

## Short Essay Questions

- when preparing your answers for these short essay questions, please keep in mind that each question is worth 4 marks which implies that you need to make at least four points. Also, please note that terms like **Describe, Discuss, Differentiate** mean that we are looking for a sentence or two for each point (not just a list of terms). Ten (10) of these short essay questions will appear on Test 1.

### Lecture 1

1. Describe the machine cycle.
2. Describe the three main components of a computer.
3. Describe four components of a CPU.
4. Describe four different types of storage used in a computer.
5. Why is it important to have fans in a computer?

### Lecture 2

6. Describe four functions of an operating system.
7. Discuss four types of utility programs that you use to manage your own computer system.
8. Describe two advantages and two disadvantages of cloud software.
9. Describe how spreadsheets programs are particularly useful for "what-if" analysis and data visualization.

### Lecture 3

10. List four ways that a Web site is able to generate revenue. Give an example of each.
11. Describe four ways which help lower the rate of shopping cart abandonment.
12. Discuss four ways that companies can protect their digital content.
13. Describe four ways that you can support green computing at home.

### Lecture 4

14. Describe the differences between wired and wireless networks.
15. Describe some of the ways we can use to classify networks (by topology, architecture, size).
16. Describe three types of wired networking media.
17. Describe the roles of TCP and IP
18. Describe the differences between accessing the Internet using cable or phone lines.
19. Describe the evolution of networks

### Lecture 5

20. We talked in class about what hackers do after patches are released. Describe what they do, and how is this problematic?
21. Describe 3 characteristics which increase the strength of a password. Describe a tool which aids in maintaining unique passwords for everything.
22. Describe 4 of the 5 most common techniques used to execute a social engineering attack.
23. Why is it important that prime factorization is a hard problem to solve (for large numbers anyway)?
24. Discuss two Pros and two Cons of the NSA (US National Security Agency) sitting on NIST (National Institute of Science and Technology) cryptographic standards boards.
25. Describe four things you trying to protect with security
26. Describe four corporate activities discussed in class that have undermined security or privacy

## Terms

- we will choose twenty (20) of the following terms to appear in a matching question on Test 1

1. analog
2. asynchronous
3. bluetooth
4. bridge
5. broadcast
6. digital
7. Ethernet
8. firewall
9. hub
10. ICMP
11. Internet
12. LAN
13. packet switching
14. PAN
15. parallel
16. protocol
17. RAM
18. ROM
19. router
20. serial
21. WAN
22. phishing
23. hash function
24. rainbow table
25. dictionary attack
26. two factor authentication
27. VPN (Virtual Private Network.)
28. Warrant Canary
29. Cryptographic Salt (or Salting)
30. Bitcoin
31. Linux
32. shareware
33. virtual memory
34. tile
35. kernel
36. software suite
37. query
38. Near field communication
39. Digital wallet
40. Search engine optimization
41. Trademark
42. Code of conduct
43. Ergonomics