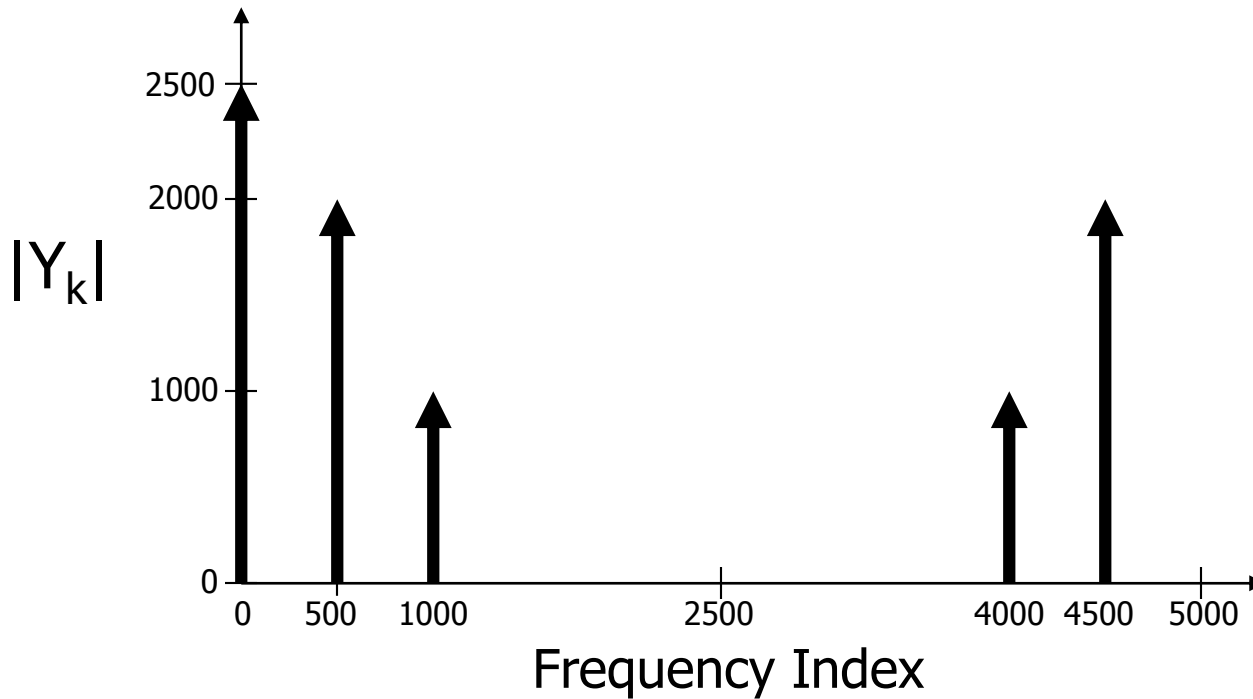1. The amplitude spectrum for a sampled signal is shown below. The signal was sampled at a rate of 5kHz and 5000 samples were collected. Determine what frequency components are present and the actual amplitude of each component. Assume that no aliasing occurs.

2. The amplitude spectrum for a sampled signal is shown below. The signal was sampled at a rate of 20kHz and 10000 samples were collected. Determine what frequency components are present and the actual amplitude of each component. Assume that no aliasing occurs.

$|Y_k|$

25000

10000

0

0   1000   2000   4000   5000   6000   8000   9000   10000

Frequency Index