(6 Pages) **Reg. No. :** .....

Code No. : 10642 E **Sub. Code : CMPE 63**

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2024.

Sixth Semester

Physical Education – Core

ELEMENTARY STATISTICS IN PHYSICAL EDUCATION

(For those who joined in July 2021–2022)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Numbers bases on samples are referred as
   (a) Statistics
   (b) Parameters
   (c) Central Tendency
   (d) Variability

2. A group of participants selected for treatment from a larger population is
   (a) Population (b) Sample
   (c) Inference (d) Range

3. Find out the mean for the following data :
   15, 17, 16, 14, 19, 18, 12, 13
   (a) 12 (b) 12.5
   (c) 15.5 (d) 16

4. The scores that occurred most in the distribution
   (a) Mean (b) Median
   (c) Mode (d) Intensity

5. _____ is the square root of the average of the squared deviations from the mean
   (a) Variance (b) Range
   (c) Standard deviation (d) Sum of squares

6. The _____ is the difference between the lowest and highest values
   (a) Mean
   (b) Median
   (c) Range
   (d) Standard deviation

7. To collect the height and weight of the students in class is

(a) Nominal scale

(b) Ordinal scale

(c) Interval scale

(d) Ratio scale

8. What term is used to describe an extreme score in a group of scores?

(a) Discrepant

(b) Extremist

(c) Outlier

(d) Non–conforming

9. From the large group which a sample is taken is called

(a) Population (b) Sample

(c) Inference (d) Range

10. A positively–skewed distribution is more likely to occur whenever we have

(a) A large sample size

(b) Floor effects

(c) Ceiling effects

(d) A wide variety at participants

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the quantitative data with example.

Or

(b) Explain the qualitative data with example

12. (a) List down the advantages of measures of central tendency.

Or

(b) Find out mean, median and mode for the following data. 35, 42, 63, 60, 46, 71, 63, 65, 59, 67, 66.

13. (a) Calculate the standard deviation for following data

24, 21, 19, 18, 17, 16, 18, 19, 14.

Or

(b) Explain the range and its advantages.

14. (a) List down the measures of relative position.

Or

(b) Explain about the standard scales.

15. (a) Explain the principles of normal curve.

Or

(b) Write about the population and sample.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the need and importance of statistics in physical education.

Or

(b) Classify the types of statistics.

17. (a) Find out the median from the following data

SI	80-84	75-79	70-74	65-69	60-64	55-59
F	2	2	2	7	9	15
SI	50-54	45-49	40-44	35-39	30-34	
F	6	5	4	2	2	

Or

(b) Explain the term mean, median and mode with suitable example.

18. (a) Describe about the quartile deviation.

Or

(b) Find out the standard deviation for the following data

Step Interval	70-74	65-69	60-64	55-59
Frequency	2	4	7	9
Step Interval	50-54	45-49	40-44	35-39
Frequency	10	12	13	11
Step Interval	30-34	25-29	20-24	
Frequency	7	5	3	

19. (a) Explain the merits and demerits of quartile deviation.

Or

(b) Explain about the T scale and Hull scale.

20. (a) Explain the positive and negative skewness.

Or

(b) Explain the concept and measures and Kurtosis.

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