

Which of the following is a valid variable name in Python?

- A) 1variable
- B) variable_1
- C) variable-1
- D) variable 1

Answer: B

What will be the output of `print(2 + 3 * 4)`?

- A) 20
- B) 14
- C) 24
- D) 18

Answer: B ($3*4=12$, $12+2=14$)

What does the % operator do?

- A) Division
- B) Modulus (Remainder)
- C) Multiplication
- D) None of the above

Answer: B

Which of the following is a keyword in Python?

- A) variable
- B) print
- C) if
- D) loop

Answer: C

What is the output of `print("Hello" + "World")`?

- A) Hello World
- B) HelloWorld
- C) Hello+World
- D) Error

Answer: B

Which of the following data types is immutable?

- A) List
- B) Dictionary
- C) Tuple
- D) Set

Answer: C

What does `random.randint(1, 10)` do?

- A) Returns a random float between 1 and 10
- B) Returns a random integer between 1 and 10 inclusive
- C) Returns a random integer between 0 and 9
- D) None of the above

Answer: B

What is the result of `5 // 2` in Python?

- A) 2.5
- B) 2
- C) 3
- D) 1

Answer: B (integer division)

Which operator has the highest precedence?

- A) +
- B) *
- C) ==
- D) and

Answer: B

What will the following code output?

```
x = 10
if x > 5:
    print("Greater")
else:
    print("Smaller")
```

- A) Greater
- B) Smaller
- C) Error
- D) None

Answer: A

What is the output of this snippet?

```
for i in range(3):
    print(i)
```

- A) 1 2 3
- B) 0 1 2
- C) 0 1 2 3
- D) None

Answer: B

Which of the following will cause a NameError?

- A) Using a variable before assignment
- B) Using a variable after assignment
- C) Using reserved keywords as variable names
- D) Both A and C

Answer: D

What is the type of the expression: $5 / 2$?

- A) int
- B) float
- C) string
- D) bool

Answer: B

What is the output of this?

```
print("Python\nProgramming")
```

- A) PythonProgramming
- B) Python Programming
- C) Python
Programming
- D) Error

Answer: C

Which of the following statements is true about lists?

- A) Lists are immutable
- B) Lists are mutable
- C) Lists are the same as tuples
- D) None of the above

Answer: B

What does the break statement do in loops?

- A) Skips to the next iteration
- B) Exits the loop immediately

- C) Stops the program
- D) None of the above

Answer: B

Which keyword is used to define a function in Python?

- A) func
- B) define
- C) def
- D) function

Answer: C

What will be the output?

```
print(3 * "abc")
```

- A) abcabcabc
- B) abc * 3
- C) abcabc
- D) Error

Answer: A

Which of the following is a correct comment in Python?

- A) // This is a comment
- B) # This is a comment
- C) / *This is a comment* /
- D) -- This is a comment

Answer: B

What does this expression evaluate to?

4 > 3 and 2 < 5

- A) True
- B) False
- C) None
- D) Error

Answer: A

Part 2: Coding Problems (Sample 10) with Answers

1. Write a Python program to print “Hello World!”

```
print("Hello World!")
```

2. Write a program to add two numbers

```
a = int(input("Enter first number: "))  
b = int(input("Enter second number: "))  
print("Sum =", a + b)
```

3. Check if a number is even or odd

```
num = int(input("Enter a number: "))  
if num % 2 == 0:  
    print(num, "is Even")  
else:  
    print(num, "is Odd")
```

4. Calculate factorial of a number using a while loop

```
num = int(input("Enter a number: "))  
factorial = 1  
i = 1  
while i <= num:  
    factorial *= i  
    i += 1  
print(f"Factorial of {num} is {factorial}")
```

5. Print multiplication table of a number

```
num = int(input("Enter a number: "))  
for i in range(1, 11):  
    print(f"{num} x {i} = {num * i}")
```

6. Print all even numbers between 1 and 20

```
for i in range(1, 21):  
    if i % 2 == 0:  
        print(i, end=" ")
```

7. Check if a string is a palindrome

```
s = input("Enter a string: ")  
if s == s[::-1]:  
    print("Palindrome")  
else:  
    print("Not Palindrome")
```

8. Find the largest number in a list

```
numbers = [10, 45, 32, 98, 21]
```

```
max_num = numbers[0]
for num in numbers:
if num > max_num:
max_num = num
print("Largest number:", max_num)
```

9. Sum all numbers in a list

```
numbers = [10, 20, 30, 40]
total = 0
for num in numbers:
total += num
print("Sum:", total)
```

10. Generate 5 random numbers between 1 and 100

```
import random
for _ in range(5):
print(random.randint(1, 100))
```

How to proceed?

Would you like me to generate more MCQs in batches of 20-30?

More coding problems with detailed explanations?

Or maybe categorized questions by topic?

Just tell me your preferred approach!

You said:

more mcq and coding with answer

ChatGPT said:

Got it! Here's another batch of 30 MCQs + 10 coding problems with answers based on your Units I & II topics.

MCQs (21-50)

Which function is used to get user input in Python?

- A) input()
- B) scan()
- C) read()
- D) get()

Answer: A

What is the output of:

```
print(type(5.0))
```

- A) <class 'int'>
- B) <class 'float'>
- C) <class 'str'>
- D) Error

Answer: B

What will this code output?

```
print(bool(0))
```

- A) True
- B) False
- C) 0
- D) Error

Answer: B

Which of the following is NOT a valid Python data type?

- A) list
- B) array
- C) tuple
- D) set

Answer: B

What does this code print?

```
print("5" + "5")
```

- A) 10
- B) 55
- C) "5 + 5"
- D) Error

Answer: B

Which operator is used for exponentiation?

- A) ^
- B) **
- C) //
- D) %

Answer: B

What keyword is used to exit a loop?

- A) exit
- B) break
- C) stop
- D) quit

Answer: B

What will be the output?

```
x = 5  
x += 3  
print(x)
```

- A) 5
- B) 3
- C) 8
- D) Error

Answer: C

How many times will this loop run?

```
for i in range(5):  
    print(i)
```

- A) 4
- B) 5
- C) 6
- D) Infinite

Answer: B

What is the output of:

```
print(7 % 3)
```

- A) 1
- B) 2
- C) 0
- D) 3

Answer: B

Which is the correct way to write a single-line comment?

- A) # comment
- B) // comment
- C) / *comment* /
- D) -- comment

Answer: A

What is the output?

```
print(2 == 2 and 3 > 2)
```

- A) True
- B) False
- C) None
- D) Error

Answer: A

What will this print?

```
print("Hi" * 3)
```

- A) Hi3
- B) HiHiHi
- C) Hi*3
- D) Error

Answer: B

What type is the variable x after the following?

```
x = "10"
```

- A) int
- B) float
- C) str
- D) bool

Answer: C

Which loop runs at least once even if the condition is false?

- A) for loop
- B) while loop
- C) do-while loop
- D) None in Python

Answer: D (Python has no do-while)

What keyword starts a function definition?

- A) func
- B) def
- C) function
- D) define

Answer: B

Which is the correct way to import the random module?

- A) import random
- B) import Random
- C) include random
- D) using random

Answer: A

What will the following print?

```
print(bool("False"))
```

- A) True
- B) False
- C) Error
- D) None

Answer: A (non-empty string is True)

Which method removes whitespace from the start and end of a string?

- A) strip()
- B) trim()
- C) remove()

D) `delete()`

Answer: A

What is the output?

```
x = 5
```

```
if x > 10:
```

```
print("Big")
```

```
else:
```

```
print("Small")
```

A) Big

B) Small

C) Error

D) None

Answer: B

Which of the following is NOT a logical operator in Python?

A) and

B) or

C) not

D) xor

Answer: D

What happens when you divide by zero in Python?

A) Returns infinity

B) Returns zero

C) Raises an error

D) Returns None

Answer: C

What is the output of:

```
print(len("Hello"))
```

A) 4

B) 5

C) 6

D) Error

Answer: B

What keyword is used to create a block of code that handles exceptions?

- A) try
- B) except
- C) finally
- D) catch

Answer: A

What is the output of:

```
print("Hello"[1])
```

- A) H
- B) e
- C) I
- D) o

Answer: B

Which of these is used to terminate a function and optionally return a value?

- A) stop
- B) exit
- C) return
- D) break

Answer: C

What is the output?

```
print(bool([]))
```

- A) True
- B) False
- C) Error
- D) None

Answer: B (empty list is False)

What type of error occurs when you use an undefined variable?

- A) SyntaxError
- B) NameError
- C) TypeError
- D) ValueError

Answer: B

Which function converts a string to an integer?

- A) str()
- B) int()
- C) float()
- D) chr()

Answer: B

What does this print?

```
print(10 // 3)
```

- A) 3.33
- B) 3
- C) 4
- D) 3.0

Answer: B

Coding Problems (11-20)

11. Find the largest of three numbers

```
a = int(input("Enter first number: "))  
b = int(input("Enter second number: "))  
c = int(input("Enter third number: "))
```

```
if a >= b and a >= c:  
    print(a, "is largest")  
elif b >= a and b >= c:  
    print(b, "is largest")  
else:  
    print(c, "is largest")
```

12. Print numbers from 1 to 10 using a while loop

```
i = 1  
while i <= 10:  
    print(i)  
    i += 1
```

13. Calculate the sum of all even numbers between 1 and 50

```
total = 0  
for i in range(2, 51, 2):
```

```
total += i
print("Sum of even numbers:", total)
```

14. Check if a number is prime

```
num = int(input("Enter a number: "))
if num > 1:
    for i in range(2, num):
        if num % i == 0:
            print(num, "is not prime")
            break
        else:
            print(num, "is prime")
    else:
        print(num, "is not prime")
```

15. Print the first n Fibonacci numbers

```
n = int(input("Enter how many Fibonacci numbers to print: "))
a, b = 0, 1
count = 0
while count < n:
    print(a, end=" ")
    a, b = b, a + b
    count += 1
print()
```

16. Reverse a string

```
s = input("Enter a string: ")
rev = ""
for char in s:
    rev = char + rev
print("Reversed string:", rev)
```

17. Print a right-angled triangle of stars

```
n = int(input("Enter number of rows: "))
for i in range(1, n+1):
    print(" " * i)
```

18. Calculate the average of numbers in a list

```
numbers = [10, 20, 30, 40, 50]
total = 0
for num in numbers:
    total += num
```

```
average = total / len(numbers)
print("Average:", average)
```

19. Count vowels in a string

```
s = input("Enter a string: ").lower()
vowels = "aeiou"
count = 0
for char in s:
    if char in vowels:
        count += 1
print("Number of vowels:", count)
```

20. Generate 10 random numbers and find their sum

```
import random
```

```
total = 0
for _ in range(10):
    num = random.randint(1, 100)
    print(num, end=" ")
    total += num
print("\nSum:", total)
```