I. Long-answer Questions (Points as indicated)

Directions: Read each question completely and carefully and be sure you provide a clear and complete answer. Answer in essay form using complete sentences. Use specific details and examples to support your arguments.

1. (15 points) Compare and contrast primary memory with secondary storage, giving specific examples of each. Explain how each is used and why both are necessary in order for the computer to function.

2. (15 points) Discuss the general role of an operating system. Then name and describe four specific tasks that an operating system typically performs. Name the two operating systems we have used in this course and explain how they differ.
3. **(15 points)** Compare and contrast a typical word processor with a typical text editor and explain which types of task each might be used to accomplish. Describe four things which can be added to a document using a word processor that could not be added to a document using a text editor and explain why.

4. **(15 points)** Explain the role that the binary number system (also known as the base 2 number system) plays in the representation of data within a computer. Explain why the binary number system is used and discuss how it is used to represent different types of data.
II. Fill-in-the-blank Questions (20 blanks worth 2 points each unless otherwise noted)

Directions: The following questions are based upon lectures and the textbook. Read each question carefully and fill in the blank with the word, phrase or term that best completes the sentence. Partial credit may be awarded. The size of the blank does not necessarily indicate the length of the answer.

1. In order to automatically put something (typically a page number or the current date) at the bottom of each and every page of a word processing document, you would insert it into that document’s _______________________________.

2. Name the command commonly found in the Edit menu that can be used (in applications like Word) to copy items from the Clipboard into the buffer: _______________________.

3. The process of copying files from one secondary storage device to another to prevent data loss is called ________________.

4. A computer program that attempts to copy itself into other programs’ files without the user’s knowledge or permission would be considered a(n) _______________________.

5. Magnetic tapes are an example of a storage medium that allows only ___________________ access, making them too inefficient for day-to-day use. Instead, most computers rely on the presence of other storage media that support the much more efficient _______________________ access.

6. Security devices that recognize people by unique physiological characteristics, such as their fingerprints or voice, are called ________________________ devices.

7. ______________________ programs allow files to be stored in a smaller amount of storage space.

8. [1 point each] A unit of about a thousand bytes is referred to as a(n) _________________. A unit of about a billion bytes is referred to as a(n) _________________.

9. Name one form of secondary storage that does not use magnetism to store information: ______________________

10. The mechanism which reads information from and writes information onto a hard disk is called a(n) _______________.

11. The ability of an operating system to support several users simultaneously by giving each a small portion of the processing time in their turn is called _________________.

12. The technique that allows an operating system to run several programs simultaneously for a single user is called _________________________.

13. The process a computer goes through in order to start up when it is turned on is called _________________________.

14. _______________________ is a set of rules and conventions for guiding online behavior.

15. The more technical name for “smileys,” which typically consist of text characters combined to look like faces and are used to convey feelings in written communication such as e-mail, is _________________________________.

16. Primary memory is organized into multiple memory locations, each of which is identified by a unique _________________.

17. A storage method that uses several small, affordable hard disks working together to do the job of a larger disk is called _____________________________________________.

18. An emerging storage technology that uses multiple laser beams in order to store computer data in three dimensions is called _________________________________.

19. Twisted-pair, coaxial and fiber-optic cables are all examples of _______________________________.