Module 2: Interrupt, PWM, ADC, RTC

* Indicates required question

1. Email *

2. Enrollment Number *

3. Name *

MCQ

4. The on time of a square wave is 1 ms and off time is 3 ms. Calculate the duty cycle 1 point

Mark only one oval.

- 30%
- 33%
- 25%
- 40%

5. Which of the following commands are used to create PWM object 1 point

Mark only one oval.

- pwm0 = PWM(Pin(0))
- pwm0 = pwm(Pin(0))
- pwm0 = PWM(freq(1000))
- pwm0 = PWM(duty(50))

6. For a PWM wave, the maximum voltage is 5V and minimum voltage is 0V, duty cycle is 25%. Calculate average voltage 1 point

Mark only one oval.

- 5V
- 2.5V
- 1.25V
- 0.625
- Other:

7. For a 8 bit analog to digital converter with reference voltage is 2.56 volts, What will be the value of Dout(Decimal Equivalent) when the input voltage is 1.7V. 1 point

Mark only one oval.

- 17
- 170
- 80
- 256

8. A PWM wave generated using ESP32 having maximum voltage of 5V and minimum voltage of 0V, the required average voltage is 2.5 volts. What will be the value of x in: pwm.duty(x) 1 point

Mark only one oval.

- 256
- 512
- 1023
- 250

9. For a 8 bit analog to digital converter with reference voltage is 2.56 volts, Calculate step size 1 point

Mark only one oval.

- 8mV
- 2.56mV
- 10mV
- 256mV

10. It is possible to change bit width of ADC on ESP32 using microPython 1 point

Mark only one oval.

- True
- False

11. It is possible to change input attenuation of ADC on ESP32 using microPython 1 point

Mark only one oval.

- True
- False

12. LDR is used to _____ 1 point

Mark only one oval.

- measure light
- control AC load
- measure temperature
- control DC load

13. Relay is used to _____ (Multiple Answers can be correct) 1 point

Check all that apply.

- [ ] measure light
- [ ] control AC load
- [ ] measure temperature
- [ ] control DC load

14. PWM stands for 1 point

Mark only one oval.

- Pulse Width Multiple
- Pulse Width Modulation
- Progress Well Modulation
- Progress Well Multiple

15. Which ESP32 block is used to control the speed of DC Motor 1 point

Mark only one oval.

- ADC
- PWM
- AES
- Touch

16. Hall sensor on esp32 is used to detect_____ 1 point

Mark only one oval.

- Magnetic field
- Electric Field
- Temperature
- Capacitive Touch

17. Touch sensor on ESP32 uses the _____ property 1 point

Mark only one oval.

- capacitive
- resistive
- inductive
- frequency