# Discrete Mathematics: Graphs Theory

## Types of Graphs

www.Stats-Lab.com

Twitter: StatsLabDublin

### Types of Graph

- Bipartite Graphs
- Path Graphs
- Cycle Graphs
- Null Graphs

#### **Bipartite Graphs**

A bipartite graph is a graph whose vertex-set can be split into two sets in such a way that each edge of the graph joins a vertex in first set to a vertex in second set.

### **Path Graphs**

- ► A path graph is a graph consisting of a single path.
- ▶ The path graph with n vertices is denoted by  $P_n$ .

### Cycle Graphs

- A cycle graph is a graph consisting of a single cycle.
- ► The cycle graph with n vertices is denoted by  $C_n$ .

#### **Null Graphs**

- A null graphs is a graph containing no edges.
- ▶ The null graph with n vertices is denoted by  $N_n$ .

#### **END**