

SNS COLLEGE OF TECHNOLOGY



(An Autonomous Institution)
Coimbatore-641035.

UNIT 2- Orthogonal Transformation of a Real Sym Matrix

Nature of Quadratic Form

Mortune of the quadratic form 1-
Rank: The number of non-zero eigen values.
2, Index: The number of positive square terms.
3, signature :- The difference between positive
and negative square terms.
4) Nature: The nature of the quadratic
forms. one 5 cases.



SNS COLLEGE OF TECHNOLOGY



(An Autonomous Institution)
Coimbatore-641035.

UNIT 2- Orthogonal Transformation of a Real Symmetric Matrix

Nature of Quadratic Form

7	CASES itoups sikinstoppods sit 2 19018
لإ	positive definete: All, the eigen values are
L	positive. es nature es positive definite.
2	Negative definite: All the eigen values are
	negative.
3)	positive semidefinite: All the eigen values are
	positive and atleast one 95 zero.
	Negative semidefinite: All the eigen values are
4)	Negative semiderina de la
	negative and atleast one 9s 2000.
5,	1111 - 011
	Indefinite: "A" has both positive and negative. Pigen values.