**แบบฝึกหัด Python**

**1 Variable & Data Structure**

**จงพิจารณาคำสั่งต่อไปนี้ว่าสามารถใช้ได้หรือไม่ ถ้าได้จงเขียนผลลัพธ์ ถ้าไม่ได้จงให้เหตุผล**

1. **numeric1 = 100 type = int, 100**
2. **numeric2 = -25 type = int, -25**
3. **numeric3 = -3.14 type = float, -3.14**
4. **numeric4 = 2.718 type = float, 2.718**
5. **numeric5 = True type = bool, true**
6. **numeric6 = False type = bool, false**
7. **numeric7 = 4 + 5j type = complex, (4+5j)**
8. **numeric8 = 1 +2j type = complex, (1+2j)**
9. **numeric8.real type = float, 1.0**
10. **numeric8.image Attribute Error: ไม่มี ‘image’ ใน ‘complex’**
11. **numeric8.imag type = float, 2.0**
12. **string1 = ‘Python’ type = str, ‘Python’**
13. **2string = ‘Hello’ Syntax Error: ผิดกฎการตั้งชื่อ**
14. **string1[0] type = str, ‘P’**
15. **string1[1] type = str, ‘y’**
16. **string1[6] Index Error: มีแค่ string index 0 - 5**
17. **string1[7] Index Error: มีแค่ string index 0 - 5**
18. **string1[-1] type = str, ‘n’**
19. **string1[-7] Index Error: มีแค่ string index (-1) – (-6)**
20. **string1[:4] type = str, ‘Pyth’**
21. **string1[:-2] type = str, ‘Pyth’**
22. **string1[3:] type = str, ‘hon’**
23. **string1[-3:] type = str, ‘hon’**
24. **string1[-1:] type = str, ‘n’**
25. **string1[2:5] type = str, ‘tho’**
26. **string1[1:6] type = str, ‘thon’**
27. **string1[3:7] type = str, ‘hon’**
28. **string1[-5:-2] type = str, ‘yth’**
29. **string1[1:-2] type = str, ‘yth’**
30. **string1[-3:5] type = str, ‘ho’**
31. **string1[-2:2] type = str, ‘ ’**
32. **string1[0] = ‘G’ Type Error: ‘str’ ไม่สนับสนุนการกำหนดรายการ**
33. **del string1[2] Type Error: ‘str’ ไม่สนับสนุนการลบรายการ**
34. **len(string) Name Error: ไม่เจอชื่อ ‘string’**
35. **‘P’ in string1 type = bool, true**
36. **‘p’ in string1 type = bool, false**
37. **‘j’ in string1 type = bool, false**
38. **list1 = [1, 2, 3, ‘a’, ‘b’, ‘c’] type = list, [1, 2, 3, 'a', 'b', 'c']**
39. **list1[0] type = int, 1**
40. **list1[1] type = int, 2**
41. **list1[6] Index Error: list index มีแค่ 0 - 5**
42. **list1[7] Index Error: list index มีแค่ 0 - 5**
43. **list1[-1] type = str, ‘c’**
44. **list1[-2] type = str, ‘b’**
45. **list1[-7] Index Error: list index มีแค่ (-1) – (-6)**
46. **list1[:4] type = list, [1, 2, 3, ‘a’]**
47. **list1[:-2] type = list, [1, 2, 3, ‘a’, ‘b’]**
48. **list1[3:] type = list, [‘a’, ‘b’, ‘c’]**
49. **list1[-3:] type = list, [‘a’, ‘b’, ‘c’]**
50. **list1[-1:] type = list, [‘c’]**
51. **list1[2:5] type = list, [3, ‘a’, ‘b’]**
52. **list1[1:6] type = list, [2, 3, ‘a’, ‘b’, ‘c’]**
53. **list1[3:7] type = list, [‘a’, ‘b’, ‘c’]**
54. **list1[-5:2] type = list, [2]**
55. **list1[1:-2] type = list, [2, 3, ‘a’, ‘b’]**
56. **list1[-3:5] type = list, [‘a’, ‘b’]**
57. **list1[-2:2] type = list, [ ]**
58. **list1[0] = ‘d’ type = list, [‘d’, 2, 3, ‘a’, ‘b’, ‘c’]**
59. **list1[-2] = [‘ก’, ’ข’, ’ค’] type = list, [‘d’, 2, 3, ‘a’, [‘ก’, ‘ข’, ‘ค’], ‘c’]**
60. **list1.append(4) type = list, [‘d’, 2, 3, ‘a’, [‘ก’, ‘ข’, ‘ค’], ‘c’, 4]**
61. **list2 = [5, 6, 7] type = list, [5, 6, 7]**
62. **list1.append(list2) type = list, [‘d’, 2, 3, ‘a’, [‘ก’, ‘ข’, ‘ค’], ‘c’, 4, [5, 6, 7]]**
63. **list1.insert(2, ’e’) type = list, ['d', 2, 'e', 3, 'a', ['ก', 'ข', 'ค'], 'c', 4, [5, 6, 7]]**
64. **list3 = [8, 9] type = list, [8, 9]**
65. **list4 = [10, 11, 12] type = list, [10, 11, 12]**
66. **list1.add(5) Attribute Error: ไม่มี ‘add’ ใน ‘list’**
67. **list1.update(7) Attribute Error: ไม่มี ‘update’ ใน ‘list’**
68. **del list1[2] type = list, ['d', 2, 3, 'a', ['ก', 'ข', 'ค'], 'c', 4, [5, 6, 7]]**
69. **del list1[-3] type = list, ['d', 2, 3, 'a', ['ก', 'ข', 'ค'], 4, [5, 6, 7]]**
70. **list1.remove(‘d’) type = list, [2, 3, 'a', ['ก', 'ข', 'ค'], 4, [5, 6, 7]]**
71. **list1.remove([‘ก’, ‘ข’, ‘ค’]) type = list, [2, 3, 'a', 4, [5, 6, 7]]**
72. **list1.clear() type = list, []**
73. **list1.append(1) type = list, [1]**

**list1.append(2) type = list, [1, 2]**

**list1.append(3) type = list, [1, 2, 3]**

**len(list1) type = int, 3**

1. **1 in list1 type = bool, True**
2. **‘a’ in list1 type = bool, False**
3. **tuple1 = (1, 2, 3, ‘a’, ‘b’, ‘c’) type = tuple, (1, 2, 3, ‘a’, ‘b’, ‘c’)**
4. **tuple1[0] type = int, 1**
5. **tuple1[1] type = int, 2**
6. **tuple1[6] Index Error: tuple index มีแค่ 0 - 5**
7. **tuple1[7] Index Error: tuple index มีแค่ 0 - 5**
8. **tuple1[-1] type = str, ‘c’**
9. **tuple1[-2] type = str, ‘b’**
10. **tuple1[-7] Index Error: tuple index มีแค่ (-1) – (-6)**
11. **tuple1[:4] type = tuple, (1, 2, 3, ‘a’)**
12. **tuple1[:-2] type = tuple, (1, 2, 3, ‘a’)**
13. **tuple1[3:] type = tuple, (‘a’, ‘b’, ‘c’)**
14. **tuple1[-3:] type = tuple, (‘a’, ‘b’, ‘c’)**
15. **tuple1[-1:] type = tuple, (‘c’)**
16. **tuple1[2:5] type = tuple, (3, ‘a’, ‘b’)**
17. **tuple1[1:6] type = tuple, (2, ‘a’, ‘b’, ‘c’)**
18. **tuple1[3:7] type = tuple, (‘a’, ‘b’, ‘c’)**
19. **tuple1[-5:-2] type = tuple, (2, 3, ‘a’)**
20. **tuple1[1:-2] type = tuple, (2, 3, ‘a’)**
21. **tuple1[-3:5] type = tuple, (‘a’, ‘b’)**
22. **tuple1[-2:2] type = tuple, ()**
23. **tuple1[0] = ‘d’ Type Error: ‘tuple’ ไม่สนับสนุนการกำหนดรายการ**
24. **tuple1[-2] = [‘ก’, ‘ข’, ‘ค’] Type Error: ‘tuple’ ไม่สนับสนุนการกำหนดรายการ**
25. **tuple1[0] = ‘d’ Type Error: ‘tuple’ ไม่สนับสนุนการกำหนดรายการ**
26. **tuple1[-2] = [‘ก’, ‘ข’, ‘ค’] Type Error: ‘tuple’ ไม่สนับสนุนการกำหนดรายการ**
27. **tuple1.append(‘d’) Attribute Error: ไม่มี ‘append’ ใน ‘tuple’**
28. **del tuple1[0] Type Error: ‘tuple’ ไม่สนับสนุนการลบรายการ**
29. **tuple1.remove(1) Attribute Error: ไม่มี ‘remove’ ใน ‘tuple’**
30. **tuple1.clear() Attribute Error: ‘clear’ ไม่มีใน ‘tuple’**
31. **len(tuple1) type = int, 6**
32. **1 in tuple1 type = bool, True**
33. **‘f’ in tuple1 type = bool, False**
34. **dict1 = {‘firstname’ : ‘Krin’, ‘lastname’ : ‘Chinprasatsak’, ‘favorite\_food’ : [‘Salmon’, ‘Bingsu’]} type = dict, {‘firstname’: ‘Krin’, ‘lastname’: ‘Chinprasatsak’, ‘favorite\_food’: [‘Salmon’, ‘Bingsu’]}**
35. **dict1[‘firstname’] type = str, ‘Krin’**
36. **dict1[‘lastname’] type = str, ‘Chinprasatsak’**
37. **dict1[0] Key Error: 0**
38. **dict1.append(1) Attribute Error: ไม่มี ‘append’ ใน ‘dict’**
39. **dict1[‘handsome\_level’] = 10 type = dict, {‘firstname’ : ‘Krin’, ‘lastname’ : ‘Chinprasatsak’, ‘favorite\_food’ : [‘Salmon’, ‘Bingsu’]} type = dict, {‘firstname’: ‘Krin’, ‘lastname’: ‘Chinprasatsak’, ‘favorite\_food’: [‘Salmon’, ‘Bingsu’], ‘handsome\_level’: 10}**
40. **dict1.add({‘beautiful\_level’: 10}) Attribute Error: ไม่มี ‘add’ ใน ‘dict’**
41. **dict1.update({‘pet\_name’: ‘Happy’, ‘favorite\_subject’: [‘Math’, ‘English’]})**

**type = dict, {‘firstname’: ‘Krin’, ‘lastname’: ‘Chinprasatsak’, ‘favorite\_food’: [‘Salmon’, ‘Bingsu’], ‘handsome\_level’: 10, ‘pet\_name’: ‘Happy’, ‘favorite\_subject’: [‘Math’, ‘English]}**

1. **dict1.remove(‘Krin’) Attribute Error: ไม่มี ‘remove’ ใน ‘dict’**
2. **dict1.clear() type = dict, { }**
3. **dict1[‘name’] = ‘Krin’ type = dict, ‘Krin’**

**len(dict1) type = int, 1**

1. **‘name’ in dict1 type = bool, True**
2. **‘lastname’ in dict1 type = bool, False**
3. **set1 = {1, 2, 3, ‘a’, ‘b’, ‘c’} type = set, {1, 2, 3, ‘a’, ‘b’, ‘c’}**
4. **set1[0] Type Error: ‘set’ object is not subscriptable**
5. **for s in set1:**

**print(s) result: 1, 2, 3, ‘a’, ‘b’, ‘c’**

1. **set1[1] = 7 Type Error: ‘set’ ไม่สนับสนุนการกำหนดรายการ**
2. **set1.append(‘d’) Attribute Error: ไม่มี ‘append’ ใน ‘set’**
3. **set1.add(‘d’) type = set, {1, 2, 3, ‘a’, ‘b’, ‘c’, ‘d’}**
4. **set1.update({4, ‘e’}) type = set, {1, 2, 3, 4, ‘a’, ‘b’, ‘c’, ‘d’, ‘e’}**
5. **del set1[0] Type Error: ‘set’ ไม่สนับสนุนการลบรายการ**
6. **set1.remove(1) type set, {2, 3, 4, ‘a’, ‘b’, ‘c’, ‘d’, ‘e’}**
7. **set1.remove(‘e’) type set, {2, 3, 4, ‘a’, ‘b’, ‘c’, ‘d’}**
8. **set1.clear() type = set, {}**
9. **set1 = {1, 2, 3} type = set, {1, 2, 3}**

**len(set1) type = int, 3**

1. **1 in set1 type = bool, True**
2. **‘a’ in set1 type = bool, False**

**กำหนดให้ set1 = {1, 2, 3, 4, 5}**

**set2 = {3, 4, 5, 6}**

1. **set1 | set2 type set, {1, 2, 3, 4, 5, 6}**
2. **set1 & set2 type set, {3, 4, 5}**
3. **set1 – set2 type set, {1, 2}**
4. **set1 ^ set2 type set, {1, 2, 6}**