alternative and write the answer on your answer script (*any ten*) : 2×10

- (a) Research that gives its results in the form of principles and theories known as
 - (i) Action research
 - (ii) Basic research
 - (iii) Field research
 - (iv) All of these.
- (b) Source of literature for a researcher is
 - (i) Books
 - (ii) Journal
 - (iii) Newspaper
 - (iv) All of these.
- (c) Research Proposal is also called
 - (i) Summery
 - (ii) Abstract
 - (iii) Synopsis
 - (iv) Methodology.
- (d) If the lower and upper limits of a class are 10 and 40 respectively, the mid points of the class is
 - (i) 15.0
 - (ii) 12.5
 - (iii) 25.0
 - (iv) 30.0
- (e) Action-research is
 - (i) An applied research
 - (ii) A research carried out to solve immediate problems
 - (iii) A longitudinal research
 - (iv) All of these.

- (f) The first step of research is
- (i) Selecting a problem
 - (ii) Searching a problem
 - (iii) Finding a problem
 - (iv) Identifying a problem.
- (g) Which of the following is not the measures of Variability?
- (i) Range
 - (ii) Standard Deviation
 - (iii) Mode
 - (iv) Coefficient of Variation.
- (h) Books and records are the primary sources of data in
- (i) Historical research
 - (ii) Participatory research
 - (iii) clinical research
 - (iv) Laboratory research.
- (i) Class intervals of the type 30-39, 40-49, 50-59 represents
- (i) Inclusive type
 - (ii) Exclusive type
 - (iii) Open-end type
 - (iv) None.
- (j) Another name for the Ogive
- (i) Histogram
 - (ii) Frequency polygon
 - (iii) Cumulative frequency graph
 - (iv) Pareto chart.
- (k) What is the value of the mode when all values in the data set are different?
- (i) 0
 - (ii) 1
 - (iii) There is no mode
 - (iv) It cannot be determined unless the data values are given.
- (l) What is the median value of the numbers 4, 8, 7, 2, 2 ?
- (i) 7.0
 - (ii) 4.6
 - (iii) 4.0
 - (iv) 2.0
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