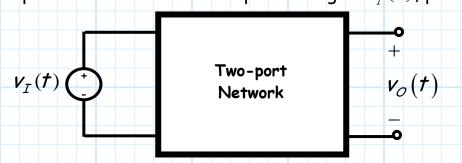
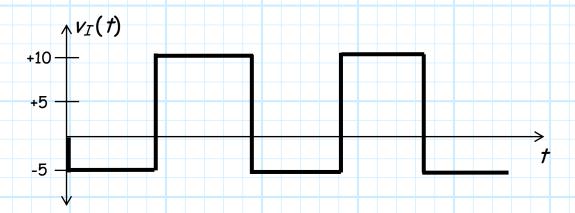
## Special Problem 3.5 -14

A two port network has at its input the signal  $v_{\tau}(t)$ , plotted below:





Say the network has the transfer function shown below, where  ${\cal A}$  and  ${\cal B}$  are unknown values.

$$v_{0}(t) = \begin{cases} 5 & if \quad v_{I} > A \\ v_{I} + B & if \quad v_{I} < 0 \end{cases}$$

- 1. Determine the values of A and B (provide justification!).
- 2. Carefully plot the output voltage  $v_o(t)$  on the graph on the next page.

