Mission 3 - Pre-Flight Check Review Questions

1	Select the computer science definition of: EMBEDDED SYSTEMS PROGRAMMING	a. Repeating a sequence of some kind. b. Named values that don't change during program execution. c. Code that runs one line at a time, in order. d. Code that runs on a tiny microcontroller inside an electronic device.
2	Select the computer science definition of: SEQUENCE	a. Repeating a sequence of some kind. b. Named values that don't change during program execution. c. Code that runs one line at a time, in order. d. Code that runs on a tiny microcontroller inside an electronic device.
3	Select the computer science definition of: ITERATION	a. Repeating a sequence of some kind. b. Named values that don't change during program execution. c. Code that runs one line at a time, in order. d. Code that runs on a tiny microcontroller inside an electronic device.
4	Select the computer science definition of: CONSTANT	a. Repeating a sequence of some kind. b. Named values that don't change during program execution. c. Code that runs one line at a time, in order. d. Code that runs on a tiny microcontroller inside an electronic device.
5	What does this code do? `sleep(0.1)`	a. Pauses the program for 0.1 seconds b. Pauses the program for 1 second c. Turns off the drone motors for 0.1 seconds d. Disables the LEDs for 1 second
6	What does this code do? `leds.set(0, 0)`	a. Turns on LED 0 b. Turns off LED 0 c. Blinks LED 0 d. An error occurs

7	What does this code do?
	`leds.set(1, 50)`
	`sleep(0.1)`
	`leds.set(1, 0)`
		a. Turns on the 1st and 2nd LEDs
		b. Pauses the program while the LED turns on and off
		c. Blinks the first LED
		d. Blinks the second LED

8	What code will turn on the LED by the USB connector?	a. leds.set(0) b. leds.status(0) c. leds.set_status(50) d. leds.set_status(1, 50)
9	What code will play a note on the speaker?	a. spkr.pitch(440) b. spkr.beep(G5) c. speaker.beep(440, 200) d. speaker.beep(G5)

10	What line of code defines a constant?	a. G5 = 784 b. sleep(0.1) c. from time import sleep d. for n in range(8):
11	What makes up an RGB color?	a. (red, yellow, blue) b. (red, green, blue) c. (pixel) d. pixels.set()

12	Given the code, how many times will “hello” print?
	`x = 0`
	`while x < 5:`
	`  print('hello')`
	`  x = x + 1`
		a. 1 time
		b. 4 times
		c. 5 times
		d. An error occurs

13	What is the code for an infinite loop?	a. while x < 4: b. while True: c. for n in range(3): d. for n in (RED, GREEN, BLUE):
14	Given the code, what are the values of **range**? `range(4)`	a. 1, 2, 3, 4 b. 1, 2, 3 c. 0, 1, 2, 3 d. 0, 1, 2, 3, 4

15	Given the code, what are the values of **n** that are printed?
	`for n in range(3):`
	`  print(n)`
		a. 1, 2, 3
		b. 0, 1, 2
		c. 0, 1, 2, 3
		d. 1, 2

16	What code will set the 2nd pixel RED?	a. pixels.set(2, RED) b. pixels.set(RED, 2) c. pixels.set(1) d. pixels.set(1, RED)
17	What code will turn off the last pixel?	a. pixels.set(8, BLACK) b. pixels.set(8, off) c. pixels.off() d. pixels.set(7, BLACK)

18	What does this code do?
	`for color in (RED, GREEN, BLUE):`
	`  for n in range(8):`
	`  pixels.set(n, color)`
	`  sleep(0.05)`
		a. Sets each pixel red, then green, then blue
		b. Blinks each pixel three times
		c. Sets one pixel red, the next green, then next blue and so forth
		d. An error will occur

19	What does this code do? `pixels.fill(WHITE, brightness=50)`	a. Turns the first pixel white, the others off b. Turns all LEDs on with a brightness of 50 c. Turns all pixels white with a brightness of 50 d. Blinks all pixels white 50 times
20	Besides a number, a pixel can also be referenced using:	a. A constant for its position b. Its position c. A constant for its color d. Its brightness level