COURSE CODE: 10B11MA311　　　　　　　　　　　MAX. MARKS: 15

COURSE NAME: PROBABILITY AND STATISTICS

COURSE CREDITS: 04　　　　　　　　　　　　　　MAX. TIME: 1 HR

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Scientific calculator is allowed.

1. Define different measurement scales used in Statistics with suitable examples, in short. **[3] [CO1]**

2. Represent the following frequency distribution by a frequency curve. Show also the histogram and frequency polygon on the same graph.

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Frequency	2	6	10	17	30	10	14	7	4	1

[3] [CO2]

3. Calculate the rank correlation coefficient from the following data, showing ranks of students in two subjects:

Mathematics	3	8	9	2	7	10	4	6	1	5
Physics	5	9	10	1	8	7	3	4	2	6

[3] [CO4]

4. Prove the following;

(a) Coefficient of correlation is the geometric mean of the coefficients of regression.

(b) Arithmetic mean of the coefficients of regression is greater than the coefficient of correlation.

[1.5+1.5][CO4]

5. Obtain the two regression lines and the coefficient of correlation from the following data:

X	5	8	7	6	4
Y	3	4	5	2	1

[3] [CO2]

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