

2018

(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 :

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

3×5=15

(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/> 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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