Circle the best answer to each of the following (5 points total):

1. Which of the following types of sharing is NOT a benefit of installing a home network?
   a. Peripheral
   b. Internet connection
   c. File
   d. Client/server

2. Which of the following IS a reason client/server networks are generally not installed in homes?
   a. Client/server networks are less expandable than peer-to-peer networks.
   b. Client/server networks don't have as many security features as home networks.
   c. Client/server networks provide less security than is needed in a home network.
   d. Servers are too difficult for most home users to set up.

3. All networks contain the following elements except:
   a. network adapters.
   b. transmission media.
   c. routers.
   d. network software.

4. Because of their complexity, Ethernet networks require network navigation devices to move data from node to node on the network. An example of such a device is a:
   a. network adapter.
   b. switch.
   c. wireless signal sender.
   d. 5E cable.

5. Wireless Ethernet networks are popular because:
   a. wires are not needed.
   b. they provide better security than wired Ethernet networks.
   c. compared to wired Ethernet networks, they are less expensive.
   d. All of the above.

6. Power-line networks are viable alternatives to Ethernet networks because:
   a. they are less expensive than Ethernet networks.
   b. they don’t require running any new wire to install.
   c. they provide twice the throughput of wired Ethernet networks.
   d. All of the above.

7. When hackers use a program that pretends to be useful to a user while actually allowing the hacker to gain control of the user’s computer, this is called a:
   a. Logic bomb attack.
   b. Trojan horse attack.
   c. Distributed Denial of Service Attack.
   d. Boot Sector Virus Attack.
Chapter 7: Networking and Security – cont’d.

8. Which of the following IS a benefit of firewalls?
   a. They make it harder for a hacker to locate specific computers on a network.
   b. They repeatedly change the IP address of the router.
   c. They open unused logical ports to increase throughput.
   d. They filter out unwanted wireless signals.

9. Wireless Ethernet networks are attractive to hackers because:
   a. 802.11 protocol has weak security rules.
   b. You can’t install a firewall on a wireless Ethernet network.
   c. The signals from the network can travel beyond the walls of your home.
   d. Wireless Ethernet networks have much greater bandwidth than wired networks.

10. Viruses that travel from computer to computer rapidly on their own are called:
    a. worms.
    b. stealth viruses.
    c. time bombs.
    d. macro viruses.

Chapter 9: A Closer Look at System Software

Fill in the blanks using the following list of terms (15 points total):

<table>
<thead>
<tr>
<th>cache</th>
<th>binary</th>
<th>fetch</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALU</td>
<td>PCI</td>
<td>L2 cache</td>
</tr>
<tr>
<td>decoded</td>
<td>instruction set</td>
<td>ASCII</td>
</tr>
<tr>
<td>L1 cache</td>
<td>AGP</td>
<td>byte</td>
</tr>
<tr>
<td>number system</td>
<td>control unit</td>
<td>registers</td>
</tr>
<tr>
<td>buses</td>
<td>L3 cache</td>
<td>DRAM</td>
</tr>
</tbody>
</table>

Computers are based on a system of switches, which can be either on or off. The (1) __________________________ number system, which has only two digits, models this well. A(n) (2) __________________________ is a set of rules for the representation of numbers. Eight binary digits are combined to create one (3) __________________________, so they are easier to work with. The (4) __________________________ code organizes bytes in unique combinations of 0s and 1s to represent characters, letters, and numerals.

The CPU organizes switches to execute the basic commands of the system. No matter what command is being executed, the CPU steps through the same four processing stages. First it needs to (5) __________________________ the instruction from RAM. Next the instruction is (6) __________________________, and the (7) __________________________ sets up all of the CPU hardware to perform that particular command. The actual execution takes place in the (8) __________________________. The result is then saved by storing it in the (9) __________________________ on the
Chapter 9: A Closer Look at System Software – cont’d.

CPU. Another form of memory the CPU uses is (10) __________ memory. (11) ______________ is the form of this type of memory located on the CPU. (12) ______________ is located a bit farther from the CPU.

RAM comes in several different types. (13) ______________ must be refreshed each cycle to keep the data it stores valid. The pathways connecting the CPU to memory are known as (14) ______________. The speeds at which they can move data, or the data transfer rates, vary. (15) ______________ is a bus designed primarily to move three-dimensional graphics data quickly.

Chapter 10: Software Programming (Behind the Scenes)

Circle the best answer to each of the following (5 points total):

1. In the SDLC, translating an algorithm from binary to a more human friendly language is considered.
   a. coding
   b. debugging
   c. building a test plan
   d. none of the above

2. Algorithms document
   a. the programming languages to be used in the program.
   b. testing operations to be conducted by the program.
   c. the sequence of decisions and actions the program will take.
   d. documentation the program will include.

3. Programmers can debug program code using:
   a. flowcharts.
   b. pseudocode.
   c. IDE.
   d. None of the above.

4. A compiler for a programming language
   a. is the same no matter which CPU the program is running on.
   b. is the actual machine languages of the CPU.
   c. translates from a human-friendly programming language to binary 1s and 0s.
   d. None of the above.

5. An object, defined by a specific class, is a collection of
   a. data and methods.
   b. ideas and a testing plan.
   c. different programming languages.
   d. class variables.

6. To make code more reusable programmers use modules called
   a. functions.
   b. subroutines.
   c. procedures.
   d. any of the above, depending on the specific language.
7. XHTML has no compiler because
   a. XHTML is written using English words.
   b. most programming languages do not use compilers.
   c. it is a series of tags that can be understood directly by a browser.
   d. None of the above because XHTML does need to be compiled.

8. Debugging a program is not necessary if
   a. there is a testing plan.
   b. it is a beta version of software.
   c. the program compiles.
   d. Debugging is always needed.

9. Which of the following is used in the design of Web applications?
   a. XHTML
   b. JavaScript
   c. PHP
   d. All of the above.

10. Which of the following languages is used if a problem requires a lot of number crunching?
    a. Cobol
    b. C/C++
    c. HTML/XHTML
    d. Windows Vista