



Sandip Foundation's
SANDIP INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

Department of Computer Engineering

Assignment No. 4: Graph Theory

Answer the following questions

Que 1: With reference to graph theory define following terms:

Regular graph, Acyclic graph, Bipartite Graph, Multi graph

Que 2: Show that if G is connected planer graph with N vertices, E edges and R regions the $N-E+R = 2$

Que 3: With reference to graph theory define the terms: Hamiltonian paths and circuits, Eulerian paths and circuit, Planer graph, Isomorphic graph, self complementary graph

Que 4: List and explain necessary conditions for Eulerian path with suitable examples.

Que 5: Explain the process to find shortest path using Dijkstras algorithm.

Que 6: What do you understand by factors of a graph?

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