Special Problem 3.5-2

The circuit below is a bridge rectifier with a slightly different configuration than shown in the text.

The diodes are IDEAL diodes.

1) Determine the transfer function of this rectifier

2) Carefully sketch below the output voltage $v_o$ if the input signal $v_i$ is that shown below.

3) What is the peak inverse voltage if the input voltage shown below is applied (I want a numerical answer)?

4) Across which diodes does this peak inverse voltage appear?