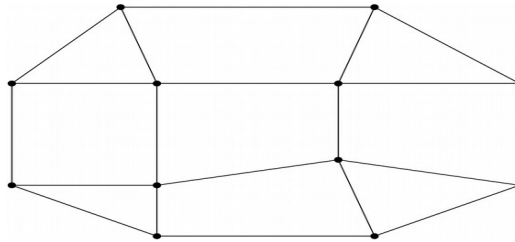


Date: 08/12/2020
Slot - 3
CS 701 – Lab Test

Answer any one.
Credit in decreasing order.
1>2>3>4.

Q1. Assume that you have ready DCEL structure (edge, face, vertex tables) for planar subdivisions (use the following figure). Write functions for the following:

1. Given a vertex v , which vertices are the neighbors of v ?
2. Given a face f , which other faces are having a common edge with f ?



Q2. Given a rectangular window ABCD and a line PQ: report which part of the line is inside ABCD.

Q3. Implement a randomized algorithm for finding the minimum area circle enclosing a given point set P.

Q4. Write a program for randomized median finding (from a list of integers) with some relaxation d . Here, d is user input. Now, extend this median finding solution to write a Quick-sort procedure.