

INFO 102 Spring 2026 Quiz 3

Name: _____

NetID: _____

Each question has a box where you should clearly write your answer. If options are listed with letters, put the letter you chose in the box; otherwise put the word or number in the box.

Question 1: 29 days ago it was revealed that the most commonly-used digital certificate checker let people take over computers if they had a certificate with a comma in it. Given that,

- A. Adding a comma is an exploit
- B. Adding a comma is a vulnerability
- C. Both
- D. Neither

Dropped. I failed to point out that the added comma is input, not code

Question 2: Having your browser remember your passwords is

- A. Safe, like other password managers
- B. Unsafe, it weakens the browser
- C. Unsafe, passwords should stay in human memory not computer

A

Question 3: If key K decrypts signature S to the hash of message M then

- A. K's owner wrote M
- B. M describes K's owner
- C. M was signed by K's owner
- D. S is invalid

C (half for A)

Question 4: If I figure out how to log in as if I were you, that is a failure of

- A. Authentication
- B. Authorization
- C. Confidentiality
- D. Integrity

A (half for B)

Question 5: I want to send you a secret, using IP to get it to you.

- A. I should also use a digital certificate to keep it secret
- B. I should also use a hash to keep it secret
- C. I should also use a symmetric cipher to keep it secret
- D. None of the above; IP keeps messages secret for me

C

Question 6: Suppose the IP address of courses.grainger.illinois.edu changed. How would your computer find that out?

- A. It doesn't need to find it out
- B. The courses webserver would tell it
- C. The edu DNS server would tell it
- D. The grainger DNS server would tell it
- E. You'd have to tell it yourself
- F. Your ISP would tell it

D (half for C)

Question 7: What is something an IP routing server can do without any exploits of vulnerabilities, just using IP's basic structure?

- A. Add you to a botnet
- B. Control what websites you can see
- C. Read your email
- D. See passwords you type in websites

C (half for B)

Question 8: The following are all true of the cloud; which one makes cloud computing more energy efficient than local computing?

- A. Apps can change which servers they run on as they run
- B. Apps rent, not own, servers
- C. Less-used apps cost less
- D. Servers each hosts multiple apps

Dropped. I failed to contrast client energy from total energy use.

Question 9: Why do battery chargers include computers?

- A. To control actuators
- B. To interpret sensors
- C. To provide customization or settings
- D. To perform complex computation

B (half for D)

Question 10: Smart devices are often added to botnets because they are rarely updated and they

- A. Are on the Internet
- B. Are powerful computers for bitcoin mining
- C. Can be used to extort money from their owners
- D. Have access to multiple sensors

A

Question 11–12: What are the two most important tips for computer security?

Update your computer often

Different passwords for each site

Question 13: If your browser warns you that a website's certificate expired a month ago,

- A. back away: the site has been hacked
- B. be cautious: there's a little risk, but not much
- C. go ahead: that doesn't matter

Dropped. This depends too much on the site and your risk aversion

Question 14: I should use TCP if I want

- A. to communicate reliably
- B. to communicate securely
- C. to use URLs instead of IP addresses
- D. to use IP addresses instead of URLs

A

Question 15: Which of the following can you send but not receive because you have an ISP instead of being part of the Internet?

- A. Digital certificates
- B. Diffie-Helmen key exchanges
- C. DNS requests
- D. Messages over IP
- E. TCP packets

C