

SEDA QUIZ

1. Where is the **lumen** of a hollow fine fiber located?
 - a) Top of the fiber
 - b) Exterior of the fiber
 - c) **Center of the fiber**
 - d) Bottom of the fiber
2. What is defined as the hydraulic driving pressure moving water through the membrane measuring the difference in pressure between 2-sides of the membrane called?
 - a) **Transmembrane pressure**
 - b) Recovery rate
 - c) Rejection rate
 - d) Concentration factor
3. In a properly functioning ultra-filtration system which parameter would you expect to pass through the membrane?
 - a) Suspended solids
 - b) **Calcium hardness**
 - c) Viruses
 - d) Bacteria
4. Which of these are not a common fouling problem of an Ultrafiltration membrane?
 - a) Particulate
 - b) Biological
 - c) Organic
 - d) **Mg**
5. If sulfide is not removed from water, how much chlorine will be required to oxidize 1ppm of sulfide?
 - a) 4.0 mg/l
 - b) 4.5 mg/l
 - c) 2.0 mg/l
 - d) **8.33 mg/l**

6. What is the concentration factor of Nano-filtration system with a recovery rate of 82%? Formula = $1 / (1 - \text{recovery rate})$
- a) **5.5**
 - b) .012
 - c) 81
 - d) 4.7
7. What is a condition in a UF membrane element in which there is no compromising of feed water into the filtrate due to broken fibers called?
- a) Membrane performance
 - b) **Membrane integrity**
 - c) Surface filtration
 - d) Luminosity
8. Which of these is not considered membrane integrity testing of an ultrafiltration system?
- a) Bubble point test
 - b) Diffusion
 - c) Pressure hold
 - d) **Pressure surge test**
9. What is called the number of hollow fiber membranes or the total usable membrane area per unit volume of a module?
- a) Membrane autopsy
 - b) Membrane mesh size
 - c) **Membrane packing density**
 - d) Membrane coefficient.
10. What is called a grouping of hollow fine fibers or hollow fine membranes placed inside a pressure vessel called?
- a) Membrane element
 - b) Membrane mode
 - c) **Membrane bundle**
 - d) Membrane coefficient