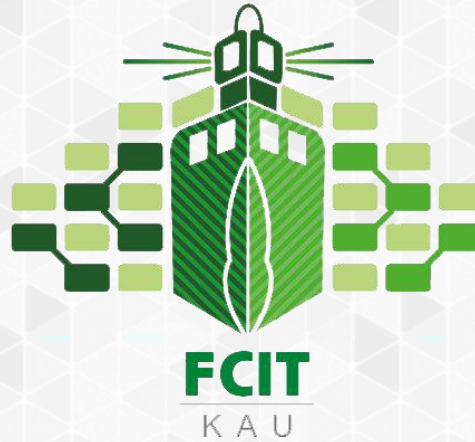


**FACULTY OF COMPUTING  
& INFORMATION TECHNOLOGY**

KING ABDULAZIZ UNIVERSITY



**كلية الحاسبات  
وتقنية المعلومات**

جامعة الملك عبدالعزيز

# Sample Exam Questions

## Chapter 6 (MCQ)

---

CPIT 110 (Problem-Solving and Programming)



## تنبيه!

- هذه الأسئلة عبارة عن عينة فقط توضح طريقة أسئلة (الاختيارات) لمقرر البرمجة وحل المشكلات (CPIT-110).
- هذه الأسئلة لا يُعتمد عليها فقط للمذاكرة.
- قد لا تشمل هذه الأسئلة جميع المواضيع المقررة للاختبار.
- هذه الأسئلة مناسبة للمراجعة بعد الانتهاء من مذاكرة وتطبيق المواضيع المقررة للاختبار.
- حلول الأسئلة مرفقة نهاية صفحات هذا الملف.

# Chapter 6: Functions

## Questions

# Question

## #1

If a function does not return a value, by default, it returns \_\_\_\_\_.

- a) None
- b) Integer
- c) Float
- d) String

# Question

## #2

The header of a function consists of \_\_\_\_\_.

- a) function name
- b) function name and parameter list
- c) parameter list
- d) return statement

# Question

## #3

A function \_\_\_\_\_.

- a) must have at least one parameter
- b) may have no parameters
- c) must always have a return statement to return a value
- d) must always have a return statement to return multiple values

# Question

## #4

Arguments to functions always appear within \_\_\_\_\_.

- a) brackets
- b) parentheses
- c) curly braces
- d) quotation marks

# Question

## #5

Does the function call in the following function cause syntax errors?

```
import math
def main():
    math.sin(math.pi)
```

```
main()
```

a) Yes

b) No



# Question

## #6

Each time a function is invoked, the system stores parameters and local variables in an area of memory, known as \_\_\_\_\_, which stores elements in last-in first-out fashion.

- a) a heap
- b) storage area
- c) a stack
- d) an array

# Question

## #7

Which of the following should be defined as a None function?

- a) Write a function that prints integers from 1 to 100.
- b) Write a function that returns a random integer from 1 to 100.
- c) Write a function that checks whether a number is from 1 to 100.
- d) Write a function that converts an uppercase letter to lowercase.

# Question

## #8

A function with no return statement returns \_\_\_\_\_.

- a) `void`
- b) `1`
- c) `0`
- d) `None`

# Question

## #9

Consider the following incomplete code:

```
def f(number):  
    # Missing function body  
print(f(5))
```

The missing function body should be \_\_\_\_\_.

- a) `return "number"`
- b) `print(number)`
- c) `print("number")`
- d) `return number`

# Question

## #10

Given the following function header:

```
def f(p1, p2, p3, p4)
```

Which of the following is correct to invoke it?

a) `f(1, 2, 3, 4)`

b) `f(p1 = 1, 2, 3, 4)`

c) `f(p1 = 1, p2 = 2, p3 = 3, 4)`

d) `f(p1 = 1, p2 = 2, p3 = 3, p2 = 4)`

# Question

## #11

Given the following function header:

```
def f(p1, p2, p3, p4)
```

Which of the following is correct to invoke it?

a) `f(1, 2, 3)`

b) `f(p1 = 1, 2, 3, 4)`

c) `f(p1 = 1, p2 = 2, p3 = 3, 4)`

d) `f(p1 = 1, p2 = 2, p3 = 3, p4 = 4)`

# Question

## #12

Given the following function header:

```
def f(p1, p2, p3, p4)
```

Which of the following is correct to invoke it?

a) `f()`

b) `f(p1 = 1, 2, 3, 4)`

c) `f(p1 = 1, p2 = 2, p3 = 3, 4)`

d) `f(1, 2, 3, p4 = 4)`

# Question

## #13

Given the following function:

```
def nPrint(message, n):  
    while n > 0:  
        print(message, end="")  
        n -= 1
```

What will be displayed by the call `nPrint('a', 4)`?

- a) aaaaaa
- b) aaaa
- c) aaa
- d) invalid call
- e) infinite loop



# Question

## #14

Given the following function:

```
def nPrint(message, n):  
    while n > 0:  
        print(message)  
    n -= 1
```

What will be displayed by the call `nPrint('a', 4)`?

- a) aaaaaa
- b) aaaa
- c) aaa
- d) invalid call
- e) infinite loop

# Question

## #15

Given the following function:

```
def nPrint(message, n):  
    while n > 0:  
        print(message)  
        n -= 1
```

What is k after invoking `nPrint("A message", k)`?

`k = 2`

`nPrint("A message", k)`

- a) 0
- b) 1
- c) 2
- d) 3

# Question

## #16

Given the following function:

```
def nPrint(message, n):  
    while n > 0:  
        print(message)  
        n -= 1
```

What is k after invoking `nPrint("A message", k)`?

```
k = 2
```

```
nPrint(n = k, message = "A message")
```

- a) 0
- b) 1
- c) 2
- d) 3

# Question

## #17

A variable defined inside a function is referred to as \_\_\_\_\_.

- a) a global variable
- b) a function variable
- c) a block variable
- d) a local variable

# Question

## #18

A variable defined outside a function is referred to as \_\_\_\_\_.

- a) a global variable
- b) a function variable
- c) a block variable
- d) a local variable

# Question

## #19

Whenever possible, you should avoid using \_\_\_\_\_.

- a) global variables
- b) function parameters
- c) global constants
- d) local variables

# Question

## #20

What will be displayed by the following code?

```
x = 1
def f1():
    y = x + 2
    print(y, end=" ")
f1()
print(x)
```

a) 1 3

b) 3 1

c) The program has a runtime error because x is not defined.

d) 1 1

e) 3 3

# Question

## #21

What will be displayed by the following code?

```
x = 1
def f1():
    x = 3
    print(x, end=" ")
f1()
print(x)
```

- a) 1 3
- b) 3 1
- c) The program has a runtime error because x is not defined.
- d) 1 1
- e) 3 3



# Question

## #22

What will be displayed by the following code?

```
x = 1
def f1():
    x = x + 2
    print(x, end=" ")
f1()
print(x)
```

- a) 1 3
- b) 3 1
- c) The program has a runtime error because x is not defined.
- d) 1 1
- e) 3 3

# Question

## #23

What will be displayed by the following code?

```
x = 1
def f1():
    global x
    x = x + 2
    print(x, end=" ")
f1()
print(x)
```

- a) 1 3
- b) 3 1
- c) The program has a runtime error because x is not defined.
- d) 1 1
- e) 3 3

# Question

## #24

What will be displayed by the following code?

```
def f1(x = 1, y = 2):  
    x = x + y  
    y += 1  
    print(x, y)  
  
f1()
```

- a) 1 3
- b) 3 1
- c) The program has a runtime error because x and y are not defined.
- d) 1 1
- e) 3 3

# Question

## #25

What will be displayed by the following code?

```
def f1(x = 1, y = 2):
```

```
    x = x + y
```

```
    y += 1
```

```
    print(x, y)
```

```
f1(2, 1)
```

a) 1 3

b) 2 3

c) The program has a runtime error because x and y are not defined.

d) 3 2

e) 3 3

# Question

## #26

What will be displayed by the following code?

```
def f1(x = 1, y = 2):
```

```
    x = x + y
```

```
    y += 1
```

```
    print(x, y)
```

```
f1(y = 2, x = 1)
```

a) 1 3

b) 2 3

c) The program has a runtime error because x and y are not defined.

d) 3 2

e) 3 3

# Question

## #27

Which of the following function headers is correct?

- a) `def f(a = 1, b):`
- b) `def f(a = 1, b, c = 2):`
- c) `def f(a = 1, b = 1, c = 2):`
- d) `def f(a = 1, b = 1, c = 2, d):`

# Question

## #28

What will be displayed by the following code?

```
def hello():  
    print("Hello")  
  
def hello(name = "Ahmad"):  
    print("Hi", name)  
  
hello()
```

- a) Hello
- b) Hi
- c) Hi Ahmad
- d) Hello Ahmad

# Question

## #29

What will be displayed by the following code?

```
def hello():  
    print("Hello")  
  
def hello(name = "Ahmad", age):  
    print("Name:", name, ", Age:", age)  
  
hello(24)
```

- a) Name: Ahmad, Age: 24
- b) Name: None, Age: 24
- c) Name: , Age: 24
- d) Syntax Error



# Question

## #30

What will be displayed by the following code?

```
def f1(x = 1, y = 2):  
    return x + y, x - y  
x, y = f1(y = 2, x = 1)  
print(x, y)
```

- a) 1 3
- b) 3 1
- c) The program has a runtime error because the function returns the multiple values
- d) 3 -1
- e) -1 3

# Solutions

Question #	Correct Answer
1	A
2	B
3	B
4	B
5	B
6	C
7	A
8	D
9	D
10	A

Question #	Correct Answer
11	D
12	D
13	B
14	E
15	C
16	C
17	D
18	A
19	A
20	B

# Solutions

Question #	Correct Answer
21	B
22	C
23	E
24	E
25	D
26	E
27	C
28	C
29	D
30	D