Assignment #3

English for Computer Engineering

Computer Engineering Department, Sharif University of Technology

1392 Spring Semester

This assignment may take about 3 hours, depending on your prior knowledge and skills.

Part A: Reading comprehension

Read the three sections on the left-hand page of Unit 8 of your textbook, including the image captions (page 26). Then answer the following questions. The multiple choice questions can have more than one correct answer. If you believe that a question contains ambiguities, you can explain about them, justifying the possible answers based on the different assumptions.

Important tip: Use your dictionary (and also web search, if needed) to understand the terms and phrases in your book or in the questions which you're not familiar with or are not sure about their meaning.

1. Based on a literal reading (خوانش تحت‌اللفظی) of the first paragraph, which one executes instructions?
   a. the PC
   b. the CPU
   c. the single chip
   d. the integrated circuit

2. Based on a literal reading of the first paragraph, which of the following is true?
   a. The processor is the same as the CPU.
   b. The brain of the computer is a small piece of silicon with a complex electrical circuit.
   c. The single chip executes instructions.
   d. The CPU is the same as the chip.
   e. The brain of your computer is the same as the integrated circuit.
   f. The integrated circuit coordinates the activities of all the other units.

3. Which of the following can be inferred from the text?
   a. Disk drives are used in communication of the BIOS with the peripherals.
   b. The instructions executed by the CPU are fetched from the memory.
   c. Expansion cards expand the peripherals to allow for more functionality.
   d. The front side bus coordinates the activities of units other than the CPU.
   e. A computer can boot using only a RAM and a CPU.
   f. The number of concurrent programs which a PC can run is fixed.
   g. Bits are simply representations of each of two states.
h. The peripherals are directly connected by internal paths on the motherboard.

4. Complete the following sentences using vocabulary from Unit 8 left-hand page. Each blank space may contain more than one word.
   a. The personal organizer can ................ your data between your smartphone and your PC.
   b. If you are not sure where the program is installed, ................ it in the “Program Files” folder.
   c. Like the brain in the human body, the CPU is the ................ of all kinds of computers.
   d. ................ computer memory is typically faster than non-................ memory. (Both blanks should be filled with the same word)
   e. Once you post something confidential to the internet, the information will be ................ly out of your control; even if you delete it from the server, someone else might have downloaded and stored it in the meantime, without you noticing it.
   f. Modern software engineering practice requires that security be ................ the software from the beginning of software development, and not be regarded as an afterthought which is simply “added” to the software after it is developed. If a software is not secure, you probably have to rewrite it to make it secure.

Part B: Recognizing usage context for common phrases and sentence patterns

Fill in the blanks, each by using one of the following common phrases and sentence patterns (or their variations) which have been extracted from Units 0 to 6. Each blank space may contain any number of words as needed.

- with the advent of (Unit 0)
- <sentence>, such as X, Y and Z. (Unit 0, exercise 0.2)
- <statement of fact>, but what <clause X> really <adjective or verb> <clause Y> (Unit 1)
- X does something so <adverb> that <sentence> (Unit 1, exercise 1.3)
- As a X, <instance of X> <rest of sentence>. (Unit 2, exercise 2.4)
- X will do Y as <passive sentence about doing Y> (Unit 2, exercise 2.4)
- to design X to do Y (Unit 3)
- come with (Unit 5)
- <description of X> known as <name of X, introduced for the first time> (Unit 5)
- <clause>, for example, <rest of sentence> (Unit 6)
- to represent X in/convert X into/... a form that can be [adverb] seen/understood/sent/... (Unit 6)

a. I have always enjoyed programming, ................ ignited my love of programming was developing my first real-world software which was actually used by a guy when doing his job.

b. Bad programming results in difficult to read and hard to understand code, often ................ spaghetti code.

c. Equipped with such artificial intelligence features, the robot can ................ detect when you leave the home.

d. There are a few commonly used operating systems to choose from ..................
e. Before programs can be run, they should be directly executed by hardware.

f. Netbooks to be used for simple, mundane tasks such as everyday word processing and web browsing.

g. The logic circuit I designed and implemented worked expected by the lab teacher.

h. modern touchscreen tablets, the way users interact with computers is fundamentally changing.

i. Open source software source code.

j. The file search runs you won’t need to wait for it more than a few seconds.

k. electrical engineer, I need to know how to use circuit design software.