$\frac{\text{MAA5616/PQ-02}}{\text{1.}} \hspace{0.2in} \text{(2 pts.)} \hspace{0.2in} \text{What does it mean to say that a set U of real}$ numbers is open?? [This is a request for the definition.]

2. (2 pts.) What does it mean to say that a real number x is a point of closure of a set E of real numbers??

3. (2 pts.) What does it mean to say that a collection of sets C covers a set E of real numbers.

4. (2 pts.) How is the notion of 'closed set' defined??

5. (2 pts.) How are open sets and closed sets related??