Special Problem 3.5-3

The diodes in this bridge rectifier are **IDEAL**.

Note that the total source voltage consists of an AC and a DC (1.0 V) component.

1) Determine the transfer function of this rectifier circuit.

2) Carefully **sketch below the output voltage** $v_d(t)$ if the AC signal $v_s(t)$ 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?