

2014

EDUCATION

(Major)

Paper : 5.5

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Answer the following : 1×7=7

- (a) Define mean.
- (b) What is data?
- (c) Define arithmetic mean (AM).
- (d) What is discrete data?
- (e) Define percentile rank.
- (f) What is positive correlation?
- (g) Define quartile deviation.

2. Answer the following as directed : 2×4=8

- (a) Classify the variables (i) height, (ii) intelligence score, (iii) weight, and (iv) scores into continuous and discrete series of an achievement test.
- (b) Point out the range (lower limit to upper limit) of the following scores belonging to a continuous series :

14, 22, 46, 72

(c) The mean can be determined by the formula, $M = \frac{\sum fx}{N}$. (Fill in the blank)

(d) Find the average deviation of the scores 15, 10, 6, 8, 11 of a series.

3. Answer any *three* of the following : $5 \times 3 = 15$

(a) Define median. When do we use median?

(b) Discuss different types of non-normal distribution.

(c) Discuss the process of computation of standard deviation by taking an example from an ungrouped data.

(d) What is linear correlation? Discuss its types.

(e) Given, mean = 49.5 and SD = 10. Change the score of 80 into Z score.

4. Answer any *three* of the following : $10 \times 3 = 30$

(a) Compute the median from the following frequency distribution :

Scores	f
70-71	2
68-69	2
66-67	3
64-65	4
62-63	6
60-61	7
58-59	5
56-57	1
54-55	2
52-53	3
50-51	1
	<u>N = 36</u>

(b) Compute the standard deviation from the following distribution :

Scores	f
125-129	1
120-124	5
115-119	7
110-114	6
105-109	9
100-104	9
95-99	6
90-94	4
85-89	1
80-84	1
	<u>N = 49</u>

(c) Find rank correlation coefficient from the following data and interpret the results :

Individuals	:	A	B	C	D	E	F	G	H
Marks in Hindi	:	30	40	50	20	10	45	22	18
Marks in English	:	55	75	60	12	11	38	25	15

(d) Given a normal distribution with a mean of 50 and SD of 15.

(i) What percent of the cases will be between 40 and 47?

(ii) What percent of the groups is expected to have scores greater than 68?

- (e) Compute the values of the following from the data given below :
- (i) P_{30} and P_{70}
 - (ii) Percentile rank of the scores 14 and 26

Scores	f
37-39	2
34-36	10
31-33	15
28-30	19
25-27	16
22-24	8
19-21	9
16-18	7
13-15	3
10-12	1
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	$N = 90$

- (f) Plot frequency polygon from the following data :

Scores	f
75-79	1
70-74	3
65-69	5
60-64	8
55-59	11
50-54	18
45-49	10
40-44	8
35-39	6
30-34	5
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	$N = 75$

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