A open-loop transfer function is given as,

$$G(s) = \frac{1}{s^3 + 2.0s^2 + 3.22221s + 4.44444}$$

which of the following PI-controllers does not stabilize the system in a closed-loop unit feedback structure?

(a) $F(s) = -2.6111 + \frac{0.27777}{s}$

(b) $F(s) = 1.1111 + \frac{1.22221}{s}$

(c) $F(s) = -0.8889 + \frac{2.22221}{s}$

(d) $F(s) = -0.8889 + \frac{1.1111}{s}$

(e) $F(s) = -5.8889 + \frac{1.1111}{s}$

Answer: $F(s) = -2.6111 + \frac{0.27777}{s}$