FISAC-4 Data Structures and Algorithms Date of submission: 22/4/2024
Note: <u>For late submission mark will be deducted</u>

Imagine a scenario where you are an urban planner tasked with optimizing the construction of roads to connect several neighbourhoods in a growing city. Each neighbourhood represents a vertex in a graph, and the roads between them have different associated costs.
Let's consider a city with 7 neighborhoods (A, B, C, D, E, F, G) and their associated road construction costs:

Source	Destination	Costs($)
A	B	4
A	C	7
A	E	3
A	F	6
B	C	8
B	D	9
C	D	10
C	E	5
D	E	6
D	F	11
E	F	12
E	G	5
F	G	10

Using Dijkstra's and Bellman Ford algorithm, how would you determine the shortest path for a delivery truck to reach its destination from the company's warehouse located at A, considering the city's road network as a weighted graph?

2.5*2=5marks