Introduction to Computing – Surprise Test

Name:
Roll Number:

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Select the correct o/p of the following Python programs (without execution) and state reasons:

1.   value = 10 - - 10 - - 10 - 10
        print (value)
        i) 0,   ii) 10,   iii) 20,   iv) 30

2.   for _ in range(2**2):
                print (_**_, end = " ")
        i) 0 1 4 9,   ii) 1 4 9 16,   iii) 0 1 4 27,   iv) 1 1 4 27.

3.   a = 0o10
        if a ^ 8:
                print ("Value =", end = " ")
        print (a)
        i) 8,   ii) Value = 8,   iii) Value = 10,   iv) Value = 2.

4.   def func(n):
                if n >> 2:
                        return func(n - 1) + func(n - 2)
                else:
                        return n - 1
        print (func(8))
        i) 34,   ii) 21,   iii) 13,   iv) 8.

5.   chacha, chachi = -1, 4
        value = chacha & chachi
        print (value)
        i) -1,   ii) 1,   iii) 4,   iv) -4.

6.   bracketprint = lambda string : print ('(', string, ')')
        bracketprint ('BSDS')
        i) BSDS,   ii) (BSDS),   iii) (BSDS),   iv) Error.

7.   n = 11
        for i in range(n%2, n//2, -~0):
                print (i, end = " ")
        print ("*")
        i) 1 2 3 4 5 *,   ii) 1 2 3 4 *,   iii) 0 1 2 3 4 *,   iv) *.

8.   a, b = 5, 10
        a = a - b
        b = a + b
        a = b - a
        print (a, b)
        i) 5 10,   ii) 10 5,   iii) 5 5,   iv) 10 10.

9.   ls = [[ ] for i in range(3) for j in range(i)]
        print (ls)
        i) [[ ], [ ], [ ]],   ii) [[ ], [ ], [ ], [ ], [ ], [ ]], iii) [[ ]],   iv) [ ].

10.   if False ^ True:
                print (True ^ True, "*")
        i) *,   ii) True ^ True *,   iii) False *,   iv) True *.

11.   str = "malayalam"
        n, i = len(str), -1
        print (str[-n:i] + str[n+i:n])
        i) malay,   ii) m,   iii) malayala,   iv) malayalam.

12.   vowel = ["a", "e", "i", "o", "u"]
        for i in range(4):
                print(f"{i}:{vowel[i]}", end = " ")
        i) 0:a 1:e 2:i 3:o,   ii) {i}:a {i}:e {i}:i {i}:o,   iii) a e i o,   iv) a e i o u.

13.   ls = [1, 2, 3, 4, 5]
        revised_ls = [ls for ls in ls if ls % 2 != 0]
        print (revised_ls)
        i) [1, 2, 3, 4, 5],   ii) [ ],   iii) [2, 4],   iv) [1, 3, 5].

14.   set = {1, 2, 3, 4, 5, 5}
        set.pop()
        print (set)
        i) {2, 3, 4, 5},   ii) {2, 3, 4, 5, 5},   iii) {1, 2, 3, 4},   iv) {1, 2, 3, 4, 5}.

15.   i, j = 10, 10
        while i:
                while j:
                        if j - j // 2 * 2:
                                continue
                        i -= 2
        print (i, j)
        i) 0 10,   ii) 0 0,   iii) -2 10,   iv) Infinite loop.

16.   def swap(a = 10, b = 20):
                a, b = b, a
                print (a, b)
        swap(15)
        i) 20 15,   ii) 15 20,   iii) 15 10,   iv) 10 15.

17.   ls = [1, 2, 3, 4]
        t = tuple(ls)
        t[0] *= 2
        print (t)
        i) [1 2 3 4],   ii) [2 2 3 4],   iii) [2, 4, 6, 8],   iv) Error.

18.   ls = [1, 2, 3]
        print (ls * 2)
        i) [1, 2, 3],   ii) [2, 4, 6],   iii) [1, 2, 3, 1, 2, 3],   iv) None.

19.   set1 = {1, 2, 3, 4, 5}
        set2 = {2, 4, 6}
        print (set1 ^ set2)
        i) {2, 4},   ii) {1, 3, 5, 6},   iii) {1, 2, 3, 4, 5, 6},   iv) { }.

20.   def func(a, b):
                return b if a == 0 else func(b % a, a)
        print (func(20, 50))
        i) 20,   ii) 50,   iii) 10,   iv) 0.