Unit 3 Concepts and Coding Test

Firia Labs Concepts and Coding from CodeX Missions 9-12

* Indicates required question

1. Student Name *

2. The code is an example of: * 1 point

```
if choice == 1 and x < 120:
    color = RED
```

Mark only one oval.

- A function
- A parameter
- A control variable
- A logical operator

3. When will the loop stop? * 1 point

```
index = 0
while index < 5:
    index = index + 1
```

Mark only one oval.

- When index = 5
- When index = 4
- When index = 6
- When index is incremented

4. How many times will the loop execute? * 1 point

```
index = 0
while index < 8:
    display.show(index)
    index = index + 1
```

Mark only one oval.

- ◯ 1 time
- ◯ 7 times
- ◯ 8 times
- ◯ infinite loop

5. The highlighted code is an example of: * 1 point

```
def turn_on(pix):
    count = 0
    while count < pix:
        pixels.set(pix, GREEN)
        count = count + 1

turn_on(2)
```

Mark only one oval.

- ◯ A function definition
- ◯ A function call
- ◯ An argument
- ◯ A parameter

6. The highlighted code is an example of: * 1 point

```
def turn_on(pix):
    count = 0
    while count < pix:
        pixels.set(pix, GREEN)
        count = count + 1

turn_on(2)
```

Mark only one oval.

- A loop control variable
- A function call
- An argument
- A parameter

7. The highlighted code is an example of: * 1 point

```
def turn_on(pix):
    count = 0
    while count < pix:
        pixels.set(pix, GREEN)
        count = count + 1

turn_on(2)
```

Mark only one oval.

- A loop control variable
- Increment a control variable
- An argument
- A parameter

8. The highlighted code is an example of: * 1 point

```
def turn_on(pix):
    count = 0
    while count < pix:
        pixels.set(pix, GREEN)
        count = count + 1

turn_on(2)
```

Mark only one oval.

- A function definition
- A function call
- An argument
- A parameter

9. The highlighted code is an example of: * 1 point

```
def turn_on(pix):
    count = 0
    while count < pix:
        pixels.set(pix, GREEN)
        count = count + 1

turn_on(2)
```

Mark only one oval.

- A function definition
- A function call
- An argument
- A parameter

10. The highlighted code is an example of: * 1 point

```
def turn_on(pix):
    count = 0
    while count < pix:
        pixels.set(pix, GREEN)
        count = count + 1

turn_on(2)
```

Mark only one oval.

- A function definition
- A function call
- An argument
- A parameter

11. What code correctly defines a function with a parameter? * 1 point

Mark only one oval.

- def turn_on(pix):
- def turn_on(3)
- turn_on(3)
- turn_on(pix):

12. What code correctly calls a function with a parameter? * 1 point

Mark only one oval.

- def turn_on(pix):
- def turn_on(3)
- turn_on(3)
- turn_on(pix):

13. What variable is the loop control variable? * 1 point

```
def diplay_score(num):
    end_value = 10
    count = 0
    score = num
    while count < end_value:
        display.print(score)
        count = count + 1
```

Mark only one oval.

- num
- end_value
- score
- count

14. What code will turn off all pixels? * 1 point

Mark only one oval.

- pixels.off()
- pixels.set([BLACK, BLACK, BLACK, BLACK])
- display.pixels_off()
- pixels.set([BLACK])

15. What programming concept can you use to turn on all pixels with one line of code? * 1 point

Mark only one oval.

- A variable
- A function
- A parameter
- A list

16. What code will turn the display screen black? * 1 point

Mark only one oval.

- display.clear()
- clear.display()
- display.black()
- display.off()

17. What function will get the current clock time? * 1 point

Mark only one oval.

- time()
- ticks()
- ticks_ms()
- clicks()

18. What function will subtract two clock times? * 1 point

Mark only one oval.

- ticks_subtract()
- ticks_diff()
- diff_ticks()
- ticks_ms()

19. What function returns data from the accelerometer? * 1 point

Mark only one oval.

- read.accel()
- accel.data()
- accel.read()
- return.accel()

20. Given this code, what direction value will "tilt" be assigned? * 1 point

```
val = accel.read()
tilt = val[1]
```

Mark only one oval.

- x
- y
- z
- (x, y, z)

21. Which of the following values is NOT a tuple? * 1 point

Mark only one oval.

- "Hello"
- (x, y)
- (red, green, blue)
- (x, y, z)

22. What is the purpose of this code? * 1 point

```
x = CENTER
```

Mark only one oval.

- A variable that determines the center of the circle
- A variable that determines the center of the display
- A variable that is assigned the tilt of the circle
- A variable that is assigned the x position of the circle

23. What is the purpose of this code: * 1 point

```
display.draw_circle(x, CENTER, 15, WHITE)
x = CENTER + degrees
display.draw_circle(x, CENTER, 15, ORANGE)
```

Mark only one oval.

- Determines the center of the display
- Draws a new circle and then erases it
- Draws two circles on the display
- Erases the circle, gets a new value for x, and then draws a new circle

24. What function is used to read a light sensor? * 1 point

Mark only one oval.

- read.light()
- light.read()
- read()
- light()

25. What function is used to set all pixels the same color? * 1 point

Mark only one oval.

- pixels.set(BLUE)
- pixels.set(0, BLUE)
- pixels.fill(BLUE)
- fill.pixels(BLUE)

26. What code will vary the brightness of pixels? * 1 point

Mark only one oval.

- pixels.BLUE(20)
- fill.pixels(BLUE, brightness=20)
- brightness(20)
- pixels.fill(BLUE, brightness=20)