**BASKENT UNIVERSITY 2016-2017 SPRING**

**DEPARTMENT OF COMPUTER ENGINEERING**

**BIL367 ALGORITHMS**

**HOMEWORK-4**

1. Implement a graph data structure using adjacency matrix in C.
2. Implement a graph data structure using adjacency list in C.
3. Implement BFS and DFS algorithms on the graph structures in (1) and (2). Show that the algorithms work using a scenario you will design.
4. Implement Kruskal and Prim algorithms on the graph structures in (1) and (2). Show that the algorithms work using a scenario you will design.
5. Implement Dijkstra and Belman-Ford algorithms on the graph structures in (1) and (2). Show that the algorithms work using a scenario you will design.

***Submission:***

**(1, 2, 3): December 21**

**(4): December 25**

**(5): December 28**

**Submit a report including your codes, scenairo and example outputs.**

***All codes should run in Linux environment.***