EXAMINATION INSTRUCTIONS

* Do not turn this page until asked to do so.
* Exam time is 40 minutes.
* Put the answers on the same question sheet, do not use any additional papers, even for scratch.
* Write your name, ID, section no. in the indicated places.
* Read the exam instructions.
* Read the honesty policy.
* Sign the following statement.

Academic Integrity Policy

Cheating in Exams is a violation of the Academic Integrity policy of AUC. Whispering, talking, looking at someone else’s paper, or copying from any source is considered cheating. Any one who does any of these actions or her/his answers indicates that she/he did any of them, will receive a punishment ranging from zero in this exam to failing the course. If repeated, it may lead to dismissal from AUC.

I have read the honesty policy and exam instructions and I am presenting this exam as entirely my effort.

Signature: ________________

DO NOT USE THIS SECTION

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Question 1 (20 points)
Complete the following statements:

1. A ___________________ may translate statements in ________________ language into several statements in ________________ language while a statement in ________________ language usually is translated into one statement in ________________ language.

2. The correct order of the operations: execution, translation, loading, linking is: ________________________, ________________________, ________________________, ________________________.

3. The ________________ finds syntax errors in the ________________ file.

4. Computers are becoming ________________ expensive and ________________ in size.

5. A Computer ________________ is a collection of computers and other hardware devices that are connected together to share hardware, software, and data.

6. The ________________ unit of a Computer executes all arithmetic and logical operations.

7. ________________ is a code attached to another program that spreads through a computer's disk memory, disrupting the computer or erasing information.

8. ________________ is the violation of copyright agreements by illegally copying software for use in another computer.

9. A ________________ is a program that lets Users display and view a Web document and activate links to other documents.

10. A ________________ is a list of instructions that enables a computer to manipulate data in order to perform a specific task.

Question 2 (10 points)
Determine whether each characteristic below applies to main memory or secondary storage memory: (a) Faster to access, (b) Volatile, (c) May be extended almost without limit, (d) Less expensive, (e) Used to store files, (f) CPU accesses it to obtain the next machine language instruction for execution, (g) Provide semipermanent data storage.

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QUESTION 3 (10 points)

Some of the following statements are completely correct while others are partially correct (only part of it that is incorrect). Mark those statements that are correct and try to correct those that are partially correct.

1. A software product is an intellectual property. It is an original work of authorship. Intellectual property has rights that can be assigned, licensed, or used as collateral. There are currently four commonly used ways in which intellectual property rights can be identified and hence protected:
   (1) Registration  (2) Patent  (3) Trademark  (4) Trade Secret

2. Software Piracy is the acquisition and use of legal copies of software.

3. Because the source program in a software product is an original work of authorship, it is protected by copyright law. Copyright law protects all original works of authorship against unauthorized copying. Copyright protection means that the owner of the copyright has not the exclusive right to make, use, and/or sell the original work.

4. The size of Computer storage is measured in terms of Kilobytes, Megabytes, and Gigabytes, where one Kilobyte = $10^3$ Bytes, one Megabyte = $10^6$ Bytes, and one Gigabyte = $10^9$ Bytes.

QUESTION 4 (10 points)

1. Convert the following to the base indicated:
   
   (34)$_{10}$ = ( )$_2$
   (111011101)$_2$ = ( )$_{10}$
   (10000000)$_2$ = ( )$_{10}$
   (11111111)$_2$ = ( )$_{10}$
   (177)$_{10}$ = ( )$_2$

2. Add (77)$_{10}$ to (31)$_{10}$ in an unsigned fixed-point binary format.

Good Luck