# Python Basics - 100 Multiple Choice Questions

Q1: What is the output of print(type(3))?

A) <class 'float'>

B) <class 'int'\*

C) <class 'str'>

D) <class 'complex'>

Q2: Which keyword is used to define a function in Python?

A) func

B) def\*

C) function

D) define

Q3: How do you create a list in Python?

A) {}

B) []\*

C) ()

D) <>

Q4: Which operator is used for exponentiation?

A) ^

B) \*\*\*

C) //

D) %

Q5: What is the correct way to write a comment in Python?

A) /\* comment \*/

B) <!-- comment -->

C) // comment

D) # comment\*

Q6: Which method adds an element to the end of a list?

A) add()

B) append()\*

C) insert\_last()

D) push()

Q7: How do you start a for-loop to iterate over a list `L`?

A) for i in range(L):

B) for i in L:\*

C) foreach i in L:

D) for (i : L){}

Q8: Which statement is used to exit a loop prematurely?

A) stop

B) exit()

C) break\*

D) return

Q9: What does `len('hello')` return?

A) 4

B) 5\*

C) 6

D) 'hello'

Q10: Which of the following is immutable?

A) list

B) dict

C) set

D) tuple\*

Q11: What is the output of print(2 // 3)?

A) 0\*

B) 0.666...

C) 1

D) 2

Q12: Which keyword is used for exception handling?

A) try/except\*

B) handle/catch

C) error/except

D) try/catch

Q13: How do you open a file named 'data.txt' for reading?

A) open('data.txt','w')

B) open('data.txt','r')\*

C) file('data.txt','r')

D) open('data.txt','a')

Q14: Which operator checks equality of values?

A) =

B) ==

C) ===

D) ==\*

Q15: What is the output of print(bool(0))?

A) True

B) False\*

C) 0

D) None

Q16: Which data type stores key-value pairs?

A) list

B) set

C) dict\*

D) tuple

Q17: How do you create a set with elements 1,2,3?

A) {1,2,3}\*

B) [1,2,3]

C) (1,2,3)

D) set(1,2,3)

Q18: Which statement is used to define a class?

A) class MyClass:\*

B) def MyClass:

C) struct MyClass:

D) object MyClass:

Q19: What is the output of print('a' \* 3)?

A) 'aaa'\*

B) 'a3'

C) 'a a a'

D) Error

Q20: Which function converts a string to an integer?

A) str()

B) int()\*

C) float()

D) eval()

Q21: How to get the index and value when iterating a list?

A) for i,v in enumerate(lst):\*

B) for i in lst.index():

C) for i in range(len(lst)):

D) for v,i in enumerate(lst):

Q22: What is list comprehension to square numbers in nums?

A) [x^2 for x in nums]

B) [x\*x for x in nums]\*

C) (x\*x for x in nums)

D) map(lambda x: x\*x, nums)

Q23: Which function combines elements into a string?

A) join()\*

B) split()

C) concat()

D) merge()

Q24: How do you create an empty dictionary?

A) {}

B) dict()\*

C) []

D) set()

Q25: Which of these creates a generator expression?

A) [x for x in range(3)]

B) (x for x in range(3))\*

C) {x for x in range(3)}

D) <x for x in range(3)>

Q26: Which keyword creates an anonymous function?

A) anonymous

B) lambda\*

C) func

D) def

Q27: How do you import the math module?

A) include math

B) import math\*

C) from math import all

D) using math

Q28: What does `x += 1` do?

A) x = x \* 1

B) x = 1

C) x = x + 1\*

D) increment(x)

Q29: Which method removes and returns the last item of a list?

A) pop()\*

B) remove()

C) delete()

D) discard()

Q30: How to convert a list `['1','2']` to integers?

A) list(map(int, ['1','2']))\*

B) int(['1','2'])

C) ['1','2'].int()

D) cast(['1','2'])

Q31: What is the correct way to access value for key 'k' with default?

A) d['k'] if 'k' in d else None

B) d.get('k')\*

C) d.value('k')

D) d.find('k')

Q32: Which statement checks if x is None?

A) x == None

B) x is None\*

C) x equals None

D) x === None

Q33: What does the `strip()` method do on strings?

A) Remove all characters

B) Remove leading/trailing whitespace\*

C) Convert to lowercase

D) Split into list

Q34: Which built-in returns the largest item?

A) max()\*

B) largest()

C) biggest()

D) top()

Q35: How do you create a tuple with one element 5?

A) (5)

B) (5,)\*

C) [5]

D) tuple(5)

Q36: Which symbol is used for string formatting with f-strings?

A) %

B) $

C) f''\*

D) {}

Q37: How to handle multiple exceptions in one except?

A) except Exception1 Exception2:

B) except (Exception1, Exception2):\*

C) except Exception1, Exception2:

D) except [Exception1, Exception2]:

Q38: What does `//` operator do?

A) Floating division

B) Integer (floor) division\*

C) Modulo

D) Exponent

Q39: Which of these creates an empty list?

A) list()

B) []\*

C) ()

D) {}

Q40: How to check if 'a' in string s?

A) s.has('a')

B) 'a' in s\*

C) s.contains('a')

D) s.find('a') == -1

Q41: What does the `range(5)` produce?

A) [0,1,2,3,4]\*

B) [1,2,3,4,5]

C) (0..5)

D) '0 to 5'

Q42: Which keyword defines an iterator method inside a class?

A) \_\_next\_\_\*

B) next

C) iterate

D) \_\_iter\_\_

Q43: How to create a copy of a list `a` (shallow)?

A) a.copy()\*

B) a.deepcopy()

C) copy(a)

D) a[:]

Q44: Which method returns keys of a dict?

A) dict.keys()\*

B) dict.items()

C) dict.values()

D) dict.getkeys()

Q45: What is the result of 'Hello'.lower()?

A) 'HELLO'

B) 'hello'\*

C) 'Hello'

D) Error

Q46: Which function evaluates a string as Python code (use with care)?

A) eval()\*

B) exec()

C) parse()

D) run()

Q47: Which is correct way to format 'age' in string using f-string?

A) 'Age: {}'.format(age)

B) f'Age: {age}'\*

C) 'Age: %s' % age

D) 'Age: ' + age

Q48: What keyword declares a function that yields values?

A) return

B) yield\*

C) give

D) produce

Q49: Which of these is true about Python indentation?

A) Optional

B) Used only for readability

C) Required for blocks\*

D) Tabs are forbidden

Q50: How to catch all exceptions (not recommended)?

A) except Exception as e:

B) except:\*

C) except Exception:

D) except: \*

Q51: Which built-in converts iterable to list?

A) tuple()

B) set()

C) list()\*

D) dict()

Q52: How to check type of variable x?

A) typeof(x)

B) type(x)\*

C) class(x)

D) kind(x)

Q53: Which operator concatenates strings?

A) +\*

B) &

C) .

D) concat()

Q54: What is the output of print(3 % 2)?

A) 1\*

B) 0

C) 2

D) 3

Q55: How to write a multi-line string?

A) 'line1\nline2'

B) """line1  
line2"""\*

C) 'line1' 'line2'

D) '''line1'''

Q56: Which method removes a key from dict and returns its value?

A) pop()\*

B) remove()

C) delete()

D) discard()

Q57: How to merge two dictionaries `a` and `b` (Python 3.9+)?

A) a.update(b)

B) a | b\*

C) merge(a,b)

D) dict(a,b)

Q58: Which is true about Python lists and tuples?

A) lists immutable, tuples mutable

B) lists mutable, tuples immutable\*

C) both immutable

D) both mutable

Q59: What is the output of bool('False')?

A) False

B) True\*

C) 'False'

D) None

Q60: Which built-in returns an iterator of (index, value)?

A) zip()

B) enumerate()\*

C) index()

D) items()

Q61: How to create a virtual environment (command)?

A) python -m venv env\*

B) venv create env

C) pyenv env

D) virtualenv env

Q62: Which function reads a line from input?

A) read()

B) input()\*

C) raw\_input()

D) getline()

Q63: What is the result of 'ab' \* 2?

A) 'abab'\*

B) 'ab2'

C) 'ab ab'

D) Error

Q64: Which of the following is a mapping type?

A) list

B) dict\*

C) set

D) tuple

Q65: How to check if a variable x is instance of int?

A) x.type == int

B) isinstance(x, int)\*

C) type(x) is 'int'

D) isint(x)

Q66: Which statement is used to continue to next iteration?

A) skip

B) continue\*

C) pass

D) next

Q67: What does `\_\_init\_\_` do in a class?

A) Destroys instance

B) Initializes instance attributes\*

C) Creates class variables

D) Overrides methods

Q68: Which of these creates a shallow copy of a list?

A) copy.deepcopy()

B) a[:] \*

C) list(a)

D) All except A

Q69: How do you sort a list `a` in-place?

A) sorted(a)

B) a.sort()\*

C) sort(a)

D) a.sorted()

Q70: Which function returns both keys and values of dict?

A) dict.pairs()

B) dict.items()\*

C) dict.kv()

D) dict.values()

Q71: What is the boolean value of an empty list []?

A) True

B) False\*

C) None

D) 0

Q72: How to format a number with two decimal places using format?

A) format(x, '.2f')\*

B) '{:.2f}'.format(x)

C) f'{x:.2f}'

D) All are valid\*

Q73: Which keyword is used to create an alias while importing?

A) as\*

B) alias

C) rename

D) import as

Q74: What is the use of `\_\_str\_\_` method in class?

A) For debugging only

B) Return informal string representation\*

C) Convert to bytes

D) Validate inputs

Q75: How to check the memory address identity between a and b?

A) a == b

B) a is b\*

C) id(a) == id(b)

D) both B and C\*

Q76: Which of these reads a file and returns list of lines?

A) file.read()

B) file.readlines()\*

C) file.readline()

D) file.readall()

Q77: What is the purpose of `if \_\_name\_\_ == '\_\_main\_\_':`?

A) To run code when script is imported

B) To run code when script executed directly\*

C) To define main class

D) To prevent errors

Q78: Which built-in can apply a function to all items and return an iterator?

A) filter()

B) map()\*

C) reduce()

D) apply()

Q79: How to filter items in a list for even numbers using list comprehension?

A) [x for x in nums if x%2==0]\*

B) [x for x in nums unless x%2]

C) filter(lambda x: x%2, nums)

D) map(lambda x: x%2==0, nums)

Q80: Which module is commonly used for regular expressions?

A) regex

B) re\*

C) regexp

D) sre

Q81: What does `\_\_repr\_\_` provide compared to `\_\_str\_\_`?

A) User-friendly string

B) Official representation for debugging\*

C) HTML representation

D) Binary representation

Q82: How to catch an exception and get its message?

A) except Exception as e: print(e)\*

B) except Exception e: print(e)

C) catch Exception as e: print(e)

D) except: print(error)

Q83: Which function removes whitespace from both ends of a string?

A) trim()

B) strip()\*

C) chomp()

D) clean()

Q84: Which of the following is a mutable sequence?

A) tuple

B) list\*

C) string

D) frozenset

Q85: How to create a dictionary from two lists `keys` and `values`?

A) dict(keys, values)

B) dict(zip(keys, values))\*

C) {keys: values}

D) combine(keys, values)

Q86: Which of these is used to measure execution time (simple)?

A) import time; time.time()

B) import time; time.perf\_counter()\*

C) import clock

D) import timer

Q87: What does `@` symbol denote in Python 3.5+?

A) Decorator for functions

B) Matrix multiplication operator\*

C) Attribute access

D) Private method indicator

Q88: Which function would you use to get absolute path of file?

A) os.path.abspath()\*

B) os.path.realpath()

C) os.path.join()

D) os.path.exists()

Q89: How to create a deepcopy of an object?

A) copy.copy()

B) copy.deepcopy()\*

C) object.clone()

D) shallow\_copy()

Q90: Which of the following creates a bytes object from a string?

A) b'string'\*

B) bytes('string')

C) str.encode()

D) Both A and C\*

Q91: What happens if you try to access a dict key that doesn't exist using d['k']?

A) Returns None

B) Raises KeyError\*

C) Returns False

D) Returns ''

Q92: Which keyword is used to skip implementation in a function or class block?

A) skip

B) pass\*

C) continue

D) noop

Q93: How to reverse a list `a` in-place?

A) a.reverse()\*

B) a.reversed()

C) reversed(a)

D) a[::-1]

Q94: Which of these creates an immutable set?

A) frozenset()\*

B) set()

C) tuple()

D) immutable\_set()

Q95: Which function raises StopIteration when exhausted?

A) list()

B) iterator()

C) next()\*

D) iter()

Q96: What is the purpose of `\_\_len\_\_` in a class?

A) Define stringification

B) Provide length for len(obj)\*

C) Create iterator

D) Compare objects

Q97: How to merge two lists a and b into a new list?

A) a + b\*

B) a.extend(b)

C) append(a,b)

D) merge(a,b)

Q98: Which keyword is used to define an asynchronous function?

A) async\*

B) await

C) deferred

D) concurrency

Q99: What does `zip([1,2],[3,4])` return when converted to list?

A) [(1,2),(3,4)]

B) [(1,3),(2,4)]\*

C) [(1,3,2,4)]

D) Error

Q100: Which built-in sorts and returns a new list?

A) list.sort()

B) sorted()\*

C) order()

D) sort\_new()