



10th COMPUTER SCIENCE SOLVED EXERCISE

UNIT #03 — Introduction to Python Programming

Prepared by: Mahmood Khan | MS Cyber Security

[Codymentor Software House Sahiwal](#) | 03186879182

Multiple Choice Questions

1. Which of the following steps is NOT part of the basic programming process?

- (a) Write Code
- (b) Compile/Interpret
- (c) Execute
- (d) Ignore Errors

2. What should you do when installing Python to run it from the command line more easily?

- (a) Uncheck "Add Python to PATH"
- (b) Choose a different IDE
- (c) Check "Add Python to PATH"
- (d) Install only the IDE

3. What will be the output of: `print (10 // 3)`?

- (a) 3.333
- (b) 3
- (c) 1
- (d) 4

4. What does the `input ()` function return?

- (a) Integer
- (b) Float
- (c) String
- (d) Boolean

5. Which operator has the highest precedence in Python?

- (a) Addition (+)
- (b) Multiplication (*)
- (c) Exponentiation (**)
- (d) Parentheses ()

6. What is the result of `5 > 3` and `2 < 1`?

- (a) True
- (b) False
- (c) Error
- (d) None

7. What does the `+=` operator do?

- (a) Adds two numbers
- (b) Compares values
- (c) Adds and assigns
- (d) Multiplies values

8. Which function converts string integer?

- (a) `str()`
- (b) `int ()`

(c) float()

(d) input ()

9. What is the output of the below code?`age = 25; print ("Age:", age)`

(a) Age: 25

(b) 25

(c) Age

(d) age

10. Which symbol is used for comments in Python?

(a) //

(b) /*

(c) #

(d) --

Answer Key

Q.No.	1	2	3	4	5	6	7	8	9	10
Answer	D	C	B	C	D	B	C	B	A	C

Short Answer Questions

1. Why are comments important in programming?

Answer: Comments are the lines that are not executed by the Python interpreter. They are used to provide explanations or notes for the programmer. Single line comments start with the # symbol. We can use “...” (triple quotes) for multiline comments but actually they are multiline strings which are ignored at run time.

2. Discuss three basic data types in Python.

Answer: In Python, you can create variables of different types to store various kinds of data. Here are some common types of variables:

Integer (int): Stores whole numbers. Example: `age = 17`

Floating-point (float): Stores decimal numbers. Example: `price = 19.99`

String (str): Stores text. Example: `name = "Ali"`

Boolean (bool): Stores True or False. Example: `is_student = True`

3. Describe the difference between integer and float data types in Python.

Answer:

An integer (int) stores whole numbers without a decimal point, while a float stores numbers with a decimal point.

Example:

```
age = 25      # Integer
```

```
height = 5.8  # Float
```

Here, age is an integer because it stores the whole number 25, while height is a float because it stores the decimal number 5.8.

4. How does the if statement differ from the if-else statement?

Answer:

The **if statement** lets us make decisions based on conditions. If the condition is true, it runs a block of code. # **Syntax of if statement if condition:**

If condition:

code to run if the condition is true

The **if-else statement** allows us to execute one block of code if a condition is true and another block if the condition is false.

Syntax of if-else statement if condition:

If condition:

code to run if the condition is true else:

else:

code to run if the condition is false

note: In Python indentation defines the structure block or scope of your code.

5. What are logical operators and name all three?

Answer: Logical operators are used to combine multiple or expressions. The most common logical operators are:

- AND
- OR
- NOT

they are used to perform logical operations and return Boolean values based on the evaluation of the expressions involved.

6. How do you get user input in Python?

Answer:

We use the input () function to get user input. The input () function displays a

message on the screen and waits for the user to type something and press Enter. The text entered by the user is then stored in a variable.

Example:

```
name = input("Enter your name: ")
```

The line of code ask user to enter their name and store it in the variable “ name”

7. What is the purpose of print () statement in Python?

Answer:

The print () function is used to display information on the screen. The print () function takes one or more arguments and displays them. For example:

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

```
print("Hello ", name)
```

This line of code displays a greeting message that includes the user's name.

8. What is operator precedence? Give an example.

Answer:

Operator precedence determines the order in which operators are evaluated in an expression. Operators with higher precedence are evaluated before operators with lower precedence.

Parentheses '()': Highest precedence. Operations inside parentheses are performed first.

Exponentiation: Performs power operations next.

Multiplication '*', Division '/', and Modulus '%': These operations come next.

Addition '+' and Subtraction '-': These have lower precedence compared to multiplication and division.

9. Write any three main rules for naming variables in Python?

Answer:

Variable names in Python must adhere to the following rules:

- The name must begin with a letter (a-z, A-Z) or an underscore (_).
- Subsequent characters can include letters, digits (0-9), or underscores (_).
- Variable names are case-sensitive, meaning age and Age are considered two different variables.
- Python's reserved keywords, such as for, while, if, etc., cannot be used as variable names.