2022

(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)* What is educational statistics? Discuss the importance of statistics in education. 4+10=14

Or

(b) Enumerate the sources of educational data and the use of statistics in interpretation of educational data. 9+5=14

2. *(a)* Calculate mean, median and mode for the following frequency distribution : 5+5+4=14

Scores	*Frequency*
40–44	2
35–39	3
30–34	4
25–29	5
20–24	10
15–19	15
10–14	6
5–9	5
	$N = 50$

Or

(b) Compute standard deviation (SD) from the following grouped data by short method : 14

Scores	*Frequency*
95–100	2
90–95	0
85–90	5
80–85	9
75–80	11
70–75	10
65–70	12
60–65	7
55–60	3
50–55	1
	$N = 60$

3. *(a)* Explain the concept of normal probability curve. Discuss the properties of normal probability curve. 4+10=14

Or

(b) What is divergence from normality? Explain skewness and Kurtosis and illustrate with diagrams. 3+11=14

4. *(a)* Explain the concept of correlation. Calculate the coefficient of correlation by rank difference method between the marks secured in two tests by 10 students and interpret the results : 2+10+2=14

Students	*Maths*	*Physics*
A	92	61
B	87	55
C	64	43
D	55	48
E	76	57
F	81	45
G	50	36
H	69	47
I	81	51
J	77	48

Or

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

Subjects	*Test-X*	*Test-Y*
A	67	85
B	65	83
C	50	72
D	58	77
E	62	84
F	66	87
G	53	70
H	59	79
I	62	82
J	58	81

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

(Continued)

Or

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

Class Interval	*Frequency*
80–84	1
75–79	3
70–74	4
65–69	4
60–64	7
55–59	8
50–54	10
45–49	7
40–44	5
35–39	2
30–34	3
25–29	1

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