Mission 5 - Hovering Flight Review Questions

1	Select the computer science definition of: MODULE	a. A function that prevents the next line of code from executing until it is completed. b. Interactively enter commands in the console and view output. c. An external source of code that can be imported. d. A function that returns immediately so the next line of code can execute.
2	Select the computer science definition of: BLOCKING	a. A function that prevents the next line of code from executing until it is completed. b. Interactively enter commands in the console and view output. c. An external source of code that can be imported. d. A function that returns immediately so the next line of code can execute.
3	Select the computer science definition of: NON-BLOCKING	a. A function that prevents the next line of code from executing until it is completed. b. Interactively enter commands in the console and view output. c. An external source of code that can be imported. d. A function that returns immediately so the next line of code can execute.
4	Select the computer science definition of: REPL	a. A function that prevents the next line of code from executing until it is completed. b. Interactively enter commands in the console and view output. c. An external source of code that can be imported. d. A function that returns immediately so the next line of code can execute.
5	Which CodeAIR sensor is used for tracking and holding position?	a. Pressure sensor b. Laser rangers c. Optical flow sensor d. Light sensor
6	What must be included in your code to call the button_arm() function	a. def button_arm(): b. from safety import * c. from codeair import * d. while True:
7	What is CodeAIR's distance measured with?	a. Inches b. Feet c. Centimeters d. Meters
8	What is a key component for keeping the drone flying at a desired altitude?	a. Laser rangers b. Pressure sensor c. Optical flow sensor d. Light sensor

9	What function reads the laser rangers?	a. data(RANGERS) b. rangers.data() c. get_data(RANGERS) d. rangers.read()
10	What line of code unpacks the tuple returned by get_data()?	a. get_data.unpack() b. fwd, up, down = get_data() c. get_data() = fwd, up, down d. (fwd, up, down) = get_data()

11	What is the result of the code?
	`too_close = 300`
	`up = 250`
	`if up < too_close:`
	`    return True`
		a. True is returned
		b. False is returned
		c. Nothing happens
		d. The program stops

12	What is the result of the code?
	`up = 350`
	`too_close = 300`
	`if up < too_close:`
	`    return True`
		a. True is returned
		b. False is returned
		c. Nothing happens
		d. The program stops

13	What is the purpose of the code?
	`ticks = 30`
	`for i in range(ticks):`
	`    fly.steady(0.1)`
	`    fwd, up, down = get_data(RANGERS)`
	`    if fwd < too_close:`
	`        return True`
	`return False`
		a. Hover at the given distance
		b. Set the sensors every tenth of a second
		c. Read the sensors every tenth of a second
		d. Poll the flight controller every tenth of a second

14	If fwd is less than 300, what is the result of the code?
	`too_close = 300`
	`for i in range(30):`
	`    fly.steady(0.1)`
	`    fwd, up, down = get_data(RANGERS)`
	`    if fwd < too_close:`
	`        return True`
	`return False`
		a. True is returned
		b. False is returned
		c. Nothing happens
		d. The program stops

15	What code will cause a continuous speaker beep?	a. speaker.beep(440) b. speaker.beep(440, 100) c. speaker.beep(440, 0) d. speaker.on()

16	What will print after this code runs?
	`count = 4`
	`count = count + 1`
	`count = count + 1`
	`print(count)`
		a. 4
		b. 5
		c. 6
		d. An error occurs

17	What will print after this code runs?
	`my_var = True`
	`my_var = not my_var`
	`print(my_var)`
		a. True
		b. False
		c. my_var
		d. An error occurs

18	Which function is non-blocking?	a. fly.steady(seconds) b. fly.take_off(altitude) c. fly.start_forward() d. fly.forward(distance, velocity)

19	What is the result of the code?
	`count = 7`
	`count = count + 1`
	`if count == 8:`
	`    pixels.fill(WHITE)`
		a. All pixels are turned WHITE
		b. Nothing happens
		c. All pixels are turned off
		d. The program stops

20	What function turns off all blue LEDs?	a. leds.set_off() b. leds.set(0) c. leds.set(BLACK) d. leds.set_mask(0, 0)