

Frage **1**

Vollständig

Nicht bewertet

By selecting "I confirm", I hereby declare under oath that I will work on this examination on my own without any help or any third-party assistance.

By selecting "I confirm", I understand that noncompliance results in invalidation of the assessment, whereby the invalidated examination will be added to the total number of retakes and noncompliance may result in further legal action.

- ☐ a. I do not confirm
- ☒ b. I confirm

Die richtige Antwort ist: I confirm

Frage **2**

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following lines would create a list in Python?

- ☒ a. `[1, 2, 3, 4]`
- ☐ b. `(1, 2, 3, 4)`
- ☐ c. `def l(1, 2, 3, 4):`
- ☐ d. `1, 2, 3, 4`



Die richtige Antwort ist: `[1, 2, 3, 4]`

Frage **3**

Richtig

Erreichte Punkte 1,00 von 1,00

Which output would be generated by the following code?

```
true = True
false = False
if false:
    print("First output!")
elif true:
    print("Second output!")
elif true:
    print("Third output!")
else:
    print("Last output!")
```

- ☐ a. "Last output!"
- ☒ b. "Second output!"
- ☐ c. "Second output!" "Third output!"
- ☐ d. "First output!" "Second output!" "Third output!" "Last output!"



Die richtige Antwort ist: "Second output!"

Frage **4**

Richtig

Erreichte Punkte 1,00 von 1,00

The variable names "1var" and "1Var" are

- ☐ a. two different valid variable names
- ☒ b. invalid, since a variable name can not start with a digit
- ☐ c. equivalent and referring to the same valid variable names
- ☐ d. invalid, since they are too short



Die richtige Antwort ist: invalid, since a variable name can not start with a digit

Frage **5**

Richtig

Erreichte Punkte 1,00 von 1,00

After the line

```
a = 4.0
```

the variable "a" will reference to

- ☐ a. an integer object with value four
- ☐ b. two integer objects with value four and zero
- ☐ c. an integer object with value forty
- ☒ d. a float object with value four



Die richtige Antwort ist: a float object with value four

Frage **6**

Richtig

Erreichte Punkte 1,00 von 1,00

The code

```
a = [str(i) for i in range(3)]
```

will

- ☒ a. create a list ["0", "1", "2"]
- ☐ b. create a tuple ("0", "1", "2")
- ☐ c. create a set {"0", "1", "2"}
- ☐ d. fail because this is not valid Python



Die richtige Antwort ist: create a list ["0", "1", "2"]

Frage **7**

Richtig

Erreichte Punkte 1,00 von 1,00

Assume variable "a" references a string object with content "123". After the line

```
c = len(a)
```

the variable "c" will reference

- ☐ a. an string object with content "3"
- ☒ b. an integer object with content 3
- ☐ c. an string object with content "6"
- ☐ d. an integer object with content 6



Die richtige Antwort ist: an integer object with content 3

Frage **8**

Richtig

Erreichte Punkte 1,00 von 1,00

Which output, if any, would be generated by the following code?

```
true = True
false = False
if false:
    print("First output!")
elif false:
    print("Second output!")
elif false:
    print("Third output!")
else:
    print("Last output!")
```

- ☐ a. "First output!" "Second output!" "Third output!"
- ☐ b. No output would be generated
- ☐ c. "First output!" "Second output!" "Third output!" "Last output!"
- ☒ d. "Last output!"



Die richtige Antwort ist: "Last output!"

Frage **9**

Richtig

Erreichte Punkte 1,00 von 1,00

The lines

```
a = [1, 2, 3]
b = a
```

would

- ☐ a. create one list object, which is referenced by variable "a", and then compare it to variable "b".
- ☒ b. create one list object, which is referenced by variables "a" and "b".
- ☐ c. fails, since lists are not mutable.
- ☐ d. create two list objects, which are referenced by variables "a" and "b".



Die richtige Antwort ist: create one list object, which is referenced by variables "a" and "b".

Frage **10**

Richtig

Erreichte Punkte 1,00 von 1,00

After the line

```
a = 4
```

the variable "a" will

- ☐ a. reference a bool object
- ☐ b. reference a float object
- ☒ c. reference an integer object
- ☐ d. reference a string object



Die richtige Antwort ist: reference an integer object


Frage **11**

Richtig

Erreichte Punkte 1,00 von 1,00

Assume that function `a_function()` raises a `ValueError`. What will the following code do?

```
try:
    a_function()
except ValueError:
    print("there was an exception!")
    raise TypeError
```

- ☐ a. It will fail since there is no "finally" statement.
- ☒ b. It will print "there was an exception!" and raise a `TypeError`. 
- ☐ c. It will print "there was an exception!" and continue without raising an exception.
- ☐ d. It will print "there was an exception!" and raise a `ValueError`.


Die richtige Antwort ist: It will print "there was an exception!" and raise a `TypeError`.

Frage **12**

Richtig

Erreichte Punkte 1,00 von 1,00

What does a "bit" refer to?

- ☐ a. It refers to 32 or 64 bytes, depending on the operating system
- ☐ b. It represents 1 byte (it's a synonym).
- ☒ c. It represents a logical state with one of two possible values. 
- ☐ d. It refers to 8 bytes.


Die richtige Antwort ist: It represents a logical state with one of two possible values.

Frage **13**

Richtig

Erreichte Punkte 1,00 von 1,00

What does a "byte" refer to?

- ☐ a. It refers to 1 bit (it's a synonym)
- ☒ b. It refers to 8 bits 
- ☐ c. It refers to 32 or 64 bits, depending on the operating system
- ☐ d. It refers to 2 bits

Die richtige Antwort ist: It refers to 8 bits

Frage **14**

Richtig

Erreichte Punkte 1,00 von 1,00

The line

```
(1, 'a', 1.0)
```

would

- ☐ a. create a dictionary containing an integer 1, a string 'a', and a float 1.0
- ☒ b. create a tuple containing an integer 1, a string 'a', and a float 1.0
- ☐ c. create a list containing an integer 1, a string 'a', and a float 1.0
- ☐ d. fail since list and tuple elements have to have the same data type, which is not the case here



Die richtige Antwort ist: create a tuple containing an integer 1, a string 'a', and a float 1.0

Frage **15**

Richtig

Erreichte Punkte 1,00 von 1,00

Assume variable "var" references a list ['a', 'b', 'c']. The line

```
var[1]
```

would

- ☐ a. return the first element 'a' in the list
- ☐ b. return the last element 'c' in the list
- ☐ c. return all list elements after the first one
- ☒ d. return the second element 'b' in the list



Die richtige Antwort ist: return the second element 'b' in the list

Frage **16**

Richtig

Erreichte Punkte 1,00 von 1,00

The line

```
list(range(5))
```

would

- ☐ a. return a list with only one element, which is the integer 5
- ☐ b. return a list of 5 random integer numbers
- ☒ c. return a list of integers from 0 to 5, excluding the 5
- ☐ d. return a list with only one element, which is the sum of integers 0 to 5



Die richtige Antwort ist: return a list of integers from 0 to 5, excluding the 5

Frage **17**

Richtig

Erreichte Punkte 1,00 von 1,00

Consider the code

```
def fun(n):  
    if n == 1:  
        return 1  
    return 1 + fun(n - 1)
```

What is the result for the function call fun(0)?

- ☐ a. 0
- ☐ b. Positive infinity
- ☒ c. There is no result, since it produces an endless recursion.
- ☐ d. 1



Die richtige Antwort ist: There is no result, since it produces an endless recursion.



Frage **18**

Richtig

Erreichte Punkte 1,00 von 1,00

After the execution of the following code, which statement would be correct?

```
a = 2
b = 3
c = 1
def fun(a, b):
    c = a * 2 + b
    return c
c = fun(a=1, b=2)
```

- ☐ a. The value of variable "c" is 1.
- ☐ b. The value of variable "c" is 7.
- ☒ c. The value of variable "c" is 4.
- ☐ d. We would receive an error message (UnboundLocalError).



Die richtige Antwort ist: The value of variable "c" is 4.

Frage **19**

Richtig

Erreichte Punkte 1,00 von 1,00

Converting the boolean True to a float will

- ☐ a. fail because boolean types can not be converted to float
- ☐ b. give a float object with content 0.0
- ☒ c. give a float object with content 1.0
- ☐ d. give a float object with content -1.0



Die richtige Antwort ist: give a float object with content 1.0


Frage **20**

Richtig

Erreichte Punkte 1,00 von 1,00

After the execution of the following code, which statement would be correct?

```
a = 2
b = 3
c = 1
def fun(a, b):
    c = a * 2 + b
    return c
c = fun(b, a)
```

- ☐ a. The value of variable "c" is 7.
- ☒ b. The value of variable "c" is 8. 
- ☐ c. The value of variable "c" is 1.
- ☐ d. We would receive an error message (UnboundLocalError).


Die richtige Antwort ist: The value of variable "c" is 8.

Frage **21**

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following statements is NOT correct?

- ☒ a. A Python function must always explicitly return a value. 
- ☐ b. A Python function can have multiple "return" statements.
- ☐ c. A Python function can return different values, even of different datatypes.
- ☐ d. A Python function can optionally return a value.


Die richtige Antwort ist: A Python function must always explicitly return a value.

Frage **22**

Richtig

Erreichte Punkte 1,00 von 1,00

What does a while-loop do in Python?

- ☐ a. Given an integer, it loops over a block of code where the number of iterations is specified by the integer
- ☐ b. Given an iterable, such as a list, it loops over the iterable and returns the current element of the iterable at each iteration
- ☐ c. Given an iterable, such as a list, it loops over the iterable and returns the index of the current element of the iterable at each iteration
- ☒ d. Given a boolean condition, it loops over a block of code as long as the condition evaluates to True 

Die richtige Antwort ist: Given a boolean condition, it loops over a block of code as long as the condition evaluates to True


Frage **23**

Richtig

Erreichte Punkte 1,00 von 1,00

After the execution of the following code, which statement would be correct?

```
a = 2
b = 3
c = 1
def fun(a, b):
    c = a * 2 + b
    return c
c = fun(1, 2)
```

- ☐ a. We would receive an error message (UnboundLocalError).
- ☒ b. The value of variable "c" is 4. 
- ☐ c. The value of variable "c" is 7.
- ☐ d. The value of variable "c" is 1.

Die richtige Antwort ist: The value of variable "c" is 4.

Frage **24**

Richtig

Erreichte Punkte 1,00 von 1,00

Given a function

```
def fun(b):  
    b[0] = 'first'  
    return b
```

what would be the result of fun([0,1,2])?

- ☐ a. [0,1,2]
- ☒ b. ['first',1,2]
- ☐ c. 'first'
- ☐ d. ['first','first','first']



Die richtige Antwort ist: ['first',1,2]

Frage **25**

Richtig

Erreichte Punkte 1,00 von 1,00

Assume that function a\_function() does not raise any exceptions. What will the following code do?

```
try:  
    a_function()  
except ValueError:  
    print("there was an exception!")  
    raise TypeError  
finally:  
    print("done!")
```

- ☒ a. It will print "done!" and continue without raising an exception.
- ☐ b. It will print "done!" and continue to raise a TypeError.
- ☐ c. It will print "there was an exception!" and "done!" and raise a TypeError.
- ☐ d. It will not print anything and continue without raising an exception.



Die richtige Antwort ist: It will print "done!" and continue without raising an exception.

Frage **26**

Richtig

Erreichte Punkte 1,00 von 1,00

The line

```
a == b
```

would

- ☐ a. assign the object referenced to by variable "a" to variable "b".
- ☒ b. check if variables "a" and "b" reference objects with the same numerical value. ✔
- ☐ c. assign the object referenced to by variable "b" to variable "a".
- ☐ d. check if variables "a" and "b" reference the same object.

Die richtige Antwort ist: check if variables "a" and "b" reference objects with the same numerical value.

◀ Presence in lecture hall

Direkt zu: