

# DM Quiz 4 (SE COMP-I (2020-21))

\* Required

\* This form will record your name, please fill your name.

1

Roll Number \*

2

Name \*

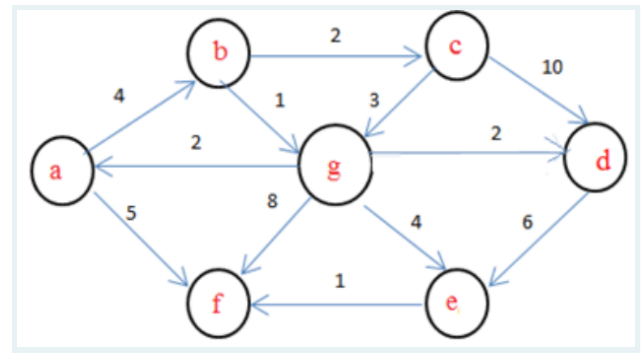
3

Class \*

☐ SE Shift 1

☐ SE Shift 2

4



Consider the following graph.

If b is the source vertex, what is the minimum cost to reach f vertex? \*

(5 Points)

- ☐ 8
- ☐ 9
- ☐ 4
- ☐ 6

5

Dijkstra's Algorithm is used to solve \_\_\_\_\_ problems. \*

(2 Points)

- ☐ All pair shortest path
- ☐ Single source shortest path
- ☐ Network flow
- ☐ Sorting

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Dijkstra's Algorithm cannot be applied on \_\_\_\_\_ \*

(2 Points)

- ☐ Directed and weighted graphs
- ☐ Graphs having negative weight function
- ☐ Unweighted graphs
- ☐ Undirected and unweighted graphs

7

What is the maximum number of edges in a bipartite graph having 10 vertices? \*

(2 Points)

- ☐ 24
- ☐ 21
- ☐ 25
- ☐ 16

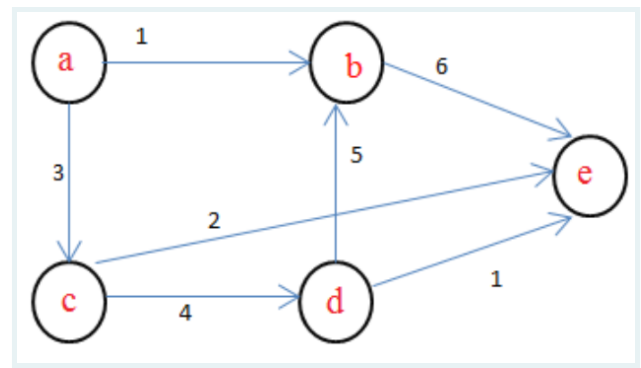
8

Which of the following properties does a simple graph not hold? \*

(2 Points)

- ☐ Must be connected
- ☐ Must be unweighted
- ☐ Must have no loops or multiple edges
- ☐ Must have no multiple edges

9



In the given graph:

Identify the shortest path having minimum cost to reach vertex E if A is the source vertex \*

(5 Points)

- ☐ a-b-e
- ☐ a-c-e
- ☐ a-c-d-e
- ☐ a-c-d-b-e

10

Which of the following is true? \*

(2 Points)

- ☐ A graph may contain no edges and many vertices
- ☐ A graph may contain many edges and no vertices
- ☐ A graph may contain no edges and no vertices
- ☐ A graph may contain no vertices and many edges

