Section 1 Exercises

Exercise 1:

What is the function of the secondary memory in a computer?

a) Execute all of the computation and logic of the program  
b) Retrieve web pages over the Internet  
c) Store information for the long term, even beyond a power cycle

d) Take input from the user

Exercise 2:

What is a program?

A set of instructions that specifies a computation

Exercise 3:

What is the difference between a compiler and an interpreter?

Compiler – translates a program written in a high-level language into a low-level language all at once for later execution

Interpreter – execution of a program in a high-level language by translating one line at a time

Exercise 4:

Which of the following contains “machine code”?

a) The Python interpreter  
b) The keyboard  
c) Python source file  
d) A word processing document

Exercise 5:

What is wrong with the following code:

>>> primt 'Hello world!'

File "<stdin>", line 1

primt 'Hello world!'

^

SyntaxError: invalid syntax

>>>

Print is misspelled

Exercise 6:

Where in the computer is a variable such as “x” stored after the following Python line finishes?

x = 123

a) Central processing unit

b) Main memory

c) Secondary memory

d) Input devices

e) Output devices

Exercise 7:

What will the following program print out:

x = 43 x=x-1 print(x)

a) 43  
b) 42  
c) x + 1  
d) Error because x = x + 1 is not possible mathematically

Exercise 8:

Explain each of the following using an example of a human capability: (1) Central processing unit, (2) Main Memory, (3) Secondary Memory, (4) Input Device, and (5) Output Device. For example, “What is the human equivalent to a

Central Processing Unit”?

1) CPU – Nervous System

2) Main Memory – Brain

3) Secondary Memory – Brain

4) Input Device – Senses

5) Output Device – Body