

Chapter 01:

1. Virus is a general term for harmful programs installed without the user's knowledge, while malware is a specific type of virus that changes the way a computer operates.

T F

False : malware is the more general term, a virus is a kind of malware

2. Data can be transformed into information via data processing operations.

T F

True

3. Hardware refers to the physical parts of a computer system while _____ refer(s) to the intangible components.

a. operating systems b. applications c. software d. malware e. processing

c. software : a, b & d are types of software; e is intangible, but an action not a component

4. A(n) _____ is a collection of hardware, computer systems and other devices that are connected together and can communicate with each other.

a. network b. Internet c. server d. web site e. computer

a. network

5. Which of the following is **not** a basic primary computer operation?

a. input b. processing c. output d. storage e. heating

e. heating : this is an unwanted by product of computer operation

6. Write out an example URL and label the key parts:

<http://www.cord.edu/faculty/pikalek/Pikalek-Vita-2008.pdf>

protocol server path resource or filename

Chapter 02:

7. ASCII cannot represent as many characters as Unicode.

T F

True : Unicode came after ASCII to help address this problem

8. There is typically only a single data bus in a personal computer.

T F

False : there are a number a different buses

9. A(n) _____ may be installed inside a computer to increase its functionality.

a. motherboard b. register c. remote device d. expansion card e. LAN

d. expansion card : it expands the functionality of the computer

10. There are _____ bits in a byte of memory.

a. 6 b. 8 c. 7 d. 2 e. it varies

b. 8

11. Convert the following number to binary: 1234

1234 ÷ 2 = 617 R 0
617 ÷ 2 = 308 R 1
308 ÷ 2 = 154 R 0
154 ÷ 2 = 77 R 0
77 ÷ 2 = 38 R 1
38 ÷ 2 = 19 R 0
19 ÷ 2 = 9 R 1
9 ÷ 2 = 4 R 1
4 ÷ 2 = 2 R 0
2 ÷ 2 = 1 R 0
1 ÷ 2 = 0 R 1
0 ÷ 2 = 0 R 0 final answer: 10011010010

12. List, in order, the steps of the machine processing cycle:

Fetch, decode, execute, store

Chapter 03:

13. Storage media, unlike RAM, is volatile.

T F

False : storage is nonvolatile while RAM is volatile

14. Hard drives have a single spiral track while tracks on an optical disc consist of concentric circles.

T F

False : hard drives disks have concentric circle tracks, optical discs have a single spiral track

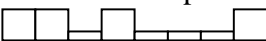
15. _____ are the three components that determine the total time it takes for a hard drive to read or write data.

- a. Seek time, rotational delay & data transfer time
 - b. Seek time, rotational delay & data processing time
 - c. Capacity, rotational delay & data processing time
 - d. Capacity, clock speed & data transfer time
 - e. Partitioning, clock speed & mirroring
- a. Seek time, rotational delay & data transfer time

16. Magnetic tape systems are **not** _____.

- a. sequential access
 - b. used for archival purposes
 - c. used for backup purposes
 - d. random access
 - e. magnetic media based
- d. random access

17. Assume you have the following information on an optical disc: land, land, pit, land, pit, pit, pit, land.

Graphically, you could represent this as: 

Write out the corresponding binary pattern for the data encoded on that section of the disc.

Every time it changes from the previous spot the result is a 1; every time it stays the same, the result is a 0.

Since we don't know what came before the first spot, we don't have a bit for it. Thus the result is:



na 0 1 1 1 0 0 1

Extra credit: write out the corresponding decimal number for the binary data in question 17.

$$\begin{array}{r} 1 \times 2^0 = 1 \\ 0 \times 2^1 = 0 \\ 0 \times 2^2 = 0 \\ 1 \times 2^3 = 8 \\ 1 \times 2^4 = 16 \\ 1 \times 2^5 = \underline{+32} \\ 57 \end{array}$$

18. Briefly, describe the difference between RAID 0 and RAID 1.

RAID 0 uses data striping meaning that data for a given file gets split among 2 or more hard drives

RAID 1 uses data mirroring meaning that data for a given file is replicated (mirror image copy) among 2 or more hard drives.

Chapter 04:

19. Optical scanner resolution is typically measured in DPI.

T F

True

20. Printer resolution is typically measured in DPI.

T F

True

21. A(n) _____ is not an example of biometric data, but a(n) _____ is.

- a. spoken password, finger print
- b. finger print, typed password
- c. typed password, finger print
- d. iris scan, RFID chip
- e. RFID chip, iris scan
- c. typed password, finger print

22. Give an example of a device that acts as both an input & output device. Explain your answer.

A touch screen display – it accepts pointing device type input (for example pressing a button is treated the same way as if you had clicked it) and provides visual output like a regular monitor would.

Chapter 05:

23. Command line interfaces are completely non graphical.

T F

False : as shown from the in class slides the XP command 'tree' provides a visual layout of the file & directory structure

24. The two primary goals of an operating system are programmability & automated computation.

T F

False : the two primary goals are 1) to make things easier for the user & 2) to operate the computer efficiently. Programmability & automated computation are the two main characteristics that separate computers from other devices like simple calculators, clocks, toasters, etc.

25. A(n) _____ is a section of memory designated to hold input or output on their way into or out of the system.

- a. spool
- b. partition
- c. virtual memory segment
- d. sector
- e. buffer

26. Which of the following is not part of process management?

- a. creation
 - b. synchronization
 - c. deletion
 - d. formatting
 - e. scheduling
- d. formatting – this is a file system / disk management operation

27. List the primary job categories of an operating system:

- Process management
- Memory management
- File management
- Storage management
- I/O management
- Protection & security