**1. Introduction to Python**

1. What is Python?
   * a) A programming language
   * b) A type of snake
   * c) An operating system
   * d) A text editor
2. Which of the following statements about Python is true?
   * a) Python is a compiled language
   * b) Python is case-sensitive
   * c) Python does not support object-oriented programming
   * d) Python code must always be written in curly braces
3. What is the correct way to output "Hello, World!" in Python?
   * a) echo "Hello, World!"
   * b) print("Hello, World!")
   * c) printf("Hello, World!")
   * d) document.write("Hello, World!")
4. Which extension is used for Python files?
   * a) .py
   * b) .java
   * c) .cpp
   * d) .txt
5. How to install modules in python?
   * a) Using python documentation
   * b) Using pip install
   * c) Using additional installation procedure in TensorFlow
   * d) Using skibidi sigma modification tool

**2. Variables, Data Types, and Operators**

1. Which of the following is a correct variable declaration in Python?
   * a) int x = 5
   * b) var x = 5
   * c) x = 5
   * d) declare x = 5
2. What data type is returned by the expression 3 + 2.5 in Python?
   * a) Integer
   * b) Float
   * c) String
   * d) Boolean
3. Which operator is used for exponentiation in Python?
   * a) ^
   * b) \*\*
   * c) %
   * d) //
4. Which of the following is a mutable data type in Python?
   * a) String
   * b) Tuple
   * c) List
   * d) Integer
5. What will be the output of the following code?

a = 10

b = 20

a, b = b, a

print(a, b)

* + a) 10 10
  + b) 10 20
  + c) 20 10
  + d) 20 20

**3. Control Flow**

1. Which of the following is used to create a conditional statement in Python?
   * a) if
   * b) for
   * c) while
   * d) switch
2. What will be the output of the following code?

x = 5

if x > 2:

print("A")

elif x > 4:

print("B")

else:

print("C")

* + a) A
  + b) B
  + c) C
  + d) No output

1. Which Python keyword is used to exit a loop prematurely?
   * a) exit
   * b) stop
   * c) break
   * d) return
2. What is the difference between while and for loops in Python?
   * a) while is used for definite iteration; for is used for indefinite iteration.
   * b) for is used for definite iteration; while is used for indefinite iteration.
   * c) There is no difference.
   * d) for loops always run infinitely, while while loops do not.
3. What will be the output of this Python code?

count = 0

while count < 3:

print(count)

count += 1

else:

print("Done")

* + a) 0 1 2
  + b) 0 1 2 Done
  + c) Done 0 1 2
  + d) 0 1 Done

**4. Containers**

1. Which of the following is an example of a list in Python?
   * a) {1, 2, 3}
   * b) [1, 2, 3]
   * c) (1, 2, 3)
   * d) "1, 2, 3"
2. What is the output of the following code?

my\_list = [1, 2, 3, 4, 5]

print(my\_list[2])

* + a) 1
  + b) 2
  + c) 3
  + d) 4

1. Which of the following operations can be performed on a set in Python?
   * a) Append elements
   * b) Add duplicate elements
   * c) Perform union and intersection
   * d) Access elements by index
2. What is the difference between a list and a tuple in Python?
   * a) Lists are immutable, tuples are mutable
   * b) Lists are mutable, tuples are immutable
   * c) Both are immutable
   * d) Both are mutable
3. What will be the output of the following code?

my\_dict = {'a': 1, 'b': 2, 'c': 3}

print(my\_dict.get('d', 'Not Found'))

* + a) 3
  + b) None
  + c) 'Not Found'
  + d) KeyError

**5. Functions**

1. How do you define a function in Python?
   * a) function myFunc()
   * b) def myFunc():
   * c) myFunc def()
   * d) declare myFunc()
2. What is the output of the following code?

def greet(name="Guest"):

print(f"Hello, {name}!")

greet("Alice")

greet()

* + a) Hello, Guest! Hello, Alice!
  + b) Hello, Alice! Hello, Guest!
  + c) Hello, Guest! Hello, Guest!
  + d) Error due to missing argument

1. What does the return statement do in a function?
   * a) Stops the function and returns a value
   * b) Skips to the next function
   * c) Ends the program
   * d) Runs the function again
2. What is a recursive function?
   * a) A function that returns multiple values
   * b) A function that calls itself
   * c) A function that takes multiple arguments
   * d) A function without arguments
3. What will be the output of the following code?

def add(a, b):

return a + b

print(add(5, 7))

* + a) 57
  + b) 12
  + c) Error
  + d) None

**6. Modules and Packages**

1. What is the purpose of a module in Python?
   * a) To define a function
   * b) To group related functions and variables into a file
   * c) To execute Python scripts automatically
   * d) To document Python code
2. How do you import a module in Python?
   * a) include module\_name
   * b) import module\_name
   * c) load module\_name
   * d) using module\_name
3. What is the difference between a module and a package in Python?
   * a) Modules are collections of packages
   * b) Packages are collections of modules
   * c) Packages contain a single module
   * d) There is no difference
4. What will be the output of the following code?

import math

print(math.sqrt(16))

* + a) 8
  + b) 4
  + c) 2
  + d) Error

1. Which of the following is a built-in module in Python?
   * a) requests
   * b) random
   * c) numpy
   * d) flask

**7. File Handling**

1. Which mode opens a file for reading and writing in Python?
   * a) "r"
   * b) "w"
   * c) "r+"
   * d) "a+"
2. What will happen if you try to open a non-existent file in "r" mode?
   * a) A new file is created
   * b) The file is opened with no error
   * c) The program will raise a FileNotFoundError
   * d) The file will be created and opened
3. How do you properly close a file in Python?
   * a) end(file)
   * b) stop(file)
   * c) file.close()
   * d) file.quit()
4. What is the purpose of the with statement when working with files in Python?
   * a) It ensures that the file is closed after its block of code is executed
   * b) It allows multiple files to be opened at once
   * c) It prevents the file from being deleted
   * d) It reads the entire file into memory
5. What will the following code do?

with open('test.txt', 'w') as file:

file.write("Hello World")

* + a) Raise an error because the file doesn't exist
  + b) Write "Hello World" to 'test.txt'
  + c) Append "Hello World" to 'test.txt'
  + d) Read the contents of 'test.txt'

**8. Object-Oriented Programming (OOP)**

1. What is a class in Python?
   * a) A blueprint for creating objects
   * b) A function that performs a specific task
   * c) A type of variable
   * d) A module that contains code
2. Which of the following defines a constructor in Python?
   * a) def constructor(self)
   * b) def \_\_init\_\_(self)
   * c) def \_\_constructor\_\_(self)
   * d) def init(self)
3. What is inheritance in Python?
   * a) The process of defining multiple methods with the same name
   * b) The ability of one class to derive properties and methods from another class
   * c) The process of removing attributes from a class
   * d) A method to store variables inside a class
4. What is the purpose of the self keyword in Python?
   * a) It refers to the instance of the class
   * b) It refers to the superclass
   * c) It is used to access static methods
   * d) It is a built-in Python function
5. What will be the output of the following code?

class Animal:

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

self.name = name

dog = Animal("Dog")

print(dog.name)

* + a) Animal
  + b) Dog
  + c) Error
  + d) None

**9. Error Handling**

1. Which of the following is used to handle exceptions in Python?
   * a) try-except
   * b) if-else
   * c) loop-break
   * d) raise-catch
2. What will happen if an exception is not handled in Python?
   * a) The program will crash and show an error
   * b) The program will run normally
   * c) The exception will be ignored
   * d) Python will fix the error automatically
3. What does the finally block do in exception handling?
   * a) It executes only when no exception is raised
   * b) It is always executed, whether an exception occurs or not
   * c) It executes only when an exception is raised
   * d) It stops the program
4. How do you raise a custom exception in Python?
   * a) raise Exception("Custom error message")
   * b) throw Exception("Custom error message")
   * c) catch Exception("Custom error message")
   * d) except Exception("Custom error message")
5. What is the output of the following code?

try:

x = 10 / 0

except ZeroDivisionError:

print("Cannot divide by zero")

* + a) ZeroDivisionError
  + b) Cannot divide by zero
  + c) 0
  + d) No output

**10. Working with Libraries**

1. How do you install an external library in Python?
   * a) import library\_name
   * b) install library\_name
   * c) pip install library\_name
   * d) library\_name install
2. Which of the following libraries is commonly used for numerical computations in Python?
   * a) numpy
   * b) matplotlib
   * c) tkinter
   * d) flask
3. What will be the output of the following code using the random library?

import random

print(random.randint(1, 10))

* + a) A random float between 1 and 10
  + b) A random integer between 1 and 9
  + c) A random integer between 1 and 10
  + d) A random float between 0 and 1

1. Which library is used for data manipulation and analysis in Python?
   * a) pandas
   * b) os
   * c) sys
   * d) json
2. How do you import a specific function from a library in Python?
   * a) import library\_name.function\_name
   * b) from library\_name import function\_name
   * c) import function\_name from library\_name
   * d) load library\_name.function\_name