Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_\_\_\_

Programming in Python – MPA1

\_\_\_\_\_\_\_ 1. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was the type of insect that caused the first computer issues.

a. grasshopper

b. butterfly

c. moth

d. cockroach

\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is widely considered the first computer programmer.

a. Charles Babbage

b. Grace Hopper

c. Guido van Rossum

d. Ada Augusta

\_\_\_\_\_\_\_ 3. Eliminating bugs in a program is commonly called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. debugging

b. hunting

c. problem solving

d. searching

\_\_\_\_\_\_\_ 4. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ error is the toughest to locate.

a. syntax

b. logic

c. run-time

d. there is an error in the question

\_\_\_\_\_\_\_ 5. A(n) \_\_\_\_\_ is a diagram that graphically depicts the steps that take place in a program.

a. flowchart

b. algorithm

c. code

d. pseudocode

\_\_\_\_\_\_\_ 6. The smallest storage location in a computer’s memory is known as a \_\_\_\_\_.

a. byte

b. twip

c. switch

d. bit

 \_\_\_\_\_\_ 7. The \_\_\_\_\_ built-in function is used to read a number that has been typed on the keyboard.

 a. input()

 b. read()

 c. get()

 d. print()

\_\_\_\_\_\_\_ 8. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a set of instructions that a computer follows to perform a task.

a. program

b. algorithm

c. psuedocode

d. flowchart

\_\_\_\_\_\_\_ 9. After the execution of the following statement, the variable **sold** will reference the numeric literal value as a(n) \_\_\_\_\_ data type: sold = 256.752

a. int

b. float

c. str

d. currency

\_\_\_\_\_\_\_ 10. After the execution of the following statement, the variable **price** will reference the value \_\_\_\_. price = int(68.549)

a. 68

b. 69

c. 68.55

d. 68.54

\_\_\_\_\_\_\_ 11. What symbol is used to mark the beginning and end of a string?

a. Slash

b. Asterisk

c. Quotation

d. Comma

\_\_\_\_\_\_\_ 12. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ character is a special character that is preceded with a backslash, appearing inside a string literal.

a. break

b. escape

c. arithmetic

d. concatenation

\_\_\_\_\_\_\_ 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are notes of explanation that document lines or sections of a program.

a. quotes

b. messages

c. annotations

d. comments

\_\_\_\_\_\_\_ 14. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a name that represents a value stored in the computer’s memory.

a. variable

b. rom

c. assignment

d. literal

\_\_\_\_\_\_\_ 15. Python uses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to categorize values in memory.

a. files

b. data types

c. boxes

d. remarks

\_\_\_\_\_\_\_ 16. When the + operator is used with two strings, it performs string \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. encapsulation

b. concatenation

c. tallying

d. totaling

\_\_\_\_\_\_\_ 17. A Boolean variable can reference one of two values: \_\_\_\_\_.

a. yes or no

b. True or False

c. T or F

d. Y or N

\_\_\_\_\_\_\_ 18. A(n) \_\_\_\_\_ structure is a logical design that governs the order in which a set of statements execute.

a. function

b. iteration

c. sequence

d. control

\_\_\_\_\_\_\_ 19. Which of the following is the correct if clause to determine whether y is in the range 10

through 50?

a. if y < 10 or y > 50:

b. if y < 10 and y < 50:

c. if y > 10 and y < 50:

d. if y > 10 or y < 50:

\_\_\_\_\_\_\_ 20. What is the result of the following Boolean expression, if x equals 5, y equals 3, and z equals 8?

x < y or z > x

a. true

b. false

c. 8

d. 5

\_\_\_\_\_\_\_ 21. What is the result of the following Boolean expression, if x equals 5, y equals 3, and z equals 8?

x < y and z > x

a. true

b. false

c. 8

d. 5

\_\_\_\_\_\_\_ 22. What is the result of the following Boolean expression, if x equals 5, y equals 3, and z equals 8?

not (x < y and z > x) and y < z

 a. true

 b. false

 c. 8

 d. 5

\_\_\_\_\_\_\_ 23. Which of the following is the correct if clause to use to determine whether choice is other

than 10?

a. if choice != 10:

b. if choice != 10

c. if choice <> 10:

d. if choice <> 10

\_\_\_\_\_\_\_24. Which of the following represents an example to calculate the sum of the numbers (accumulator)?

a. total + number = total

b. number += number

c. total += number

d. total = number

\_\_\_\_\_\_\_ 25. Which of the following statements causes the interpreter to load the contents of the random module into memory?

a. load random

b. import random

c. upload random

d. download random

\_\_\_\_\_\_\_ 26. Which of the following will assign a random number in the range of 1 through 50 to the variable number?

a. random(1,50) = number

b. number = random.randint(1, 50)

c. randint(1, 50) = number

d. number = random(range(1, 50))

\_\_\_\_\_\_\_ 27. In flowcharting, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ symbol is used to represent a Boolean expression.

 a. rectangle

 b. circle

 c. ellipse

 d. diamond

\_\_\_\_\_\_\_ 28. One execution of the body of a loop is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 a. iteration

 b. step

 c. assignment

 d. rotation

\_\_\_\_\_\_\_ 29. Strings are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which means that once a string is created, it cannot be changed.

a. mutable

b. immutable

c. adjustable

d. flexible

\_\_\_\_\_\_\_ 30. The third number in string slicing brackets represents the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ value.

a. start

b. end

c. step

d. character

\_\_\_\_\_\_\_ 31. What is the first negative index in a string?

 a. 0

 b. -0

 c. -1

 d. Size of the string minus one

\_\_\_\_\_\_\_ 32. What will be assigned to new\_Name after the execution of the following code?

 team = “Delsea Crusaders”

 new\_Team = team[3:]

 a. “Del”

 b. “lsea Crusaders”

 c. “sea Crudsaders”

 d. “Dels”

\_\_\_\_\_\_\_ 33. What will be assigned to new\_Name after the execution of the following code?

 team = “Delsea Crusaders”

 new\_Team = team[:3]

 a. “Del”

 b. “ers”

 c. “sea Crudsaders”

 d. “Dels”

\_\_\_\_\_\_\_ 34. What will be assigned to the string variable even after the execution of the following code?

 num1 = “9876543210”

 num2 = num1[0:10:2]

 a. “97531”

 b. “02468”

 c. “86420”

 d. “9865320”

\_\_\_\_\_\_\_ 35. Each character in a string has a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which specifies its position in the string.

a. location

b. object

c. position

d. index

\_\_\_\_\_\_\_ 36. What will print after the execution of the following code?

string = “abcd”

print(string.upper())

a. “ABCD”

b. “abcd”

c. “Abcd”

d. “aBCD”

\_\_\_\_\_\_\_ 37. If value1 = 12.3 and value2 = 6.7, what is the output of the following command?

 print(value1 + value2)

 a. 19

 b. value1 + value2

 c. 19.0

 d. 12.3 + 6.7

\_\_\_\_\_\_\_ 38. When using the \_\_\_\_\_ operator, one or both subexpressions must be true for the compound expression to be true.

 a. Or

 b. And

 c. Not

 d. Maybe

\_\_\_\_\_\_\_ 39. When using the \_\_\_\_\_ operator, both subexpressions must be true for the compound expression to be true.

 a. Or

 b. And

 c. Not

 d. Maybe

\_\_\_\_\_\_\_ 40. In Python, the \_\_\_\_\_ symbol is used as the not-equal-to operator.

 a. ==

 b. <>

 c. !<>

 d. !=

\_\_\_\_\_\_\_ 41. In Python the \_\_\_\_\_ symbol is used as the equality operator.

 a. ==

 b. =

 c. >=

 d. <=

\_\_\_\_\_\_\_ 42. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operator determined whether a specific relationship exists between two values.

 a. logical

 b. relational

 c. decision

 d. repetition

\_\_\_\_\_\_\_ 43. The logical \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operator reverses the truth of a Boolean expression.

 a. Or

 b. And

 c. Not

 d. Maybe

\_\_\_\_\_\_\_ 44. Boolean variables are commonly used as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to indicate whether a specific condition exists.

 a. sentinel

 b. flags

 c. iterations

 d. indexing

\_\_\_\_\_\_\_ 45. What type of loop structure repeats the code a specific number of times?

 a. condition-controlled loop

 b. number-controlled loop

 c. count-controlled loop

 d. boolean-controlled loop

\_\_\_\_\_\_\_ 46. What type of loop structure repeats the code based on the value of the Boolean expression?

 a. condition-controlled loop

 b. number-controlled loop

 c. count-controlled loop

 d. boolean-controlled loop

\_\_\_\_\_\_\_ 47. What are the values that the variable num contains through the iterations of the following for loop?

for num in range(2, 9, 2):

a. 2, 3, 4, 5, 6, 7, 8, 9

b. 2, 5, 8

c. 2, 4, 6, 8

d. 1, 3, 5, 7, 9

\_\_\_\_\_\_\_ 48. What are the values that the variable num contains through the iterations of the following for loop?

for num in range(4):

 a. 1, 2, 3, 4

 b. 0, 1, 2, 3, 4

 c. 1, 2, 3

 d. 0, 1, 2, 3

\_\_\_\_\_\_\_ 49. \_\_\_\_\_ is the process of inspecting data that has been input to a program to make sure it is valid before it is used in a computation.

 a. input validation

 b. correcting data

 c. data validation

 d. correcting input

\_\_\_\_\_\_\_ 50. The while loop is known as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ loop because it tests conditions before performing an iteration.

 a. pretest

 b. posttest

 c. aftermath

 d. iteration

\_\_\_\_\_\_\_ 51. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ loop usually occurs when the programmer forgets to write code inside the loop that makes the test condition false.

 a. pretest

 b. posttest

 c. aftermath

 d. infinite

\_\_\_\_\_\_\_ 52. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ total is a sum of numbers that accumulates with each iteration of a loop.

 a. count

 b. moving

 c. running

 d. driving

\_\_\_\_\_\_\_ 53. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a special value that marks the end of a sequence of items.

 a. sentinel

 b. iteration

 c. buzzer

 d. input validation

\_\_\_\_\_\_\_ 54. What are the valid indexes for the string “New Jersey”?

 a. 0 through 9

 b. 0 through 10

 c. 0 through 11

 d. -1 through 9

\_\_\_\_\_\_\_ 55. If the start index is \_\_\_\_\_ the end index, the slicing expression will return an empty string.

 a. equal to

 b. less than

 c. greater than

 d. not equal to

\_\_\_\_\_\_\_ 56. What will be assigned to the string variable pattern after the execution of the following code?

 i = 3

 pattern = “z” \* (5\*i)

 a. “zzzzzz”

 b. “zzzzzzzzzzz”

 c. “zzzzzzzzzzzzzzz”

 d. Error: you cannot multiply strings

\_\_\_\_\_\_\_ 57. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a span of characters that are taken from within a string.

 a. splice

 b. split

 c. slice

 d. sword

\_\_\_\_\_\_\_ 58. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operator can be used to determine whether one string is contained in another string.

 a. of

 b. for

 c. equal

 d. in

\_\_\_\_\_\_\_ 59. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ method returns the list of the words in the string.

 a. splice()

 b. split()

 c. slice()

 d. sword()

\_\_\_\_\_\_\_ 60. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ method returns a copy of the string with all alphabetic letters converted to lower case.

 a. upper()

 b. lower()

 c. islower()

 d. capitalize()

Part Two: Short answer and code

1. List the order of operations and their symbols in Python.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

2. Write a **while** statement program that prints the numbers 50 to 10 by 2s.

3. Write a **for** loop statement program that prints the numbers 10 to 50 by 2s.

4. Write a program that will assign the following values to a variable **Team**, when the sport is entered.

**Sports** **Team**

Football Eagles

Baseball Phillies

Basketball 76ers

Hockey Flyers

.

5. Write a program that will have the user input a movie title. The program will remove the following letters, R, S, T, L, N from the title.