Practice\_Set 2

Consider the following assignment (for the first two questions only):

s = “Hello”

1. What does s[1] display?
2. ‘H’
3. ‘e’
4. ‘l’
5. None of the above
6. Which of the following would you use to determine the length of s?
7. s.length()
8. length(s)
9. s.len()
10. len(s)

Assume that: s = “JETHRO TULL”

1. What does s[-4:] yield?
2. ‘JETH’
3. ‘TULL’
4. ‘JETHRO ’
5. ‘T’
6. None of the above
7. Which of the following extracts the substring ‘JET’ from s?
8. s[:3]
9. s[0:3]
10. s[-11:-8]
11. s[1:3]
12. A, B and C
13. Which of the following will yield the string “JETHRO TODD”?
14. s.sub(“TULL”, “TODD”)
15. s[:-4] + “TODD”
16. s.replace(“ULL”, “ODD”)
17. Both A and B
18. Both B and C
19. What does s.find(“THX”) return?
20. 0
21. Syntax Error
22. ‘“THX” not found’
23. -1

Assume that the following statement has been executed:

input\_file = open(“readme.txt”)

1. Which of the following will give the number of words in the file?
2. len(input\_file.read())
3. len(input\_file.readlines())
4. len(input\_file.read().split())
5. length(input\_file.words())
6. input\_file.words()
7. Which of the following can be used to get the number of lines in the file?

A. len(input\_file.read())

B. len(input\_file.readlines())

C. input\_file.read().count(“\n”)

D. length(input\_file.lines())

E. Both B and C

1. Which of the following can be used to get the number of characters in the file?
2. input\_file.count(char)
3. input\_file.chr()
4. input\_file.char()
5. len(input\_file.read())
6. Suppose lst = [5, -10, 80, 45, 16]. How do you swap the first two elements of the list, lst? (You should have lst = [-10, 5, 80, 45, 16] after the swap)
7. lst[0] = lst[1]

lst[1] = lst[0]

1. lst[0], lst[1] = lst[1], lst[0]
2. temp = lst[0]

lst[0] = lst[1]

lst[1] = temp

1. Both B and C
2. What is the output of the following code?

**lst = [50, 70, 11, 13, 1, 9, 29, 31]**

**lst [1] = 3**

**del lst [3]**

**lst [3] = 37**

**lst [5] = lst [4]**

**print(lst)**

1. [50, 3, 11, 37, 9, 9, 31]
2. [3, 50, 11, 37, 29, 29, 31]
3. [3, 50, 11, 37, 29, 9, 31]
4. Syntax error

12. What will be the output after the following code is executed, assuming that the user enters **75** and **0** at the first two prompts?

**def main():**

**try:**

**total = int(input("Enter total cost of items? "))**

**num\_items = int(input("Number of items "))**

**average = total / num\_items**

**except ZeroDivisionError:**

**print('ERROR: cannot have 0 items')**

**except ValueError:**

**print('ERROR: number of items cannot be negative')**

**main()**

|  |  |
| --- | --- |
| A. | ERROR: cannot have 0 items |
| B. | ERROR: number of items can't be negative |
| C. | 0 |
| D. | Nothing; there is no print statement to display average. |

13. What will be the output after the following code is executed, assuming that the user enters **75** and **-5** at the first two prompts? (**NOTE**: Think carefully before you make your choice)

**def main():**

**try:**

**total = int(input("Enter total cost of items? "))**

**num\_items = int(input("Number of items "))**

**average = total / num\_items**

**except ZeroDivisionError:**

**print('ERROR: cannot have 0 items')**

**except ValueError:**

**print('ERROR: number of items cannot be negative')**

**main()**

|  |  |
| --- | --- |
| A. | ERROR: cannot have 0 items |
| B. | ERROR: cannot have 0 items  ERROR: number of items can't be negative |
| C. | ERROR: number of items can't be negative |
| D. | Nothing; there is no print statement to display average. The ValueError will not catch the error. |

14. The primary difference between a tuple and a list is that

|  |  |
| --- | --- |
| A. | you don't use commas to separate elements in a tuple |
| B. | a tuple can only include string elements |
| C. | a tuple cannot include lists as elements |
| D. | once a tuple is created, it cannot be changed |

Consider the following code:

capitals = {“US”:”Washington D.C.”, “India”:”New Delhi”, “Japan”:”Tokyo”}

15. The command to display the capital of Japan is:

A. capitals[“Japan”]

B. capitals.get(“Japan”, “Japan is not a valid key”)

C. capitals[2]

D. Both A and B

E. A, B, and C

16. What does the following statement do?

capitals[“India”] = “Mumbai”

A. The capital of India is now set to “Mumbai”

1. A new key called “India” with an associated value of “Mumbai” is created (i.e., there will be two keys with the name “India”)
2. You will get a syntax error
3. None of the above

17. How would you delete the entry for “US” from the dictionary?

A. del.capitals(“US”)

B. capitals.del(“US”)

C. del capitals[“US”]

D. Dict.del(capitals[“US”])

E. None of the above

18. The command to get a list of key-value tuples (e.g., [('US', 'Washington D.C.'), ('India', 'New Delhi'), ('Japan', 'Tokyo')] is:

A. capitals.getKeyValues()

B. list(capitals.items())

C. capitals.keys()

D. capitals.values()

19. Which of the following is the correct way to create an empty set called ***aSet***?

A. aSet = {}

B. aSet = new Set()

C. aSet = set()

D. aSet = Set()

E. Both A and C

Assume that you have the following statements:

a = {1,2,3,4,5,6}

b = {3,4,7,8,9}

20. What operation(s) will give you the following result?

{3, 4}

1. a.common(b)
2. a.intersection(b)
3. a.and(b)
4. a & b
5. Both B and D

21. What will the following statement return?

a.difference(b) (same as a – b)

1. {1, 2, 5, 6}
2. {1, 2}
3. {7, 8, 9}
4. None of the above

22. How can you use a and b to get the following?

{1, 2, 3, 3, 4, 4, 5, 6, 7, 8, 9}

1. a.union(b)
2. a | b
3. Both A and B

D. None of the above; this is not a valid set because it has duplicate values

23. How do you add 7 to set **a**?

A. a.insert(7)

B. a.append(7)

C. a.add(7)

D. None of the above

24. Suppose you have been asked to create a dictionary of students that uses a combination of their last name and first name as the key. The values to be stored are their age, major, and GPA. Which of the following would be correct?

1. students = { “Richards, Viv”: [24, “INSY”, 3.95], “Chappell, Ian”: [21, “MKT”, 3.16], …..}
2. students = {[“Richards”, “Viv”]: [24, “INSY”, 3.95], [“Chappell”, “Ian”]: [21, “MKT”, 3.16], ……}
3. students = {(“Richards”, “Viv”): [24, “INSY”, 3.95], (“Chappell”, “Ian”): [21, “MKT”, 3.16], ……}
4. All of the above
5. Only A and C

25. Which of the following is/are true?

A. A tuple is immutable

B. A dictionary is immutable

C. A set is immutable

D. All of the above are true

E. Only A and B are true