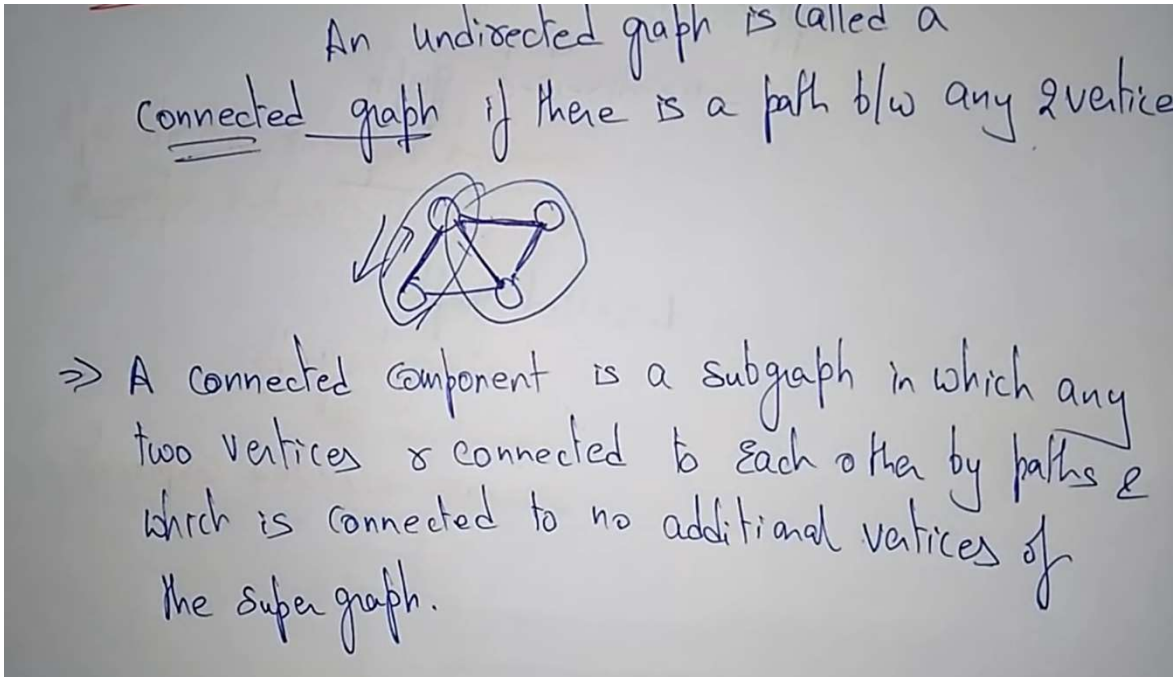
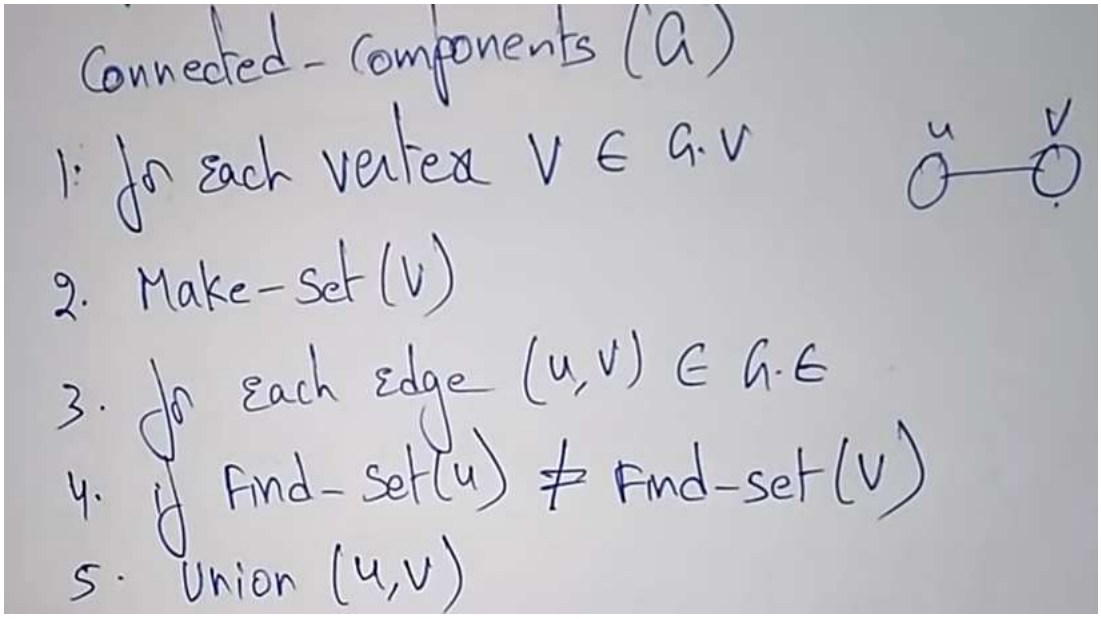
COURSE HANDOUT

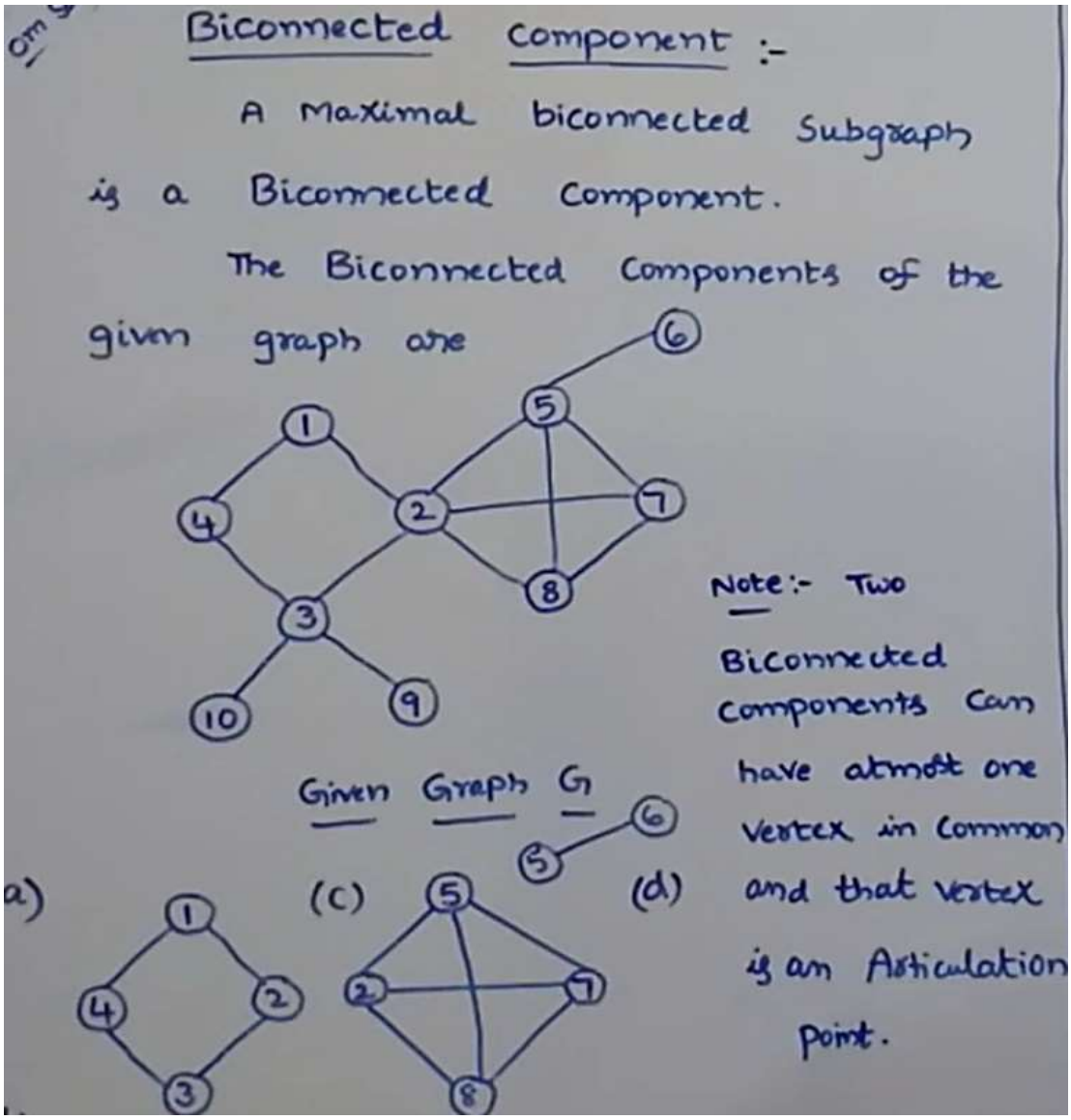
Course Code	ACSC13
Course Name	Design and Analysis of Algorithms
Class / Semester	IV SEM
Section	A-SECTION
Name of the Department	CSE-CYBER SECURITY
Employee ID	IARE11023
Employee Name	Dr K RAJENDRA PRASAD
Topic Covered	connected components, biconnected components
Course Outcome/s	Find the connected components of the graphs.
Handout Number	25
Date	27 March, 2023

Content about topic covered: Connected components, Biconnected components



Algorithm for connected-components



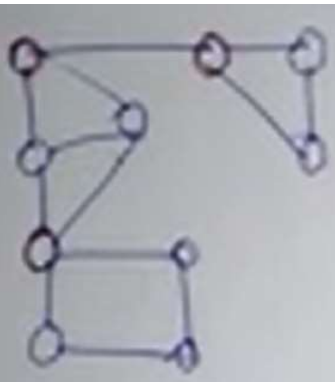


⇒ A graph is biconnected if it contains no 'articulation' point.

removal of any vertex results in disconnection

⇓

is any vertex of a graph whose removal results in disconnected graph.



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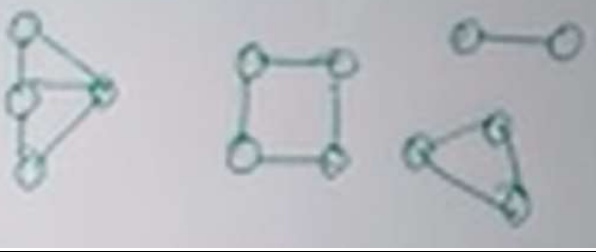
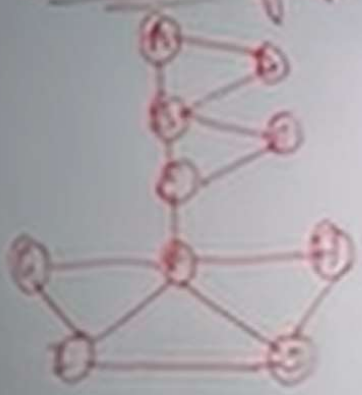


Ex:- Undirected graph



biconnected components