Unit 8 - Week 6: Reverse Osmosis and Nanofiltration

Assignment 06

The task is to submit an assignment no later than 2020-03-11, 23:59. Be on time and complete the assignment.

1. Write an essay for the following statement: Direct pressure to the applied pressure
   a. The applied pressure is greater than the osmotic pressure.
   b. The applied pressure is less than the osmotic pressure.

2. If the process operates at a pressure equal to the osmotic pressure of the feed, the water flux is:
   a. Low
   b. High
   c. Medium

3. The structural integrity of a membrane is:
   a. Membrane structure
   b. Membrane toughness
   c. Membrane porosity

4. The membrane material is:
   a. Aromatic
   b. Aliphatic
   c. Hydrophobic

5. The temperature dependence of solvent viscosity is:
   a. Zero
   b. Linear
   c. Non-linear

6. The rejection capacity of a membrane increases with:
   a. Temperature increase
   b. Pressure increase
   c. Flux increase

7. The rejection capacity is:
   a. Temperature dependent
   b. Pressure dependent
   c. Flux dependent

8. The diffusion coefficient is:
   a. Temperature dependent
   b. Pressure dependent
   c. Flux dependent

9. The membrane permeability is:
   a. Temperature dependent
   b. Pressure dependent
   c. Flux dependent

10. The recovery ratio is:
    a. Temperature dependent
    b. Pressure dependent
    c. Flux dependent

11. The membrane rejection is dependent on:
    a. Temperature
    b. Pressure
    c. Flux

12. The concentration polarization is:
    a. Temperature dependent
    b. Pressure dependent
    c. Flux dependent

13. The energy consumption is:
    a. Temperature dependent
    b. Pressure dependent
    c. Flux dependent

14. The mass transfer is:
    a. Temperature dependent
    b. Pressure dependent
    c. Flux dependent

15. The membrane fouling is:
    a. Temperature dependent
    b. Pressure dependent
    c. Flux dependent

16. The membrane cleaning is:
    a. Temperature dependent
    b. Pressure dependent
    c. Flux dependent