

1/31

1305E610

Candidate's Seat No: _____

B.Sc. (NEP) Sem.2 Examination

MDC-124

Statistics

Time : 1.00 Hour]

May-2025

[Max. Marks : 25

- Q.1(A) ~~Short note: Bayes theorem.~~ *state and Prove Bayes' theorem* (5)
- Q.1(B) State and prove Bonferroni's inequality (5)
- OR
- Q.1(A) Define classical, relative and axiomatic probability. (5)
- Q.1 (B) ~~State and prove Chebyshev's inequality.~~ *Discuss chebyshev's theorem and explain its use.* (5)
- Q-2(A) Define the mathematical expectation and prove any two properties. (5)
- Q-2(B) Discuss about product raw moments and product central moments. [(5)
- OR
- Q-2(A) Define distribution function and also state its properties. (5)
- Q-2(B) Write a note on conditional expectation. (5)

Q.3 Attempt any five out of six. (05)

- 1 Give any two examples of random experiment.
 - 2 Give the properties of PDF.
 - 3 Define mutually exhaustive event by diagram.
 - 4 Define the PMF
- 5 Write the formula for Expected value of Bivariate function for continuous data.
- 6 Define sample space.
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