Unit 3 - Week 1: Overview and polymeric membrane materials

Assignment 1
Due on 2020-10-13, 23:59:59 IST.

1. In general, membranes, the lessons on mass transfer is determined by
   - Total Membrane Thickness
   - Permeability of the membrane
   - Nonspecific sorption and transport across the membrane
   - Membrane porosity
   - Membrane tortuosity
   - Membrane permeability

2. Membranes form by the transport of a solute through a semipermeable membrane

3. Which one of the following statements is correct?
   - A. Membrane permeability decreases with an increase in temperature
   - B. Membrane selectivity increases with an increase in temperature
   - C. Membrane porosity decreases with an increase in temperature
   - D. Membrane thickness decreases with an increase in temperature

4. Which of the following statements is correct about membrane processes?
   - A. Membrane processes are only used for gas separation
   - B. Membrane processes are only used for liquid separation
   - C. Membrane processes are used for both gas and liquid separation
   - D. Membrane processes are not used for separation processes

5. Membranes can be classified into which of the following categories?
   - A. Hydrophobic membranes
   - B. Hydrophilic membranes
   - C. Mixed hydrophobic-hydrophilic membranes
   - D. All of the above

6. Membranes are used to separate which of the following systems?
   - A. Gases
   - B. Liquids
   - C. Solids
   - D. All of the above

7. Membrane processes are widely used in which of the following industries?
   - A. Food industry
   - B. Pharmaceutical industry
   - C. Environmental remediation
   - D. All of the above

8. Membrane processes have the following advantages:
   - A. High selectivity
   - B. High efficiency
   - C. Low energy consumption
   - D. All of the above

9. Membrane processes are used for:
   - A. Desalination
   - B. Water treatment
   - C. Waste treatment
   - D. All of the above

10. Membrane processes are used in:
    - A. Food industry
    - B. Pharmaceutical industry
    - C. Environmental remediation
    - D. All of the above

11. Membrane processes are classified into:
    - A. Hydrophobic membranes
    - B. Hydrophilic membranes
    - C. Mixed hydrophobic-hydrophilic membranes
    - D. All of the above

12. Membranes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

13. Membranes are used in the:
    - A. Food industry
    - B. Pharmaceutical industry
    - C. Environmental remediation
    - D. All of the above

14. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

15. Membranes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

16. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

17. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

18. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

19. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

20. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

21. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

22. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

23. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

24. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

25. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

26. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

27. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

28. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

29. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above

30. Membrane processes are used in:
    - A. Gas separation
    - B. Liquid separation
    - C. Solvent extraction
    - D. All of the above