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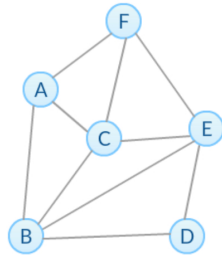
## Module 4 Quiz

LATEST SUBMISSION GRADE

100%

1. Suppose  $P(k)$  denotes the degree distribution of the following network, what is the value of  $P(2) + P(3)$ ?

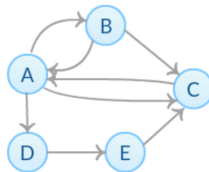
1 / 1 point



✓ **Correct**

2. Let  $P(k)$  denote the in-degree distribution of the given network below. What value of  $k$  gives the highest value of  $P(k)$ ?

1 / 1 point



✓ **Correct**

3. Select all that apply

1 / 1 point

✓ **Correct**

4. Select all that apply

1 / 1 point

✓ **Correct**

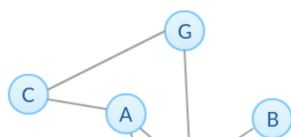
5. Suppose we want to generate several small-world networks with  $k$  nearest neighbors and rewiring probability  $p$ . If  $p$  remains the same and we increase  $k$ , which best describes the variation of average local clustering coefficient and average shortest path?

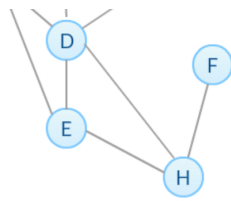
1 / 1 point

✓ **Correct**

6. Based on the network below, suppose we want to apply the common neighbors measure to add an edge from node H, which is the most probable node to connect to H?

1 / 1 point

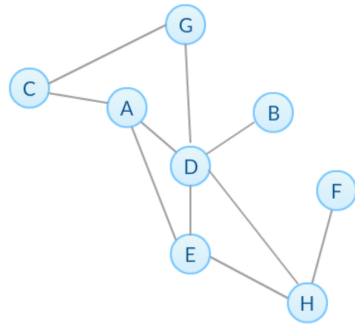




✓ Correct

7. Based on the network below, what is the Jaccard coefficient of nodes D and C?

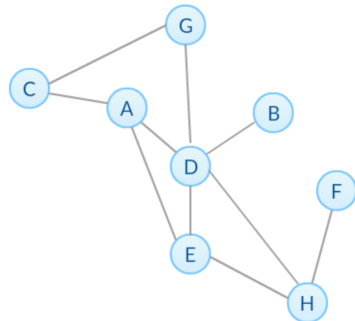
1 / 1 point



✓ Correct

8. Based on the network below, if we apply Resource Allocation method to predict the new edges, what is the value of Resource Allocation index of nodes C and D?

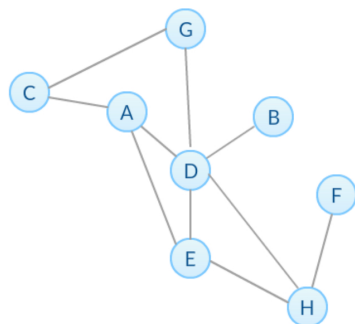
1 / 1 point



✓ Correct

9. Based on the network below, what is the preferential attachment score of nodes C and D?

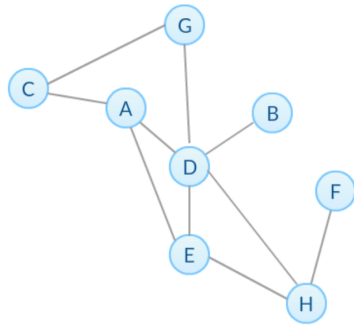
1 / 1 point



✓ Correct

10. Assume there are two communities in this network: {A, B, C, D, G} and {E, F, H}. Which of the following statements is(are) True? Select all that apply.

1 / 1 point



✓ Correct