2020

(5th Semester)

EDUCATION

(Honours)

Paper No. : EDN–502

(Statistics in Education)

Full Marks : 70
Pass Marks : 45%

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. *(a)* Explain the nature and scope of educational statistics. 7+7=14

Or

(b) Define statistics. Discuss the use of statistics in education. 4+10=14

2. *(a)* What do you mean by the term 'measures of central tendency'? Calculate the mean, median and mode for the following frequency distribution : 2+4+4+4=14

Scores	*Frequency*
100–104	1
95–99	2
90–94	1
85–89	6
80–84	7
75–79	3
70–74	2
65–69	1
60–64	2
55–59	4
50–54	0
45–49	1
	$N = 30$

Or

(b) What is standard deviation? Compute standard deviation (SD) from the following grouped data : 2+12=14

Class interval	*Frequency*
60–64	2
55–59	1
50–54	3
45–49	6
40–44	8
35–39	5
30–34	2
25–29	1
20–24	3
15–19	7
10–14	2
	$N = 40$

3. *(a)* Distinguish between positive skewness and negative skewness. Explain the uses of normal probability curve in the interpretation of test scores. 4+10=14

Or

(b) State the factors causing divergence in a normal curve. Explain the types of kurtosis along with diagram. 5+9=14

4. *(a)* What is zero correlation? Compute the coefficient of correlation by rank difference method between the marks secured in two tests by 10 students and interpret the results : 2+12=14

Students	*Test—X*	*Test—Y*
A	10	16
B	15	16
C	11	24
D	14	18
E	16	22
F	20	24
G	10	14
H	8	10
I	7	12
J	9	14

Or

(b) State two uses of correlation in education. Find the coefficient of correlation between the following two sets of scores using the product moment method and interpret the result : 2+12=14

Subject	:	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*
Test—I	:	15	18	22	17	19	20	16	21
Test—II	:	40	42	50	45	43	46	41	41

5. *(a)* What is data? Distinguish between grouped and ungrouped data with suitable examples. 4+5+5=14

Or

(b) Plot a histogram and a frequency polygon for the given data : 7+7=14

Class interval	*Frequency*
65–69	1
60–64	3
55–59	4
50–54	7
45–49	9
40–44	11
35–39	8
30–34	4
25–29	2
20–24	1
	$N = 50$

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