PROG Python Quizz

These are all multiple choice questions with only one correct answer.

Values, Expressions, Variables

Q1. **What does the following code print?**

```
print(3)
```

- ☐ It does not print anything.
- ☐ Three
- ☒ 3
- ☐ 0

Q2. **What does the following code print?**

```
print(3 + 2)
```

- ☐ It does not print anything.
- ☒ 5
- ☐ 32
- ☐ 3 + 2

Q3. **What does the following code print?**

```
print("3 + 2")
```

- ☐ It does not print anything.
- ☐ None
- ☒ 3 + 2
- ☐ 5

Purpose of below questions: Check whether the student understands: What is a variable, what does it evaluate to in an expression?

Q4. **What does the following code print?**

```
print(x)
```

- ☒ It does not print anything. An error occurs.
- ☐ x

Q5.**What does the following code print?**

```
x = 5
print(x)
```

- ☐ It does not print anything. An error occurs.
- ☒ 5
- ☐ x

Q6. **What does the following code print?**

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

- ☐ It does not print anything. An error occurs.
- ☐ x - 3
- ☒ 2
- ☐ 5 - 3

Purpose of below questions: Check whether the student understands: Assignment, how reassignment works, the order of execution of instructions

Q7. **What does the following code print?**

```
x = 0
x = 1
print(x)
```

- ☐ It does not print anything. An error occurs.
- ☐ x
- ☐ 0
- ☒ 1

Q8. **What does the following code print?**

```
x = 0
print(x)
x = 1
print(x)
```

- ☐ It does not print anything. An error occurs.
- ☐ x x
- ☐ 0 0
- ☒ 0 1
- ☐ 1 1
- ☐ 1 0
- ☐ It depends. Two executions can lead to different outcomes.

Q9. **What does the following code print?**

```
x = 5
y = 7
x = y
print(x, y)
```

- ☐ It does not print anything. An error occurs.
- ☐ 5 7
- ☐ 7 5
- ☒ 7 7
- ☐ 5 5
- ☐ x y

Q10. **What does the following code print?**

```
x = 2
x = x - 1
print(x)
```

- ☐ It does not print anything. An error occurs.
- ☐ 2
- ☐ x
- ☒ 1
- ☐ -1

Control Flow: Conditionals

Purpose of below questions: Check whether the student understands: Boolean values, difference between equality boolean operator and assignment

Q11. **What does the following code print?**

```
print(1 == 2)
```

- ☐ It does not print anything. An error occurs.
- ☐ 1 == 2
- ☒ False
- ☐ 2

Q12. **What does the following code print?**

```
x = 3 == 3
print(x)
```

- ☐ It does not print anything. An error occurs.
- ☐ 3
- ☒ True
- ☐ x

Purpose of below questions: Check whether the student understands: the if statement, the else statement

Q13. **What does the following code print?**

```
if 0 == 1:
    print("a")
print("b")
```

- ☐ It does not print anything. An error occurs.
- ☐ It does not print anything. But no error.
- ☐ a b
- ☐ a
- ☒ b

Q14. **What does the following code print?**

```
if 0 == 1:
```

```
    print("a")
else:
    print("b")
```

- ☐ It does not print anything. An error occurs.
- ☐ It does not print anything. But no error.
- ☐ a b
- ☐ a
- ☒ b

Purpose of below questions: Check whether the student understands: code blocks

Q15. **What does the following code print?**

```
if 0 == 1:
    print("a")
    print("b")
```

- ☐ It does not print anything. An error occurs.
- ☒ It does not print anything. But no error.
- ☐ a b
- ☐ a
- ☐ b

Q16. **What does the following code print?**

```
if 0 == 1:
    print("a")
    print("b")
else:
    print("c")
    print("d")
print("e")
```

- ☐ It does not print anything. An error occurs.
- ☐ a
- ☐ c
- ☐ e
- ☐ a b
- ☐ a b e
- ☐ c d
- ☒ c d e

Q17. **What does the following code print?**

```
if 0 == 1:
    print("a")
    print("b")
print("e")
else:
    print("c")
```

```
    print("d")
```

☒ It does not print anything. An error occurs.
☐ a
☐ c
☐ e
☐ a b
☐ a b e
☐ c d
☐ e c d

Purpose of below questions: Check whether the student understands: nested ifs

Q18. **What does the following code print?**

```
if 0 == 1:
    print("a")
else:
    if 1 == 1:
        print("b")
    else:
        print("c")
    print("d")
```

☐ It does not print anything. An error occurs.
☐ It does not print anything. But no error.
☐ a
☐ b
☐ c
☐ d
☒ b d
☐ c d
☐ b c d

Control Flow: Loops

Purpose of below questions: Check whether the student understands: while statement

Q19. **How many lines does the following code print?**

```
n = 0
while n > 1:
    print("ok")
```

☒ 0
☐ 1
☐ Theoretically, infinitely many

Q20. **How many lines does the following code print?**

```
n = 3
while n > 1:
    print("ok")
```

- ☐ 0
- ☐ 1
- ☒ Theoretically, an infinite amount of times

Q21. **How many lines does the following code print?**

```
n = 3
while n > 1:
    n = n - 1
    print("ok")
```

- ☐ 0
- ☐ 1
- ☒ 2
- ☐ Theoretically, infinitely many

Q22. **What does the following code print?**

```
x = 1
y = -1
while x < 5:
    y = y - 1
    x = x * 2
print(x, y)
```

- ☐ x, y
- ☐ 4 -4
- ☐ 4 -3
- ☐ 5 -5
- ☐ 5 -4
- ☒ 8 -4
- ☐ 8 -8

Q23. **What does the following code print?**

```
n = 0
while n < 3:
    if n < 2:
        print("less")
    else:
        print("more")
    n = n + 1
```

- ☐ It does not print anything.
- ☐ less
- ☐ more
- ☐ less more

☒ less less more
☐ less more more
☐ less less more more

Purpose of below questions: Check whether the student understands: for-in statement and nested loops

Q24. **What does the following code print?**

```
for x in [3, 1]:
    for y in [2, 4]:
        print(x, y)
```

☐ 1 2 3 4
☐ 3 2 1 4
☐ 3 2 1 2 3 4 1 4
☒ 3 2 3 4 1 2 1 4

Functions

Purpose of below questions: Check whether the student understands: The notions and distinctions between function definition, function call, function parameters, body of the function. Which instructions are executed and in what order when defining and calling one function.

Q25. **What does the following code print?**

```
def print_one():
    print(1)
```

☒ It does not print anything.
☐ 1

Q26. **What does the following code print?**

```
def print_one():
    print(1)
print_one()
```

☐ It does not print anything.
☒ 1
☐ 1 1

Q27. **What does the following code print?**

```
def print_one():
    print(1)
print(2)
print_one()
```

☐ It does not print anything.
☐ 1 2

☒ 2 1
☐ 1 2 1

Consider the following code:

```
def print_sum(x, y):
    print(x + y)
```

Q28. **What is the name of the above-defined function?**

☐ def print_sum(x, y)
☐ print_sum(x, y)
☒ print_sum

Q29. **What are the parameters (or arguments) of the above-defined function?**

☒ x, y
☐ x + y
☐ There are none

Q30. **Which line(s) correspond(s) to the body of the above-defined function?**

☐ The first line
☒ The second line
☐ The first and the second lines
☐ There is no function body

Q31. **Which line(s) contain(s) a function call in the above code?**

☐ The first line
☐ The second line
☐ The first and the second lines
☒ There are no function calls

Purpose of below questions: Check whether the student understands: how to pass values to a function

Q32. **What does the following code print?**

```
def print_sum(x, y):
    print(x + y)

x = 1
y = 2
print_sum(3, 4)
```

☐ It does not print anything. No error.
☐ It does not print anything. An error occurs.
☐ 3
☒ 7
☐ 3 7

Purpose of below questions: Check whether the student understands: the return value

Q33. **What does the following code print?**

```
def sum(x, y):
    print(x)
    return x + y

a = 1
b = sum(a, -1)
print(b)
```

- ☐ It does not print anything. An error occurs.
- ☐ 1
- ☐ 0
- ☒ 1 0

Purpose of below questions: Check whether the student understands: Which instructions are executed and in what order when using several functions, possibly calling each other.

Q34. **What does the following code print?**

```
def fun_a(x):
    print(x - 1)
    return x + 1

def fun_b(y):
    print(y)
    z = fun_a(x)
    print(z)
    return z * 2

y = 1
z = fun_b(y)
print(z)
```

- ☐ It does not print anything. An error occurs.
- ☐ 0 1 2 4
- ☒ 1 0 2 4
- ☐ 4 1 0 2
- ☐ 4 1 0 2