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( CBCS )

( 5th Semester )

**EDUCATION**

SIXTH PAPER

**( Statistics in Education )**

*Full Marks : 75*

*Time : 3 hours*

**( PART : A—OBJECTIVE )**

( *Marks : 25* )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( *Marks : 10* )

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. The goal of \_\_\_\_\_ is to focus on summarizing and explaining a specific set of data.

(a) inferential statistics ( ) (b) descriptive statistics ( )

(c) behavioural statistics ( ) (d) objective statistics ( )

2. Under statistics, even qualitative data are also converted into \_\_\_\_\_ data for analyzing.

(a) tabular ( ) (b) quantitative ( )

(c) theoretical ( ) (d) specific ( )

3. Central tendency is the \_\_\_\_\_ which represents all of the scores made by the group.

- (a) average ( )                      (b) general ( )  
(c) specific ( )                      (d) modular ( )

4. The crude mode is an \_\_\_\_\_ measure of central tendency.

- (a) stable ( )  
(b) unstable ( )  
(c) specific ( )  
(d) None of the above ( )

5. Measures of \_\_\_\_\_ are methods where scatter scores around their central tendency is determined.

- (a) central tendency ( )  
(b) normal distribution ( )  
(c) variability ( )  
(d) frequency distribution ( )

6. The simplest measure of dispersion is

- (a) range ( )                      (b) average deviation ( )  
(c) piegram ( )                      (d) distribution curve ( )

7. In a normal distribution, mean, median and mode have the same

- (a) proportion ( )                      (b) values ( )  
(c) weightage ( )                      (d) difference ( )

8. Frequency distribution having the same kurtosis as the normal distribution is

- (a) positive kurtosis ( ) (b) platykurtic ( )  
(c) leptokurtic ( ) (d) mesokurtic ( )

9. Coefficient of correlation ranges from

- (a) -1 through 0 to 1 ( ) (b) -1 through 0 to 3 ( )  
(c) -3 through 0 to 3 ( ) (d) -3 through 0 to 1 ( )

10. The coefficient of perfect negative correlation is

- (a) 0 ( ) (b) 2 ( )  
(c) -1 ( ) (d) 1 ( )

SECTION—B

( Marks : 15 )

Write on the following :

3×5=15

1. Meaning of statistics

**OR**

Concept of frequency distribution

2. Grouped data

**OR**

Uses of mean

3. Concept of range

**OR**

Uses of standard deviation

4. Meaning of kurtosis

**OR**

Concept of normal distribution

5. Concept of correlation

**OR**

Types of correlation

**( PART : B—DESCRIPTIVE )**

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

1. (a) What is descriptive statistics? Mention the limitations of statistics. 2+2=4
- (b) Tabulate the following scores into a frequency distribution with size of class interval of 5 : 6

32	78	27	65	88	83	63	52
86	70	42	66	56	44	63	59
73	52	43	69	59	46	71	65
42	55	39	70	57	49	78	70
34	61	62	77	81	72	79	69

**OR**

- (c) Explain histogram and piegram. 2+2=4
- (d) Draw frequency polygon from the following data : 6

Scores	$f$
65-69	2
60-64	3
55-59	4
50-54	7
45-49	9
40-44	10
35-39	8
30-34	4
25-29	2
20-24	1
	<hr style="width: 50px; margin: 0 auto;"/>
	$N$ 50

2. (a) Explain the uses of median. 4  
 (b) Calculate the median from the following data : 6

Scores	$f$
90-94	2
85-89	2
80-84	2
75-79	4
70-74	5
65-69	9
60-64	6
55-59	3
50-54	4
45-49	2
40-44	1
	$N$ 40

**OR**

- (c) Explain the measures of central tendency. 4  
 (d) Calculate the mean from the data given in Question No. 2(b). 6
3. (a) What are the uses of quartile deviation? 3  
 (b) Calculate the standard deviation from the following distribution of scores : 7

Scores	$f$
195-199	1
190-194	2
185-189	4
180-184	5
175-179	8
170-174	10
165-169	6
160-164	4
155-159	4
150-154	2
145-149	3
140-144	1
	$N$ 50

**OR**

(c) Explain the concept of measure of variability. 3

(d) Calculate quartile deviation from the distribution of scores given in Question No. 3(b). 7

4. What is normal distribution? Discuss the characteristics of normal distribution curve with suitable diagram. 3+7=10

**OR**

(a) Explain the concept of skewness and kurtosis with suitable diagram. 3+3=6

(b) Mention the applications of normal distribution curve in the field of education. 4

5. (a) What is perfect correlation? 3

(b) Calculate correlation by rank difference method from the following data and interpret your result : 5+2=7

X	Y
15	11
20	16
15	12
21	18
22	15
14	11
13	14
12	16
17	15
11	12

**OR**

- (c) What are the uses of correlation? 3
- (d) Calculate correlation using product moment method from the data given in Question No. **5(b)** and interpret your results. 5+2=7

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