

MARWARI COLLEGE RANCHI

Subject : Discrete Math

Full Marks : 30

Paper : IV

Time : 1Hr.

MCA SEMESTER 1

Mid semester examination 2017

Group - A

Answer any **FOUR** questions:

4 x 4 = 16

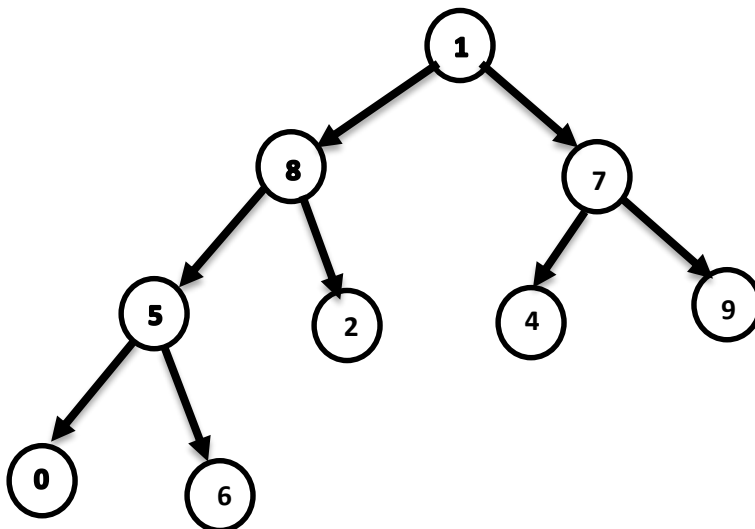
1. Define sub tree.
2. What do you mean by Hamiltonian circuit?
3. Define Graph.
4. Explain the DFS mechanism.
5. Define the following:
 - a. Sibling
 - b. Isolated vertex

Group - B

Answer any **TWO** questions.

7 x 2 = 14

1. Discuss the shortest path mechanism with a proper example.
2. Consider the following tree and discuss the various tree traversal techniques:



3. Find out Euler path, Hamiltonian path, Hamiltonian circuit in the following graph:

