**Python MCQ 🡺 Python MCQ - allindiaexams.in**

<http://www.allindiaexams.in/engineering/cse/python-mcq/variable-names-operators-data-numeric-types>

**A] variable-names-operators-data-numeric-types 🡺**

<http://www.allindiaexams.in/engineering/cse/python-mcq//variable-names-operators-data-numeric-types>

1. What is answer of this expression, 22 % 3 is?

A. 7 B. 1 C. 0 D. 5

Answer: Option B

Explanation: Modulus operator gives remainder. So, 22%3 gives the remainder, that is, 1.

2. What is the output of this expression, 3\*1\*\*3?

A. 27 B. 9 C. 3 D. 1

Answer: Option C

Explanation: First this expression will solve 1\*\*3 because exponential have higher precedence than multiplication, so 1\*\*3 = 1 and 3\*1 = 3. Final answer is 3.

3. Which of the following will run without errors ?

A. round(45.8) B. round(6352.898,2,5) C. round() D. round(7463.123,2,1)

Answer: Option A

Explanation: Execute help(round) in the shell to get details of the parameters that are passed into the round function.

4. What dataype is the object below ?

L = [1, 23, ‘hello’, 1].

A. list B. dictionary C. array D. tuple

Answer: Option A

Explanation: List datatype can store any values within it.

5. What does --------- 5 evaluate to?

A. +5 B. -11 C. +11 D. -5

Answer: Option A

Explanation: x is equivalent to -(x+1).

6. What is the result of round(0.5) – round(-0.5)?

A. 1.0 B. 2.0 C. 0.0 D. None of the mentioned

Answer: Option B

Explanation: Python rounds off numbers away from 0 when the number to be rounded off is exactly halfway through. round(0.5) is 1 and round (-0.5) is -1.

7. What is the maximum possible length of an identifier?

A. 31 charactersB. 63 charactersC. 79 charactersD. none of the mentioned

Answer: Option D

Explanation: Identifiers can be of any length.

8. All keywords in Python are in

A. lower case B. UPPER CASE C. Capitalized D. None of the mentioned

Answer: Option D

Explanation: True, False and None are capitalized while the others are in lower case.

9. Which of the following is an invalid statement?

A. abc = 1,000,000

B. a b c = 1000 2000 3000

C. a,b,c = 1000, 2000, 3000

D. a\_b\_c = 1,000,000

Answer: Option B

Explanation: Spaces are not allowed in variable names.

10. Which of these in not a core datatype?

A. Lists B. Dictionary C. Tuples D. Class

Answer: Option D

Explanation: Class is a user defined datatype.

**B]** [**Precedence and Associativity, Bitwise & Boolean**](http://www.allindiaexams.in/engineering/cse/python-mcq/precedence-associativity-bitwise-boolean) **🡺**

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1. What is the result of the expression if x=15 and y=12:

A. b1101 B. 0b1101 C. 12 D. 1101

Answer: Option C

Explanation: The symbol ‘&’ represents bitwise AND. This gives 1 if both the bits are equal to 1, else it gives 0. The binary form of 15 is 1111 and that of 12 is 1100. Hence on performing the bitwise AND operation, we get 1100, which is equal to 12.

2. Which of the following represents the bitwise XOR operator?

A. & B. ^ C. | D. !

Answer: Option B

Explanation: The ^ operator represent bitwise XOR operation. &: bitwise AND, | : bitwise OR and ! represents bitwise NOT.

3. What is the value of this expression:

bin(10-2)+bin(12^4)

A. 0b10000 B. 0b10001000 C. 0b1000b1000 D. 0b10000b1000

Answer: Option D

Explanation: The output of bin(10-2)= 0b1000 and that of bin(12^4) is ob1000. Hence the output of the above expression is: 0b10000b1000.

4. What is the two’s complement of -44?

A. 1011011 B. 11010100 C. 11101011 D. 10110011

Answer: Option B

Explanation: The binary form of -44 is 00101100. The one’s complement of this value is 11010011. On adding one to this we get: 11010100 (two’s complement).

5. What is the output of the code shown below?

not(3>4)

not(1&1)

A. TrueTrue B. TrueFalse C. FalseTrue D. FalseFalse

Answer: Option B

Explanation: The function not returns true if the argument amounts to false, and false if the argument amounts to true. Hence the first function returns false, and the second function returns false.

6. What is the output of the code shown below?

class Truth:

pass

x=Truth()

bool(x)

A. pass B. true C. false D. error

Answer: Option B

Explanation: If the truth method is not defined, the object is considered true. Hence the output of the code shown above is true.

7. What is the value of the following expression?

2+4.00, 2\*\*4.0

A. (6.0, 16.0) B. (6.00, 16.00) C. (6, 16) D. (6.00, 16.0)

Answer: Option A

Explanation: The result of the expression shown above is (6.0, 16.0). This is because the result is automatically rounded off to one decimal place.

8. What is the value of x if:

x = int(43.55+2/2)

A. 43 B. 44 C. 22 D. 23

Answer: Option B

Explanation: The expression shown above is an example of explicit conversion. It is evaluated as int(43.55+1) = int(44.55) = 44. Hence the result of this expression is 44.

9. What is the value of the expression:

4+2\*\*5//10

A. 3 B. 7 C. 77 D. 0

Answer: Option B

Explanation: The order of precedence is: \*\*, //, +. The expression 4+2\*\*5//10 is evaluated as 4+32//10, which is equal to 4+3 = 7. Hence the result of the expression shown above is 7.

10. What is the value of the following expression:

24//6%3, 24//4//2

A. (1,3) B. (0,3) C. (1,0) D. (3,1)

Answer: Option A

Explanation:The expressions are evaluated as: 4%3 and 6//2 respectively. This results in the answer (1,3). This is because the associativity of both of the expressions shown above is left to right.

**C]** [**Formatting & Decorators**](http://www.allindiaexams.in/engineering/cse/python-mcq/formatting-decorators) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/formatting-decorators**](http://www.allindiaexams.in/engineering/cse/python-mcq/formatting-decorators)

1. The output of the two codes shown below is the same. State whether this statement is true or false.

bin((2\*\*16)-1)

'{}'.format(bin((2\*\*16)-1))

A. True B. False C. Both I and II D. Only I

Answer: Option A

Explanation: The output of both of the codes shown above is ‘0b1111111111111111’. Hence the statement is true.

2. What is the output of the code shown below?

'The {} side {1} {2}'.format('bright', 'of', 'life')

A. Error B. ‘The bright side of life’ C. ‘The {bright} side {of} {life}’ D. No output

Answer: Option A

Explanation: The code shown above results in an error. This is because we have switched from automatic field numbering to manual field numbering, that is, from {} to {1}. Hence this code results in an error.

3. In the code shown below, which function is the decorator?

def mk(x):

def mk1():

print("Decorated")

x()

return mk1

def mk2():

print("Ordinary")

p = mk(mk2)

p()

A. p() B. mk() C. mk1() D. mk2()

Answer: Option B

Explanation: In the code shown above, the function mk() is the decorator. The function which is getting decorated is mk2(). The return function is given the name p().

4. What is the output of the code shown below?

def f(x):

def f1(a, b):

print("hello")

if b==0:

print("NO")

return

return f(a, b)

return f1

@f

def f(a, b):

return a%b

f(4,0)

A. helloNO B. helloZero Division Error C. NO D. hello

Answer: Option A

Explanation: In the code shown above, we have used a decorator in order to avoid the Zero Division Error. Hence the output of this code is: hello NO

5. What is the output of the code shown below?

def mk(x):

def mk1():

print("Decorated")

x()

return mk1

def mk2():

print("Ordinary")

p = mk(mk2)

p()

A. DecoratedDecorated B. OrdinaryOrdinary C. OrdinaryDecorated D. DecoratedOrdinary

Answer: Option D

Explanation: The code shown above first prints the word “Decorated” and then “ordinary”. Hence the output of this code is:

Decorated

Ordinary

6. What is the result of the expression shown below if x=56.236?

print("%.2f"%x)

A. 56.00 B. 56.24 C. 56.23 D. 0056.236

Answer: Option B

Explanation: The expression shown above rounds off the given number to the number of decimal places specified. Since the expression given specifies rounding off to two decimal places, the output of this expression will be 56.24. Had the value been x=56.234 (last digit being any number less than 5), the output would have been 56.23.

7. Which of the following formatting options can be used in order to add ‘n’ blank spaces after a given string ‘S’?

A. print(“-ns”%S) B. print(“-ns”%S) C. print(“%ns”%S) D. print(“%-ns”%S)

Answer: Option D

Explanation: In order to add ‘n’ blank spaces after a given string ‘S’, we use the formatting option:(“%-ns”%S).

8. What is the output of the code shown?

x=3.3456789

'%f | %e | %g' %(x, x, x)

A. Error

B. ‘3.3456789 | 3.3456789+00 | 3.345678’

C. ‘3.345678 | 3.345678e+0 | 3.345678’

D. ‘3.345679 | 3.345679e+00 | 3.34568’

Answer: Option D

Explanation: The %f %e and %g format specifiers represent floating point numbers in different ways. %e and %E are the same, except that the exponent is in lowercase. %g chooses the format by number content. Hence the output of this code is: ‘3.345679 | 3.345679e+00 | 3.34568’.

9. The output of the code shown below is:

s='{0}, {1}, and {2}'

s.format('hello', 'good', 'morning')

A. ‘hello good and morning’

B. ‘hello, good, morning’

C. ‘hello, good, and morning’

D. Error

Answer: Option C

Explanation: Within the subject string, curly braces designate substitution targets and arguments to be inserted either by position or keyword. Hence the output of the code shown above:’hello, good,and morning’.

10. What is the output of the code shown below?

def d(f):

def n(\*args):

return '$' + str(f(\*args))

return n

@d

def p(a, t):

return a + a\*t

print(p(100,0))

A. 100 B. $100 C. $0 D. 0

Answer: Option B

Explanation: In the code shown above, the decorator helps us to prefix the dollar sign along with the value. Since the second argument is zero, the output of the code is: $100.

**D]** [**While and For Loops**](http://www.allindiaexams.in/engineering/cse/python-mcq/while-for-loops) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/while-for-loops**](http://www.allindiaexams.in/engineering/cse/python-mcq/while-for-loops)

1. What is the output of the following?

i = 2

while True:

if i%3 == 0:

break

print(i)

i += 2

A. 2 4 6 8 10 … B. 2 4 C. 2 3 D. error

Answer: Option B

Explanation: The numbers 2 and 4 are printed. The next value of i is 6 which is divisible by 3 and hence control exits the loop.

2. What is the output of the following?

x = "abcdef"

i = "a"

while i in x:

x = x[:-1]

print(i, end = " ")

A. i i i i i I B. a a a a a a C. a a a a a D. none of the mentioned

Answer: Option B

Explanation: The string x is being shortened by one charater in each iteration.

3. What is the output of the following?

x = "abcdef"

i = "i"

while i in x:

print(i, end=" ")

A. no output B. i i i i i i … C. a b c d e f D. abcdef

Answer: Option A

Explanation: “i” is not in “abcdef”.

4. What is the output of the following?

x = 'abcd'

for i in x:

print(i.upper())

A. a b c d B. A B C D C. a B C D D. error

Answer: Option B

Explanation: The instance of the string returned by upper() is being printed.

5. What is the output of the following?

x = 'abcd'

for i in range(len(x)):

x[i].upper()

print (x)

A. abcd B. ABCD C. error D. none of the mentioned

Answer: Option A

Explanation: Changes do not happen in-place, rather a new instance of the string is returned.

6. What is the output of the following?

d = {0: 'a', 1: 'b', 2: 'c'}

for x in d.values():

print(x)

A. 0 1 2 B. a b c C. 0 a 1 b 2 c D. none of the mentioned

Answer: Option B

Explanation: Loops over the values.

7. What is the output of the following?

d = {0: 'a', 1: 'b', 2: 'c'}

for x in d.keys():

print(d[x])

A. 0 1 2 B. a b c C. 0 a 1 b 2 c D. none of the mentioned

Answer: Option B

Explanation: Loops over the keys and prints the values.

8. What is the output of the following?

for i in range(float('inf')):

print (i)

A. 0.0 0.1 0.2 0.3 … B. 0 1 2 3 … C. 0.0 1.0 2.0 3.0 … D. none of the mentioned

Answer: Option D

Explanation: Error, objects of type float cannot be interpreted as an integer.

9. What is the output of the following?

string = "my name is x"

for i in string.split():

print (i, end=", ")

A. m, y, , n, a, m, e, , i, s, , x,

B. m, y, , n, a, m, e, , i, s, , x

C. my, name, is, x

D. error

Answer: Option C

Explanation: Variable i takes the value of one word at a time.

10. What is the output of the following?

a = [0, 1, 2, 3]

for a[0] in a:

print(a[0])

A. 0 1 2 3 B. 0 1 2 2 C. 3 3 3 3 D. error

Answer: Option A

Explanation: The value of a[0] changes in each iteration. Since the first value that it takes is itself, there is no visible error in the current example.

**E]** [**Python Strings**](http://www.allindiaexams.in/engineering/cse/python-mcq/python-strings) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/python-strings**](http://www.allindiaexams.in/engineering/cse/python-mcq/python-strings)

1. What is the output when following code is executed ?

print r"\nhello"

The output is

A. a new line and hello

B. \nhello

C. the letter r and then hello

D. Error

Answer: Option B

Explanation: When prefixed with the letter ‘r’ or ‘R’ a string literal becomes a raw string and the escape sequences such as \n are not converted.

2. What is the output of the following code ?

example = "snow world"

example[3] = 's'

print example

A. snow B. snow world C. Error D. snos world

Answer: Option C

Explanation: Strings cannot be modified.

3. What is the output of “hello”+1+2+3 ?

A. hello123 B. hello C. Error D. hello6

Answer: Option C

Explanation: Cannot concantenate str and int objects.

4. Suppose i is 5 and j is 4, i + j is same as

A. i.\_\_add(j) B. i.\_\_add\_\_(j) C. i.\_\_Add(j) D. i.\_\_ADD(j)

Answer: Option B

Explanation: Execute in shell to verify.

5. What is the output of the following?

print('\*', "abcdef".center(7), '\*')

A. \* abcdef \* B. \* abcdef \* C. \*abcdef \* D. \* abcdef\*

Answer: Option B

Explanation: Padding is done towards the left-hand-side first when the final string is of odd length. Extra spaces are present since we haven’t overridden the value of sep.

6. What is the output of the following?

print("xyyzxyzxzxyy".count('xyy', 2, 11))

A. 2 B. 0 C. 1 D. Error

Answer: Option B

Explanation: Counts the number of times the sub-string ‘xyy’ is present in the given string, starting from position 2 and ending at position 11.

7. What is the output of the following?

print("Hello {1} and {0}".format('bin', 'foo'))

A. Hello foo and bin B. Hello bin and foo C. Error D. None of the mentioned

Answer: Option A

Explanation: The numbers 0 and 1 represent the position at which the strings are present.

8. What is the output of the following?

print('The sum of {0} and {1} is {2}'.format(2, 10, 12))

A. The sum of 2 and 10 is 12 B. Error C. The sum of 0 and 1 is 2 D. None of the mentioned

Answer: Option A

Explanation: The arguments passed to the function format can be integers also.

9. What is the output of the following?

print('ab'.isalpha())

A. True B. False C. None D. Error

Answer: Option A

Explanation: The string has only letters.

10. What is the output of the following?

print('1.1'.isnumeric())

A. True B. False C. None D. Error

Answer: Option B

Explanation: The character . is not a numeric character.

11. What is the output of the following?

print('a'.maketrans('ABC', '123'))

A. {97: 49, 98: 50, 99: 51} B. {65: 49, 66: 50, 67: 51} C. {97: 49} D. 1

Answer: Option A

Explanation: maketrans() is a static method so it’s behaviour does not depend on the object from which it is being called.

12. What is the output of the following?

print('xyyxyyxyxyxxy'.replace('xy', '12', 100))

A. xyyxyyxyxyxxy

B. 12y12y1212x12

C. none of the mentioned

D. error

Answer: Option B

Explanation: The first 100 occurences of the given substring are replaced.

13. What is the output of the following?

print('abcd'.translate({'a': '1', 'b': '2', 'c': '3', 'd': '4'}))

A. abcd B. 1234 C. error D. none of the mentioned

Answer: Option A

Explanation: The function translate expects a dictionary of integers. Use maketrans() instead of doing the above.

**F]** [**Lists & List Comprehension**](http://www.allindiaexams.in/engineering/cse/python-mcq/lists-list-comprehension) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/lists-list-comprehension**](http://www.allindiaexams.in/engineering/cse/python-mcq/lists-list-comprehension)

1. What is the output of the code shown below?

import math

[str(round(math.pi)) for i in range (1, 6)]

A. [‘3’, ‘3’, ‘3’, ‘3’, ‘3’, ‘3’]

B. [‘3.1’, ‘3.14’, ‘3.142’, ‘3.1416’, ‘3.14159’, ‘3.141582’]

C. [‘3’, ‘3’, ‘3’, ‘3’, ‘3’]

D. [‘3.1’, ‘3.14’, ‘3.142’, ‘3.1416’, ‘3.14159’]

Answer: Option C

Explanation: The list comprehension shown above rounds off pi(3.141) and returns its value, that is 3. This is done 5 times. Hence the output is: [‘3’, ‘3’, ‘3’, ‘3’, ‘3’].

2. What is the output of the code shown below?

t=32.00

[round((x-32)\*5/9) for x in t]

A. [0] B. 0 C. [0.00] D. Error

Answer: Option D

Explanation: The value of t in the code shown above is equal to 32.00, which is a floating point value. ‘Float’ objects are not iterable. Hence the code results in an error.

3. What is the output of the following?

print([i.lower() for i in "HELLO"])

A. [‘h’, ‘e’, ‘l’, ‘l’, ‘o’]. B. ‘hello’ C. [‘hello’]. D. hello

Answer: Option A

Explanation: We are iterating over each letter in the string.

4. Suppose list1 is [3, 5, 25, 1, 3], what is min(list1) ?

A. 3 B. 5 C. 25 D. 1

Answer: Option D

5. Suppose list1 is [1, 3, 2], What is list1 \* 2 ?

A. [2, 6, 4]. B. [1, 3, 2, 1, 3] C. [1, 3, 2, 1, 3, 2] . D. [1, 3, 2, 3, 2, 1]

Answer: Option C

Explanation: Execute in the shell and verify.

6. What is the output when the following code is executed ?

"Welcome to Python".split()

A. [“Welcome”, “to”, “Python”]. B. (“Welcome”, “to”, “Python”)

C. {“Welcome”, “to”, “Python”} D. “Welcome”, “to”, “Python”

Answer: Option A

Explanation: split() function returns the elements in a list.

7. What will be the output?

names1 = ['Amir', 'Bala', 'Charlie']

names2 = [name.lower() for name in names1]

print(names2[2][0])

A. None B. a C. b D. c

Answer: Option D

Explanation: List Comprehension are a shorthand for creating new lists.

8. What will be the output?

values = [[3, 4, 5, 1], [33, 6, 1, 2]]

v = values[0][0]

for lst in values:

for element in lst:

if v > element:

v = element

print(v)

A. 1 B. 3 C. 5 D. 6

Answer: Option A

Explanation: Execute in the shell to verify.

9. What is the output of the following code?

import copy

a=[10,23,56,[78]]

b=copy.deepcopy(a)

a[3][0]=95

a[1]=34

print(b)

A. [10,34,56,[95]]. B. [10,23,56,[78]]. C. [10,23,56,[95]]. D. [10,34,56,[78]].

Answer: Option B

Explanation: The above copy is deepcopy. Any change made in the original list isn’t reflected.

10. What is the output of the following piece of code?

a=list((45,)\*4)

print((45)\*4)

print(a)

A. 180[(45),(45),(45),(45)]. B. (45,45,45,45).[45,45,45,45].

C. 180[45,45,45,45]. D. Syntax error

Answer: Option C

Explanation: (45) is an int while (45,) is a tuple of one element. Thus when a tuple is multiplied, it created references of itself which is later converted to a list.

11. What is the output of the code shown below?

A = [[1, 2, 3],

[4, 5, 6],

[7, 8, 9]]

[A[i][len(A)-1-i] for i in range(len(A))]

A. [1, 5, 9] B. [4, 5, 6] C. [3, 5, 7] D. [2, 5, 8]

Answer: Option C

Explanation: This expression scales the common index to fetch A[0][2], A[1][1], etc. We assume the matrix has the same number of rows and columns.

**G]** [**Tuples and Sets**](http://www.allindiaexams.in/engineering/cse/python-mcq/tuples-sets) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/tuples-sets**](http://www.allindiaexams.in/engineering/cse/python-mcq/tuples-sets)

1. Which of the following statements is used to create an empty set?

A. { } B. set() C. [ ]. D. ( )

Answer: Option B

Explanation: { } creates a dictionary not a set. Only set() creates an empty set.

2. What is the output of the following piece of code when executed in the python shell?

a={1,2,3}

a.intersection\_update({2,3,4,5})

a

A. {2,3}

B. Error, duplicate item present in list

C. Error, no method called intersection\_update for set data type

D. {1,4,5}

Answer: Option A

Explanation: The method intersection\_update returns a set which is an intersection of both the sets.

3. Which of the following lines of code will result in an error?

A. s={abs} B. s={4, ‘abc’, (1,2)} C. s={2, 2.2, 3, ‘xyz’} D. s={san}

Answer: Option D

Explanation: The line: s={san} will result in an error because ‘san’ is not defined. The line s={abs} does not result in an error because abs is a built-in function. The other sets shown do not result in an error because all the items are hashable.

4. What is the output of the code shown below?

s=set([1, 2, 3])

s.union([4, 5])

s|([4, 5])

A. {1, 2, 3, 4, 5}{1, 2, 3, 4, 5} B. Error{1, 2, 3, 4, 5}

C. {1, 2, 3, 4, 5}Error D. ErrorError

Answer: Option C

Explanation: The first function in the code shown above returns the set {1, 2, 3, 4, 5}. This is because the method of the function union allows any iterable. However the second function results in an error because f unsupported data type, that is list and set.

5. What is the output of the line of code shown below, if s1= {1, 2, 3}?

s1.issubset(s1)

A. True B. Error C. No output D. False

Answer: Option A

Explanation: Every set is a subset of itself and hence the output of this line of code is true.

6. Suppose t = (1, 2, 4, 3), which of the following is incorrect?

A. print(t[3]) B. t[3] = 45 C. print(max(t)) D. print(len(t))

Answer: Option B

Explanation: Values cannot be modified in the case of tuple, that is, tuple is immutable.

7. What will be the output?

d = {"john":40, "peter":45}

d["john"]

A. 40 B. 45 C. “john” D. “peter”

Answer: Option A

Explanation: Execute in the shell to verify.

8. What is the output of the following piece of code when executed in Python shell?

a=("Check")\*3

a

A. (‘Check’,’Check’,’Check’)

B. \* Operator not valid for tuples

C. (‘CheckCheckCheck’)

D. Syntax error

Answer: Option C

Explanation: Here (“Check”) is a string not a tuple because there is no comma after the element.

9. Is the following piece of code valid?

a=2,3,4,5

a

A. Yes, 2 is printed B. Yes, [2,3,4,5] is printed

C. No, too many values to unpack D. Yes, (2,3,4,5) is printed

Answer: Option D

Explanation: A tuple needn’t be enclosed in parenthesis.

10. What is the output of the following code?

a,b=6,7

a,b=b,a

a,b

A. (6,7) B. Invalid syntax C. (7,6) D. Nothing is printed

Answer: Option C

Explanation: The above piece of code illustrates the unpacking of variables.

**H]** [**Dictionary, Functions and Built-in Functions**](http://www.allindiaexams.in/engineering/cse/python-mcq/dictionary-builtin-functions) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/dictionary-builtin-functions**](http://www.allindiaexams.in/engineering/cse/python-mcq/dictionary-builtin-functions)

1. What is the output of the expression?

round(4.5676,2)?

A. 4.5 B. 4.6 C. 4.57 D. 4.56

Answer: Option C

Explanation: The function round is used to round off the given decimal number to the specified decimal places. In this case the number should be rounded off to two decimal places. Hence the output will be 4.57.

2. What is the output of the functions shown below?

divmod(10.5,5)

divmod(2.4,1.2)

A. (2.00, 0.50)(2.00, 0.00) B. (2, 0.5)(2, 0)

C. (2.0, 0.5)(2.0, 0.0) D. (2, 0.5)(2)

Answer: Option C

Explanation: See python documentation for the function divmod.

3. What is the output of the function shown below?

hex(15)

A. f B. 0xF C. 0Xf D. 0xf

Answer: Option D

Explanation: The function hex() is used to convert the given argument into its hexadecimal representation, in lower case. Hence the output of the function hex(15) is 0xf.

4. What is the output?

d = {"john":40, "peter":45}

d["john"]

A. 40 B. 45 C. “john” D. “peter”

Answer: Option A

Explanation: Execute in the shell to verify.

5. What is the output of the following piece of code?

a={1:"A",2:"B",3:"C"}

print(a.get(1,4))

A. 1 B. A C. 4 D. Invalid syntax for get method

Answer: Option B

Explanation: The get() method returns the value of the key if the key is present in the dictionary and the default value(second parameter) if the key isn’t present in the dictionary.

6. What is the output of the following snippet of code?

total={}

def insert(items):

if items in total:

total[items] += 1

else:

total[items] = 1

insert('Apple')

insert('Ball')

insert('Apple')

print (len(total))

A. 3 B. 1 C. 2 D. 0

Answer: Option C

Explanation: The insert() function counts the number of occurrences of the item being inserted into the dictionary. There are only 2 keys present since the key ‘Apple’ is repeated. Thus, the length of the dictionary is 2.

7. What is the output of the following code?

a={}

a[2]=1

a[1]=[2,3,4]

print(a[1][1])

A. [2,3,4]. B. 3 C. 2 D. An exception is thrown

Answer: Option B

Explanation: Now, a={1:[2,3,4],2:1} . a[1][1] refers to second element having key 1.

8. What is the output of the below program?

x = 50

def func():

    global x

    print('x is', x)

    x = 2

    print('Changed global x to', x)

func()

print('Value of x is', x)

[A.](javascript:%20void(0))

x is 50

Changed global x to 2

Value of x is 50

[B.](javascript:%20void(0))

x is 50

Changed global x to 2

Value of x is 2

[C.](javascript:%20void(0))

x is 50

Changed global x to 50

Value of x is 50

[D.](javascript:%20void(0)) None of the mentioned

Answer: Option B

Explanation: The global statement is used to declare that x is a global variable – hence, when we assign a value to x inside the function, that change is reflected when we use the value of x in the main block.

9. What is called when a function is defined inside a class?

A. Module B. Class C. Another function D. Method

Answer: Option D

10. What is called when a function is defined inside a class?

A. Module B. Class C. Another function D. Method

Answer: Option D

11. What is the output of below program?

def f(x, y, z): return x + y + z

f(2, 30, 400)

A. 432 B. 24000 C. 430 D. No output

Answer: Option A

12. What is the output of the following piece of code?

def a(b):

b = b + [5]

c = [1, 2, 3, 4]

a(c)

print(len(c))

A. 4 B. 5 C. 1 D. An exception is thrown

Answer: Option B

Explanation: Since a list is mutable, any change made in the list in the function is reflected outside the function.

**I]** [**Argument Passing, and Recursion**](http://www.allindiaexams.in/engineering/cse/python-mcq/argument-passing-and-recursion) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/argument-passing-and-recursion**](http://www.allindiaexams.in/engineering/cse/python-mcq/argument-passing-and-recursion)

1. How are keyword arguments specified in the function heading?

A. one star followed by a valid identifier

B. one underscore followed by a valid identifier

C. two stars followed by a valid identifier

D. two underscores followed by a valid identifier

Answer: Option C

2. How many keyword arguments can be passed to a function in a single function call?

A. zero B. one C. zero or more D. one or more

Answer: Option C

Explanation: zero keyword arguments may be passed if all the arguments have default values.

3. Which module in the python standard library parses options received from the command line?

A. getopt B. os C. getarg D. main

Answer: Option A

Explanation: getopt parses options received from the command line.

4. What is the type of sys.argv?

A. set B. list C. tuple D. string

Answer: Option B

Explanation: It is a list of elements.

5. What is the output of the code shown below?

def f1():

x=100

print(x)

x=+1

f1()

A. Error B. 100 C. 101 D. 99

Answer: Option B

Explanation: The variable x is a local variable. It is first printed and then modified. Hence the output of this code is 100.

6. On assigning a value to a variable inside a function, it automatically becomes a global variable. State whether true or false.

A. True B. False C. Error D. Not mentioned

Answer: Option B

Explanation: On assigning a value to a variable inside a function, t automatically becomes a local variable. Hence the above statement is false.

7. What happens if a local variable exists with the same name as the global variable you want to access?

A. Error B. The local variable is shadowed

C. Undefined behavior D. The global variable is shadowed

Answer: Option D

Explanation: If a local variable exists with the same name as the local variable that you want to access, then the global variable is shadowed. That is, preference is given to the local variable.

8. Which of these is false about recursion?

A. Recursive function can be replaced by a non-recursive function

B. Recursive functions usually take more memory space than non-recursive function

C. Recursive functions run faster than non-recursive function

D. Recursion makes programs easier to understand

Answer: Option C

Explanation: The speed of a program using recursion is slower than the speed of its non-recursive equivalent.

9. What is the output of the code shown below?

l1=[1, 2, 3, [4]]

l2=list(l1)

id(l1)==id(l2)

A. True B. False C. Error D. Address of l1

**J]** [**Mapping Functions and Modules**](http://www.allindiaexams.in/engineering/cse/python-mcq/mapping-functions-modules) **🡺**

[**http://www.allindiaexams.in/engineering/cse/python-mcq/mapping-functions-modules**](http://www.allindiaexams.in/engineering/cse/python-mcq/mapping-functions-modules)

1. What is the output of the code shown below if the system date is 18th August, 2016?

tday=datetime.date.today()

print(tday.month())

A. August B. Aug C. 08 D. 8

Answer: Option D

Explanation: The code shown above prints the month number from the system date. Therefor the output will be 8 if the system date is 18th August, 2016.

2. What is the output of the following code, if the time module has already been imported?

def num(m):

t1 = time.time()

for i in range(0,m):

print(i)

t2 = time.time()

print(str(t2-t1))

    num(3)

[A.](javascript:%20void(0)) 123The time taken for the execution of the code

[B.](javascript:%20void(0)) 3The time taken for the execution of the code

[C.](javascript:%20void(0)) 123UTC time

[D.](javascript:%20void(0)) 3UTC time

Answer: Option A

Explanation: The code shown above will return the numbers 1, 2, 3, followed by the time taken in the execution of the code. Hence option (a) shows the output correctly.

3. What is the output of the code shown below?

l=[-2, 4]

m=map(lambda x:x\*2, l)

print(m)

A. [-4, 16] B. Address of m C. Error D. -416

Answer: Option B

Explanation: The code shown above returns the address of m. Had we used the statement: print(list(m)), the output would have been: [-4, 16].

4. What is the output of the following?

def to\_upper(k):

k.upper()

x = ['ab', 'cd']

print(list(map(to\_upper, x)))

A. [‘AB’, ‘CD’]. B. [‘ab’, ‘cd’]. C. none of the mentioned D. error

Answer: Option C

Explanation: A list of Nones is printed as to\_upper() returns None.

5. What is the output of the following?

x = [12, 34]

print(len(''.join(list(map(str, x)))))

A. 4 B. 5 C. 6 D. Error

Answer: Option A

Explanation: Each number is mapped into a string of length 2.

6. What is the output of the following?

x = abcd

print(list(map(list, x)))

A. [‘a’, ‘b’, ‘c’, ‘d’]. B. [‘abcd’]. C. [[‘a’], [‘b’], [‘c’], [‘d’]]. D. none of the mentioned

Answer: Option D

Explanation: NameError, we have not defined abcd.

7. Is the output of the function abs() the same as that of the function math.fabs()?

A. sometimes B. always C. never D. none of the mentioned

Answer: Option A

Explanation: math.fabs() always returns a float and does not work with complex numbers whereas the return type of abs() is determined by the type of value that is passed to it.

8. What is returned by math.isfinite(float(‘nan’))?

A. True B. False C. None D. error

Answer: Option B

Explanation: float(‘nan’) is not a finite number.

9. What is the default base used when math.log(x) is found?

A. e B. 10 C. 2 D. none of the mentioned

Answer: Option A

Explanation: The natural log of x is returned by default.

10. What does os.getlogin() return?

A. name of the current user logged in B. name of the superuser

C. gets a form to login as a different user D. all of the above

Answer: Option A

Explanation: It returns the name of the user who is currently logged in and is running the script.

11. What is the output of the line of code shown below?

pickle.HIGHEST\_PROTOCOL

A. 4 B. 5 C. 3 D. 6

Answer: Option A

Explanation: There are five protocol versions available of the pickle module, namely, 0, 1, 2, 3 and 4. In the code shown above, the highest protocol version is returned, that is, 4.

12. Which of the following is true about top-down design process?

A. The details of a program design are addressed before the overall design

B. Only the details of the program are addressed

C. The overall design of the program is addressed before the details

D. Only the design of the program is addressed

Answer: Option C

Explanation: Top-down design is an approach for deriving a modular design in which the overall design.

13. What is the output of the function shown below (random module has already been imported)?

random.choice('sun')

A. sun B. u C. either s, u or n D. error

Answer: Option C

Explanation: The above function works with alphabets just as it does with numbers. The output of thes expression will be either s, u or n.

14. Which of the following will not be returned by random.choice(“1 ,”)?

A. 1 B. (space) C. , D. none of the mentioned

Answer: Option D

Explanation: Any of the characters present in the string may be returned.

15. What is the output of this code?

import sys

eval(sys.stdin.readline())

"India"

A. India5 B. India C. ‘India\n’ D. ‘India’

Answer: Option D

Explanation: The function shown above evaluates the input into a string. Hence if the input entered is enclosed in double quotes, the output will be enclosed in single quotes. Therefore, the output of this code is ‘India’

16. Which of the following functions does not accept any arguments?

A. position B. fillcolor C. goto D. setheading()

Answer: Option A

Explanation: The functions fillcolor(), goto() and setheading() accept arguments, whereas the function position() does not accept any arguments. The function position() returns the current position of the turtle.

17. What is the output of the following code?

import turtle

t=turtle.Pen()

t.right(90)

t.forward(100)

t.heading()

A. 0.0 B. 90.0 C. 270.0 D. 360.0

Answer: Option C

Explanation: The output of the code shown above will be 270.0. The function heading() returns the heading of the turtle, a value in degrees, counter-clockwise from the horizontal right. The output shape of this code is a straight line pointing downwards.

18. The output of the code shown is similar to the alphabet \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

import turtle

t=turtle.Pen()

t1=turtle.Pen()

t2=turtle.Pen()

t.forward(100)

t1.forward(100)

t2.forward(100)

t1.left(90)

t1.forward(75)

t2.right(90)

t2.forward(75)

A. X B. N C. T D. M

Answer: C) =>> In the above code, three pens have been used to create a shape similar to the letter ‘T’. All the three straight lines are mutually perpendicular.

**K]** [**Classes and Objects, Inheritance and Exception Handling**](http://www.allindiaexams.in/engineering/cse/python-mcq/classes-objects-inheritance-exception-handling) **🡺**

<http://www.allindiaexams.in/engineering/cse/python-mcq/classes-objects-inheritance-exception-handling>

1. What is setattr() used for?

A. To access the attribute of the object B. To set an attribute

C. To check if an attribute exists or not D. To delete an attribute

Answer: Option B

Explanation: setattr(obj,name,value) is used to set an attribute. If attribute doesn’t exist, then it would be created.

2. What are the methods which begin and end with two underscore characters called?

A. Special methods B. In-built methods

C. User-defined methods D. Additional methods

Answer: Option A

Explanation: Special methods like \_\_init\_\_ begin and end with two underscore characters.

3. Which of these is a private data field?

def Demo:

def \_\_init\_\_(self):

\_\_a = 1

self.\_\_b = 1

self.\_\_c\_\_ = 1

\_\_d\_\_= 1

A. \_\_a B. \_\_b C. \_\_c\_\_ D. \_\_d\_\_

Answer: Option B

Explanation: Variables such as self.\_\_b are private members of the class.

4. When will the else part of try-except-else be executed?

A. always B. when an exception occurs

C. when no exception occurs D. when an exception occurs in to except block

Answer: Option C

Explanation: The else part is executed when no exception occurs.

5. What is the output of the code shown below?

def f(x):

yield x+1

print("test")

yield x+2

g=f(9)

A. Error B. test C. test1012 D. No output

Answer: Option D

Explanation: The code shown above will not yield any output. This is because when we try to yield 9, and there is no next(g), the iteration stops. Hence there is no output.

6. The output of the code shown below is:

int('65.43')

A. ImportError B. ValueError C. TypeError D. NameError

Answer: Option B

Explanation: The snippet of code shown above results in a value error. This is because there is an invalid literal for int() with base 10: ’65.43’.

7. What is the output of the following piece of code?

class A():

def disp(self):

print("A disp()")

class B(A):

pass

obj = B()

obj.disp()

A. Invalid syntax for inheritance B. Error because when object is created, argument must be passed

C. Nothing is printed D. A disp()

Answer: Option D

Explanation: Class B inherits class A hence the function disp () becomes part of class B’s definition. Hence disp() method is properly executed and the line is printed.

8. Which of the following statements is true?

A. The \_\_new\_\_() method automatically invokes the \_\_init\_\_ method

B. The \_\_init\_\_ method is defined in the object class

C. The \_\_eq(other) method is defined in the object class

D. The \_\_repr\_\_() method is defined in the object class

Answer: Option C

Explanation: The \_\_eq(other) method is called if any comparison takes place and it is defined in the object class.

9. Which function overloads the == operator?

A. \_\_eq\_\_() B. \_\_equ\_\_() C. \_\_isequal\_\_() D. none of the mentioned

Answer: Option A

Explanation: The other two do not exist.

10. What is the output of the following piece of code?

class Demo:

def \_\_init\_\_(self):

self.x = 1

def change(self):

self.x = 10

class Demo\_derived(Demo):

def change(self):

self.x=self.x+1

return self.x

def main():

obj = Demo\_derived()

print(obj.change())

main()

A. 11 B. 2 C. 1 D. An exception is thrown

Answer: Option D

Explanation: The derived class method change() overrides the base class method.