**Multiple Choice [12 Marks]**

Circle the best answer from the choices for each question below:

1. What is not a property of a digital “bit”?
   1. It is the building block for computer logic and memory
   2. Four bits are needed to represent alphanumeric (ASCII) characters
   3. Four bits are called a “byte”
   4. It can have a value of “0” or “1”
2. What is not a property of a digital “word”?
   1. It can have a minimum signed integer value of -32,768
   2. It can have a maximum unsigned integer value of 65,535
   3. It is made up of 8 “bits”
   4. It is made up of 2 “bytes”
3. The decimal equivalent of the binary number “1011” is:
   1. 8 + 2 + 1 = 11
   2. 1000 + 2 + 1 = 1003
   3. 10 + 11 = 21
   4. 10 + 3 = 13
4. The hexadecimal equivalent of the binary number “1011 1001” is:
   1. ABA1
   2. B09
   3. 1109
   4. B9
5. What is not a property of a Python string?
   1. A string is a Python data type
   2. A string is defined using quotation marks
   3. A string stores letters a variable stores numbers
   4. A string can contain punctuation marks
6. What is not a property of a Python Booleans?
7. A Boolean is a Python data type
8. A Boolean can have a value of True or False
9. A Boolean can have a value of 0 or 1
10. An example of a Boolean expression is “5 >= 6”
11. Which of the following expressions is not a valid Python string type?
12. ‘String’[6]
13. “String”
14. “Word”[2]
15. “True”
16. Which of the following expressions results in a valid Python integer type?
17. 3/3
18. 3/4
19. 3.0 \* 4
20. 3%3
21. Which of the following expressions results in a valid Python float type?
22. 5/1
23. 5\*1
24. round(5.0/1)
25. 5/0.0
26. Which of the following expressions the variable ‘Number’ a value of 5?
27. Number == 5
28. Number = 5
29. Number = Five
30. Number += 4
31. Which of the following expressions is not a valid string operation?
32. “word” == “Three”
33. “word” + “Three”
34. “word”[3]
35. “word” \* “Three”
36. Which of the following Python statements is the most correct for opening the indicated binary file type for writing?
    1. Open(“myFile.bmp”, “w”)
    2. Open(“myFile.bmp”, “wb”)
    3. Open(“myFile.txt”, “wb”)
    4. Open(“myFile.bmp”, “b”)

B1. describe fundamental programming concepts and constructs;

B2. plan and write simple programs using fundamental programming concepts;

B3. apply basic code maintenance techniques when writing programs.

A1. demonstrate the ability to use different data types in expressions in simple computer programs;

A2. demonstrate the ability to use control structures and simple algorithms in computer programs;

A3. use proper code maintenance techniques and conventions when creating computer programs.

**Task #1 [12 Marks]**

Create a folder called “Summative Answers” in your GitHub repository. Provide the URL for this folder below.