**CHAPTER 2**

True/False

1. False
2. True
3. False
4. True
5. False
6. True
7. True
8. False
9. True
10. False

Multiple choice

1. c
2. a
3. d
4. c
5. b
6. b
7. b
8. d
9. a
10. d

Discussion

1. Development; this step involves making the software available to users including configuration, installation and user training at times.

Maintenance; this step ensures regular update of software basing on the user feedback and changing requirements.

Analysis and requirements; this is the first step for any project and involves gathering and writing software.

Planning; this involves defining the project purpose and the desired result.

Testing; After coding the software undergoes rigorous testing to identify and fix bugs or issues.

Software design; this process is about creating how a software system will work before it is implemented, mainly for crating a blueprint.

1. Definite loops are a broader category that describes any loop. Both for loops and counted loops fall here.

A for loop is a specific type of definite loop that is commonly used in programming to iterate over sequences or ranges.

Both counted and for loops are valuable for tasks where the number of repetitions is known in advance, allowing for clean and efficient code.

1. a) For i in range (5)

print (i \* i)

output:

0

1

2

4

9

16

b) for d in [3,1,4,1,5]:

print (d, end=””)

output:

31415

c) for i in range(4):

print(“Hello”)

output:

Hello

Hello

Hello

Hello

d) for i in range (5):

print(i,2\*\*I)

output:

0 1

1 2

2 4

3 8

4 1 6

1. writing pseudocode helps clarify the program’s logic before coding, reducing the likelihood of errors and making the coding phase smoother
2. Hint: sep is short for separator.

Test your idea by either by trying it interactively or by consulting the python documentation.

The separator parameter in print specifies what to place between multiple items.

1. Print(“start”)

For i in range (0)

Print(“Hello”)

Print(“end)