

2022

RESEARCH AND STATISTICS IN PHYSICAL EDUCATION AND SPORTS

Course Code: CC- 403

Full Marks : 70

*The figures in the margin indicate full marks.**Candidates are required to give their answer in their own words as far as practicable.*Answer *all* questions.

1. Define research. Write down the importance of research in physical education. Classify research on the basis of their purpose with brief explanation. 3+3+9

Or,

What is research problem? Write down the sources of research problem. What are the criteria for selecting a good research problem? 4+5+6

2. Briefly discuss the significance of a research proposal. Explain different methods of data collection for research. 7+8

Or,

Explain the need for surveying related literature. Discuss the steps of preparing a research report. 7+8

3. (a) The body weights, in pounds, of a group of men are tabulated below. Calculate the median weight.

Class Intervals (lbs)	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

- (b) Following data are the no. of sit-ups scored by some students. Calculate average no of sit-ups performed by the students (using mean value):

No. of Sit-Ups	20	21	22	23	24	25
Number of Students	4	2	7	1	3	1

7.5+7.5

Please Turn Over

Or,

Marks obtained by 60 B.P.Ed students in an examination are given below:

55, 54, 65, 62, 58, 75, 72, 71, 45, 48, 52, 49, 54, 56, 57, 58, 56, 59, 63, 70,
65, 68, 69, 67, 64, 63, 65, 67, 66, 64, 54, 55, 68, 65, 64, 49, 49, 48, 54, 74,
68, 62, 48, 53, 55, 58, 63, 72, 71, 65, 66, 63, 58, 54, 56, 68, 63, 61, 58, 48

- (a) Construct a frequency distribution table of the marks of B.P.Ed students.
(b) Represent the frequency table by a frequency polygon.

9+6

7½×2

4. Answer the following questions (*any two*) :

- (a) Discuss the importance of statistics in the field of physical education and sports.
(b) What is variability? How can variability be measured?
(c) In an examination, 20 students secure marks as follows:

45, 49, 47, 46, 45, 46, 48, 53, 56, 58, 59, 64, 68, 72, 72, 78, 78, 82, 85, 86

Find the percentile rank of a candidate obtaining score 72.

- (d) Compute standard deviation of the following scores:

Class Interval	Frequency
45-49	7
50-54	8
55-59	10
60-64	6
65-69	5
70-74	4

5. Choose the correct option and write it on your answer script (*any ten*) :

1×10

- (a) Mean, median and mode are:

(i) Measures of deviation

(ii) Measures of variability

(iii) Measures of Central tendency

(iv) None of these

- (b) The class interval of the continuous grouped data with following classes is:

10-19	20-29	30-39	40-49	50-59
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(i) 9

(ii) 10

(iii) 14.5

(iv) 4.5

- (c) The data of research is generally :

(i) Qualitative only

(ii) Quantitative only

(iii) Descriptive only

(iv) All of the above.

- (d) 'Many angled' means :
- (i) Polygon (ii) Histogram
(iii) Percentile (iv) Quartile.
- (e) Which of the following can be considered as primary source of literature in research?
- (i) Book (ii) Journals
(iii) Newspaper (iv) All of the above.
- (f) Research used for studying practical problems and finding a solution to it is :
- (i) Basic Research (ii) Action Research
(iii) Applied Research (iv) Descriptive Research
- (g) Research problem should not be based on :
- (i) Subject interest of the researcher (ii) Financial interest of the researcher
(iii) Expertise of the researcher (iv) All of the above.
- (h) A specific, clear, and testable proposition or predictive statement about the possible outcome of a scientific research study based on a particular property of a population is called :
- (i) a research problem (ii) a research hypothesis
(iii) a research conclusion (iv) a research synopsis
- (i) The computed mode of the following distribution is :
- 2, 7, 10, 15, 15, 10, 17, 17, 8, 10, 2, 7,
- (i) 15 (ii) 7
(iii) 10 (iv) 8
- (j) Ogives for 'more than type' and 'less than type' distribution intersect at :
- (i) Mean (ii) Median
(iii) Mode (iv) Origin.
- (k) Which of the following represents fiftieth percentile?
- (i) First Quartile (ii) Median
(iii) Sixth decile (iv) Third quartile.
- (l) If the minimum value in a set is 9 and its range is 57, the maximum value of the set is :
- (i) 33 (ii) 66
(iii) 48 (iv) 24
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