INTERNAL ASSESSMENT 2

Total points 10/10

SECOND YEAR SEM-IV LIC

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✓ 1)Free running frequency of Astable multivibrator? * 1/1

- (●) f=1.45/(RA+2RB)C ✓
- ( ) f=1.45/(RA+RB)C
- ( ) f=1.45C/(RA+2RB)
- ( ) f=1.45C/(RA+RB)

✓ 2)The time period of a monostable 555 multivibrator. * 1/1

- ○ T = 0.33RC
- ◉ T = 1.1RC ✓
- ○ T = 3RC
- ○ T = RC

✓ 3)To achieve 50% duty cycle in adjustable rectangular wave generator? (Assume R1 –> Resistor connected between supply and discharge and R2 –> Resistor connected between discharge and trigger input.) * 1/1

- ○ R1 < R2
- ○ R1 > R2
- ◉ R1 = R2 ✓
- ○ R1 ≥ R2

✓ 4)What are the typical values of Vref and Iadj for the LM317 adjustable voltage regulator? * 1/1

- ○ 1.0 V, 100 mA
- ○ 1.5 V, 100 mA
- ◉ 1.25 V, 100 µA ✓
- ○ 1.25 V, 10 Ma

✓ 5)The 7805 regulator IC provides output voltage * 1/1

- (●) 5 V ✓
- ( ) −5 V
- ( ) 12 V
- ( ) −12 V

✓ 6) In IC LM 723, Vref and Vsense are * 1/1

- ( ) 0.7V and 7V respectively
- (●) 7V and 0.7V respectively ✓
- ( ) 1.25V and 0.7V respectively
- ( ) 0.7V and 1.25V respectively
- ( ) Other: _____

✓ 7)The 7912 regulator IC provides output voltage * 1/1

- ( ) 5 V
- ( ) −5 V
- ( ) 12 V
- (●) −12 V ✓

✓ 8) Which of the following is not a basic element of a phase-locked loop circuit? * 1/1

- ○ phase detector
- ◉ parallel tuned circuit ✓
- ○ voltage-controlled oscillator
- ○ low-pass filter

✓ 9)The value of external timing capacitor, if no modulating input signal is applied to VCO, consider fo=25 kHz and RT=5 kΩ. * 1/1

- ○ 6nF
- ○ 100μF
- ◉ 2nF ✓
- ○ 10nF

✓ 10)Voltage to frequency conversion factor for VCO is * 1/1

- ○ Kv = △Vc/ △fo
- ◉ Kv = △fo/△Vc ✓
- ○ Kv = △fo × △Vc
- ○ Kv = 1/(△fo×△Vc)