

St. Mira's College for Girls, Pune
(Autonomous-Affiliated to Savitribai Phule Pune University)
Class: FYBSC Computer Science

Subject: Graph Theory

Subject Code: BS21503

Semester: II

Year: 2017-18

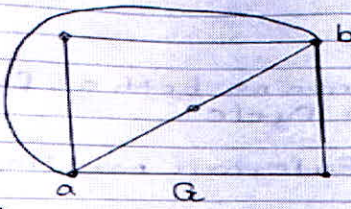
1. Unit No.: 2
2. Employability/Entrepreneurship/Skill development
Skill Development : Problem Solving, computing skills
3. Test on Connected graphs – Eulerian and Hamiltonian Graphs - decision making

10/10 GMP

Name: Chaitali Jedhe
Roll no: 5415
Date: 26/2/18
Sub: Discrete Mathematics assignment.

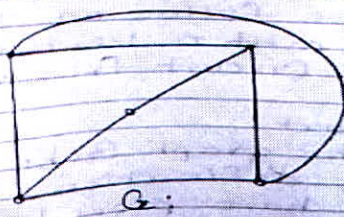
Q.1] Give an example of each following graph with proper justification: a graph

1] Eulerian but not Hamiltonian.



Here in G every vertex is of even degree. It is an Eulerian graph and hence contains an Eulerian trail. But G is not Hamiltonian, let $S = \{a, b\} \Rightarrow |S| = 2$ and $k(G-S) = 3 \neq 2 = |S|$. Necessary condition for Hamiltonian is not satisfied.

2] Hamiltonian but not Eulerian.



Gitanjali Phadnis
Subject Teacher

JK
Principal Incharge
St. Mira's College for Girls