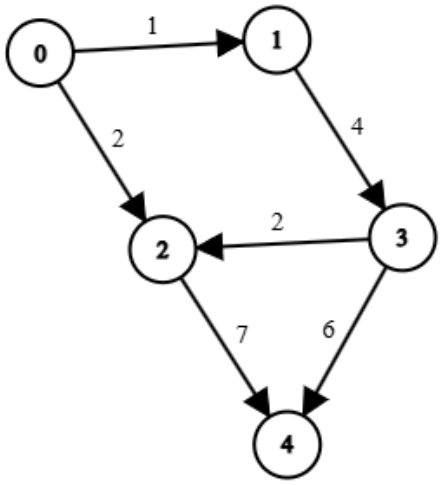
CSE220: Data Structures (Lab)
Fall 2024
Lab Quiz - 07
Duration: 30 Minutes

B

Name:	ID:	Section:

Question 1 [15 Points]



Sample Input	5, graph	Number of Vertices, The Graph
Sample Output	1,	Answer Vertex Index. This Vertex 1 has the **lowest Outgoing edges,** and for the **same reason, Vertex 2** can also be the **answer.**
	[4]	Array of Outgoing edges. Here, **outgoing edge 4<5** which is why the Array has **4** weight. As **vertex 2 can also be the answer** the resulting array for that case would be **[0]** because **7!<5** so the weight cannot be added to the array.

For this **directed**, **edge-weighted** graph implemented using an **adjacency list**, find the vertex with the least amount of **outgoing edges**. The vertex must have **at least 1** outgoing edge; otherwise, **return -1** (for Java an Empty array). After finding the vertex, **return** an array of all the **outgoing edges** from that vertex that weigh **less than 5**.

[Assume **Node** and **Graph** classes have been **implemented** but, you **cannot** use **Adjacency Matrix**]