



## **INSTRUMENTATION ENGINEERING**

**Q1.** What is the principle of the pneumatic load cell?

- Force counter balance
- Force balance principle
- Electromechanical principle
- Magneto-elastic principle

**Q2.** In which of the following registers does the microcontroller automatically set the TFx bit, when a timer overflows from its highest value back to 0?

- o TLO
- o THO
- o TH1
- o TCON

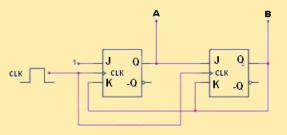
Q3. The output transform of first-order systems for unit-impulse response is:

• 
$$Y(s) = 1/(sT + 1)$$

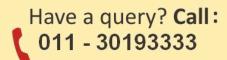
- $Y(s) = 1/\{s (sT+1)\}$
- $Y(s) = 1/\{s^2(sT+1)\}$
- $\circ \quad \mathbf{Y}(\mathbf{s}) = 1/(\mathbf{s}\mathbf{T})$

Q4. In the given circuit, the duty cycle of output B is \_\_\_\_\_.

- 25%
  33.33%
  50%
- 66.66%



Q5. Which kind of filter does the given Op-amp-RC circuit realize?





- o Band Pass Filter
- o Low Pass Filter
- High Pass Filter
- Notch filter
- o All pass filter

