For the circuit above, the Thevenin equivalent circuit has

1. $V_T = 10 \, \text{V}, \quad R_T = 10 \, \Omega$
2. $V_T = 10 \, \text{V}, \quad R_T = 20 \, \Omega$
3. $V_T = 10 \, \text{V}, \quad R_T = 5 \, \Omega$
4. $V_T = 5 \, \text{V}, \quad R_T = 10 \, \Omega$
5. $V_T = 5 \, \text{V}, \quad R_T = 20 \, \Omega$
6. $V_T = 5 \, \text{V}, \quad R_T = 5 \, \Omega$
The open circuit voltage is given by

\[ V_{oc} = \frac{10 \, \Omega}{\frac{5 \, \Omega}{10 \, \Omega + 5 \, \Omega}} = 10 \, V = 5 \, V \]

since the circuit is basically a voltage divider, with three resistors. Therefore,

\[ V_T = V_{oc} = 5 \, V \]
To find the Thevenin equivalent resistance, set all the sources to zero, and determine the resistance looking into the terminals. A voltage source of zero strength is a short circuit, so the result is that the two $5 \, \Omega$ resistors are in series, forming an equivalent $10 \, \Omega$. This is in turn in parallel with the $10 \, \Omega$ resistor. The equivalent resistance of two $10 \, \Omega$ resistors in parallel is $5 \, \Omega$. Thus,

$$R_T = 5 \, \Omega$$

The correct answer is therefore number 6. The class did much better on the second try.