

Graph Theory

Module 2

Section 2 : Vertex/Edge Cut

August 17, 2023

Terminology

- ▶ Separating Set
- ▶ Vertex Cut
- ▶ Cut Vertex

Characterisations

- ▶ 2-edge Cut - Both vertices come together in cycles.
- ▶ Cut Vertex : $\exists u, w$ such that v belongs to every $u - w$ path.
- ▶ Cut Edge : e does not belong to any cycle.
- ▶ Cubic Graph : \exists Cut Edge $\iff \exists$ Cut Vertex.

Results

- ▶ Every graph has at least two non-cut vertices.

Thank You