

LPUNEST – Ph.D. Mathematics
(Sample Questions)

- QUESTION 1** Let A be a 5×5 matrix with real entries such that the sum of entries of each row is one. Then the sum of all the entries in A^3 is
- Option A 3
Option B 5
Option C 15
Option D 25
- QUESTION 2** If dual of an LPP has an unbounded solution, the primal has
- Option A No feasible solution
Option B Unbounded Solution
Option C Feasible solution
Option D None of these
- QUESTION 3** Centre of group Z_n is
- Option A $\{e\}$
Option B $\{n\}$
Option C $\{0\}$
Option D Z_n
- QUESTION 4** In a 2×2 contingency table if we multiply a particular column by an integer k (>1), then the odds ratio
- Option A will increase
Option B will decrease
Option C remains same
Option D will increase if $k > 2$ and will decrease if $k < 2$
- QUESTION 5** How many normal subgroups does a non-abelian group G of order 21 have other than the identity subgroup $\{e\}$ and G ?
- Option A 0
Option B 1
Option C 3
Option D 7

