**DAA-Lab**

**LAB - 10**

LQ1. Aim of the experiment : To implement Kruskal's algorithm

Input : Refer to Graph 2,

**INPUT:**

graph = { {0, 1, 1, 1, 1, 0, 0, 0, 0},

{1, 0, 0, 0, 0, 1, 0, 0, 0},

{1, 0, 0, 0, 0, 0, 0, 0, 0},

{1, 0, 0, 0, 0, 0, 1, 0, 0},

{1, 0, 0, 0, 0, 0, 0, 0, 0},

{0, 1, 0, 0, 0, 0, 0, 1, 0},

{0, 0, 0, 1, 0, 0, 0, 0, 1},

{0, 0, 0, 0, 0, 1, 0, 0, 0},

{0, 0, 0, 0, 0, 0, 1, 0, 0}};

**OUTPUT:**

Expected Output : Kruskal, minimum spanning-tree edges : 6-7, 2-8, 5-6, 0-1, 2-5, 2-3, 0-7, 3-4,

LQ2. Aim of the experiment : To implement Prim's algorithm.

Input : Refer to Graph 2, Start vertex : 0

**INPUT:**

graph = { {0, 1, 1, 1, 1, 0, 0, 0, 0},

{1, 0, 0, 0, 0, 1, 0, 0, 0},

{1, 0, 0, 0, 0, 0, 0, 0, 0},

{1, 0, 0, 0, 0, 0, 1, 0, 0},

{1, 0, 0, 0, 0, 0, 0, 0, 0},

{0, 1, 0, 0, 0, 0, 0, 1, 0},

{0, 0, 0, 1, 0, 0, 0, 0, 1},

{0, 0, 0, 0, 0, 1, 0, 0, 0},

{0, 0, 0, 0, 0, 0, 1, 0, 0}};

**OUTPUT:**

Prim, minimum spanning-tree edges: 0-1, 0-2, 0-3, 0-4, 0-5, 0-6, 0-7, 0-8