Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 70%. We keep your highest score.

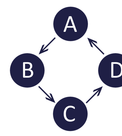
Next Item →

1. The example given in the lectures of when a power network loses power in large portions of its service area was an example of what? 1 / 1 point

- an attack which causes disconnection of the graph
- high levels of connectivity which make it easy to bring a network down
- a problem that can occur when centrality is too high

Correct

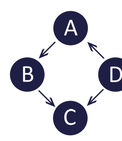
2. Is the following graph strongly connected, weakly connected or neither? 1 / 1 point



- neither
- weakly connected
- strongly connected

Correct

3. Is the following graph strongly connected, weakly connected or neither? 1 / 1 point



- neither
- strongly connected
- weakly connected

Correct

4. If you were going to look for a node which would be most likely to be the target of an attack to disconnect a network, what would be the best characteristic to look for? 1 / 1 point

- nodes that, if they were removed, would cause the graph to go from strongly connected to weakly connected
- high degree nodes
- low degree nodes

Correct

5. What is the in-degree of node B? 1 / 1 point

- 0
- 1
- 2
- 3

Correct

6. In the graph below, which node is the greatest listener? 1 / 1 point

- A
- B
- C
- D

Correct

7. In the graph below, which nodes are the greatest communicators? (Hint: there's a tie) 1 / 1 point

- [x] A

Correct
Right, A has out-degree 2 and in-degree 2.

- [ ] B
- [x] C

Correct
Right, C has out-degree 2 and in-degree 2.

- [ ] D

8. What would we be looking for if we followed the steps below? Note: we have 2 graphs. 1 / 1 point

1. Create a table for each graph where, for each node, you list the degree of the node.
2. For each graph, create a histogram indicating how many nodes in that graph have a specific degree (e.g., how many nodes have degree 1? 2? etc.).
3. Use advanced approaches (e.g. Euclidean distances) to compare these two histograms.

- Community
- Centrality
- Similarity
- Connectivity

Correct

9. Which of the following are the three type of analytics questions asked about communities? 1 / 1 point

- [x] Static

Correct

- [x] Evolution

Correct

- [x] Prediction

Correct

- [ ] Connection

10. What type of community analytics question is the following? 1 / 1 point

Did a community form on twitter around the 2014 World Cup in Brazil?

- Evolution
- Static
- Prediction
- Connection

Correct

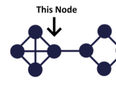
11. Which type of community analytics question is the following? 1 / 1 point

How tightly knit was the 2014 World Cup twitter community on July 13, 2014 (the day of the finals)?

- Evolution
- Static
- Prediction
- Connection

Correct

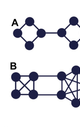
12. What is the external degree of the node indicated in the graph below? 1 / 1 point



- 1
- 2
- 3
- 4

Correct

13. Which of the two graphs below is more modular? 1 / 1 point



- A
- B

Correct

14. Which of the following community tracking phases usually occurs when a company spins off a start-up? 1 / 1 point

- Death
- Birth
- Merge
- Contract
- Split
- Grow

Correct

15. An influencer in a network is defined as: 1 / 1 point

- a node which has heavy weight edges to at least 1/2 of the nodes in the network
- a node which can reach all other nodes quickly
- the biggest gossip in the network

Correct

16. Which of the following are the 2 core "key player" problems that centrality analytics can address? 1 / 2 point

- [x] Which nodes' removal will maximally disrupt the network

Correct

- [x] A set of nodes which can reach (almost) all other nodes

Correct

- [ ] What is the shortest path through a network
- [ ] Which nodes have the highest ratio of out-degree nodes to in-degree nodes

17. What kind of centrality would you want to analyze in a graph if you wanted to inject information that flows through the shortest path in a network and have it spread quickly? 1 / 1 point

- Group
- Degree
- Between-ness
- Closeness

Correct

18. What kind of centrality would you want to analyze in a graph if you wanted maximize commodity flow in a network? 1 / 1 point

- Group
- Closeness
- Degree
- Between-ness

Correct

19. What kind of centrality identifies "nuisness"? 1 / 1 point

- Degree
- Closeness
- Between-ness
- Group

Correct