

B.Sc. (NEP) Sem.-3 Examination

MDC-234

Statistics

Time : 1-00 Hour]

November-2025

[Max. Marks : 25

- Q.1(A) Prove that Karl-Pearson's coefficient of correlation is not affected by change of scale and origin. 05
- (B) Write note on rank correlation co-efficient. 05
- OR**
- (A) What is correlation? Obtain regression equation Y on X. 05
- (B) Write note on Scatter diagram including its importance. 05
- Q.2 (A) What is Regression analysis? Explain the two-regression line. 05
- (B) Describe fitting of linear equation to the bivariate data. 05
- OR**
- (A) Explain the properties of regression. 05
- (B) Explain the fitting of Second-degree curve. 05
- Q.3 Answer any **five out of six** from following: 05
1. If $b_{yx} = -0.4$, $b_{xy} = -0.9$, then find r_{xy} .
 2. Bivariate correlation.
 3. State the intersection point of the two regression lines.
 4. If $r = 0.72$, $S_x = 10$, and $S_y = 12$ find b_{yx} .
 5. Give the example of bivariate data.
 6. State the principal of least square
