

CIS 3223 Short Quiz 6

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1 Let $G = (V, E)$ be an undirected and connected graph. Determine if each of the following statements are **true** or **false**.

(a) If e is part of some MST of G , then it must be the lightest across some cut of G .

true false

(b) The shortest path between two nodes must be part of some MST.

true false

(c) If all the weights are distinct, then G has a unique MST.

true false

2 Is the algorithm for the 0-1 knapsack problem a greedy algorithm?

yes no