**Objectives covered include: all parts of 2, 3, 4, 7, 8, 9, 10**

**Study the Objectives and Your Completed Notes**

**Want to make an A?** Make sure you can ANSWER/DO each objective and complete the Notes

Intro, Basics, History

* What are the book identified benefits of being computer fluent
* What do the following have to do with computer history? Altair, ENIAC, UNIVAC, Babbage, Lovelace, Berners-Lee, Andreessen, ARPAnet
* What is the distinguishing characteristic of each generation in computer history? Identify characteristics of computers of the early 1950.
* What did Steve Wozniak, Steve Jobs, and Bill Gates do for computing?
* Which computer was first built for the home instead of business?

Looking at Computers

* Define: computer, data, information, software, hardware, bit, byte, number system, encoding scheme, ASCII, Unicode, system unit, CPU (recognize the CPU)
* What number system is used by computers? What can computers do with this number system? What number system is used as a shortcut to display binary numbers?
* What are the four major functions of a computer?
* What are the two types of electronic signals? What is the relationship between electronic signals inside a computer and binary digits?
* Convert a binary number to decimal; convert a decimal number to binary
* What are the four main components in a computer’s system unit? (motherboard, expansion cards and slots, drives, ports) Define and recognize each.

Understanding Hardware and Software

* What measure describes the speed of a computer’s processor?
* How big are the various byte measures? (e.g., B, KB, MB, GB, TB, PB)
* What is each of the following and how is it used in computing: ROM, RAM, cache, flash, bus? What are the two main types of memory? Recognize RAM.
* List and define the two main types of software and give examples of each.

Determine the type of a particular software package.

* Describe and give examples of the following: freeware, shareware, beta version, open source software.
* What are the two main types of secondary/mass/permanent storage? How does each represent bits? What are examples of storage media of each type?
* What is data compression? How do the two types differ? When would they be used?

Networks and Networking

* Know the meaning of and how to use the following terms: Network, analog signals, digital signals, client, server, peer-to-peer
* Be able to give examples of the following:

Guided media, unguided media, network applications, plug-ins

* Describe the following (what it means, what it does, where it is used):

Modem, NIC, switch, router, protocol, PAN, LAN, MAN, WAN, Ethernet, intranet, extranet

* What are some reasons to build a home network?
* What is the relative speed of Internet access using traditional modems, cable modems, 3G networks, DSL, and fiber optic technologies? What is the medium for cable and DSL communications?

The Internet and how it works

* What was the origin of the Internet? What are issues and dangers of using the Internet? What is meant by “netiquette”? Give some examples of the 10 core rules of netiquette.
* What are the major components of the Internet? How are the Internet and the WWW related? What are some services provided on the Internet?
* What is a URL and what does URL stand for? Identify the parts of a specific URL.
* What are some of the most common top-level domains and their purpose?
* Recall Internet history: key factors in its growth, inventor of the first graphical web browser, of the world-wide-web/the ability to do linking. What gives the ability to jump from site to site by clicking Web links? (hypertext transfer protocol-http)
* What is a browser? Name two popular browsers in widespread use today. Do all browsers work alike?
* Web pages are constructed using HTML – what does HTML stand for?

Basics of HTML

What is a tag? How is it recognized? What are its delimiters? What software interprets tags?

What tag starts an HTML document? What tag ends it? What is proper nesting of tags?

What are the major parts of an HTML document? What tags begin/end each?

Where do you put information you want to appear on the main part of your webpage?

Be able to create a link. Know what is printed on the page and what is not.

What are the tag, attribute, and protocols for creating links (to hyperlinks, e-mail, other files).

How do you insert extra spaces on a webpage? What are the delimiters for special characters?

What tag(s) breaks a line of text and forces it to go to the beginning of the next line?

What does a heading or header tag look like? What tag starts/ends a paragraph?

What are some special characters and how are they represented in HTML?

What is an attribute? Distinguish between tags and attributes. What are the delimiters for attributes (what characters surround the value)? What is the general format for tags and attributes?

What tag is used to create a horizontal line?

Identify three empty tags (tags that do not have a beginning and ending pair).

Style and Lists

What is the difference between embedded styles and inline styles? Know purpose, format and location.

What tag(s) and attribute(s) would make an entire web page black with white text?

What character separates attribute-value pairs from other attribute-value pairs in stylesheet rules?

What are the types of lists and what tags create each?

What tags begin and end an individual list item? The term and definition in a definition list?

What are the defaults for lists? How do you change the default? What are the possible values for the list-style-type attribute?

When would you use inline versus an embedded style?

Tables and Images

What tags begin and end an entire table? A single table row? A single data entry?

What does the border attribute do in a table tag? cellpadding? background? align? width?

How do you merge rows in a table? Columns? What is the default value for colspan? Rowspan?

What is the tag to place an image in an HTML document? What is the purpose of the src & title attributes?

Computer Security

* Identify the major computer security points of vulnerability.
* Define the following terms: virus, denial of service, worm, firewall, antivirus software, UPS, tailgating, spam, update
* Distinguish among the various types of hackers: white-hat, black-hat, script kiddies
* Give examples of network security threats.
* Give examples of network security measures/protections.
* Define the following terms: fault tolerance, backup (explain types)
* Give examples of ways to protect the following from unauthorized access, damage, or loss: data, software, identity
* What is encryption? Decryption?

Software Development and GameMaker

* Identify at least 3Types of Software (in addition to system software)
* Name at least 3 steps in the software creation process:
* Software terminology:
  + Define Algorithm, Programming, Degugging. What is another name for programming?
* What do the following GameMaker terms mean? Scripts, Rooms, Sprites, Objects, Sounds, Instances, Background
* How do you create an executable GameMaker file?

Protecting Yourself and Others

* What is a social network? Give an example. What are associated risks?
* List the major types of electronic commerce and give an example of each.
* Define the following terms: spam, spyware, pop-up, cookie, hoax, phishing, pharming
  + How can you protect yourself?
* List some criteria you can use to evaluate the information you find on a web site.
* Define the following terms: software piracy, pilferage, copyright, site license
* What is the Business Software Alliance and what do they do?
* What is green computing? Give examples of “green” computing.
* What is ergonomics? How is it relevant to computing? What is carpal tunnel syndrome?
* What is workplace monitoring and why is it done? Is it legal? What employee abuses might cause an employer to do monitoring?
* What is some personal information that is important to protect?
* What is identity theft? What are some ways to protect against it?
* List some of the “ten commandments” of computer ethics.