Bangladesh Army University of Engineering & Technology (BAUET)
Department of Computer Science and Engineering (CSE)
Class Test-02(Summer-2024)
2nd Year 2nd Semester

Course Code: CSE-2213; Course Title: Data Structures and Algorithms-II

Time: 30 min   **Full Marks: 15**

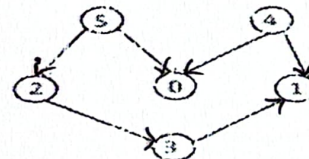| SL		Marks
01.	Consider the following graph. Answer the following questions using **Depth-First Search (DFS)** and **Breadth-First Search (BFS)** starting from node P.	4

```
P -- Q -- R
|    |    |
S -- T -- U
```

    i) Write down the traversal sequence using DFS.

    ii) Write down the traversal sequence using BFS.

    iii) Explain a situation where BFS would be more suitable than DFS, and vice versa

02. Define Topological sort. Demonstrate the applications of topological sort. Apply topological sort to the following graph. **5**

03. Using Dijkstra algorithm from the following graph find the shortest path between A to F. **6**