Cybersecurity:
Denial-of-Service Attack

Name _____

Date: _____

Student quiz

Directions: Write your answer for the first question and circle the best answer for the multiple-choice question.

1. Describe the main goal of a denial-of-service attack.

2. After observing an IT network for a given period, e.g. 2 minutes or a few hours, which of the following variables would reflect best how the network performs? (Note: legitimate requests are all but false requests, or all but requests issued by an attacker.)
    a. The total number of legitimate requests processed.
    b. The percentage of legitimate requests processed out of the number of legitimate requests reaching the server.
    c. The number of legitimate requests dropped.
    d. The number of legitimate requests issued by the clients.

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Directions: Circle the best answer for each question below.

3. You observe an IT network for a given period and measure the values as listed in the table. Which of the cases shows the strongest indication that a denial-of-service attack is being executed?

	Number of legitimate requests dropped	Number of legitimate requests processed	Number of legitimate requests in the server queue	Number of legitimate requests waiting for the Internet to be delivered
Case A	0	80	10	10
Case B	40	200	33	40
Case C	120	80	40	80
Case D	1	130	40	15

   a. Case A
   b. Case B
   c. Case C
   d. Case D
   e. All cases show strong indication that a denial-of-service attack is being executed.
   f. No case shows strong indication that a denial-of-service attack is being executed.

4. Which of the following solutions will **not** help alleviate the consequences of a denial-of-service attack?
   a. Implement a fire wall.
   b. Add a second server that can help process requests.
   c. Increase the internet capacity.
   d. Increase the buffer size of server(s).

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Directions: Circle the best answer for each question below.

5. Which of the following solutions would you state as being most successful in handling a denial-of-service attack.

	Number of legitimate requests dropped	Number of legitimate requests processed	Number of legitimate requests in the server queue	Number of legitimate requests waiting for the internet to be delivered
Solution A	10	180	30	10
Solution B	2	180	30	10
Solution C	1	120	80	19
Solution D	10	80	1	2

a. Solution A
b. Solution B
c. Solution C
d. Solution D