

***** EXAMINATION *****

WATER DESALINATION

1. **Water is considered potable if it contains:**
 - a) less than 300 milligrams per liter of total dissolved solids
 - b) less than 500 milligrams per liter of total dissolved solids
 - c) less than 700 milligrams per liter of total dissolved solids
 - d) less than 900 milligrams per liter of total dissolved solids

2. **Desalination facilities is located as close to the raw water source:**
 - a) to avoid excessive pipeline costs
 - b) to avoid excessive pumping costs
 - c) to avoid minimize operational costs
 - d) All of the above

3. **The space requirement for desalination facilities is greatest for:**
 - a) membrane desalination equipment
 - b) distillation desalination equipment
 - c) solar desalination equipment
 - d) condensation desalination equipment

4. **The selection of a water supply is based on:**
 - a) available quantity
 - b) quality
 - c) cost of development
 - d) All of the above

5. **The total dissolved solids is the sum:**
 - a) of the dissolved organic materials and the inorganic salts
 - b) of the brackish materials and organic materials
 - c) of chlorides and nitrates
 - d) of sulfates and phosphates

6. **The quality of the water source is determined by:**
 - a) physical testing
 - b) chemical testing
 - c) bacteriological testing
 - d) All of the above

7. **The least expensive source of water is:**
- a) fresh water
 - b) brackish water
 - c) sea water
 - d) None of the above
8. **Reverse osmosis requires a feed water temperature below:**
- a) 65 degrees Fahrenheit
 - b) 95 degrees Fahrenheit
 - c) 115 degrees Fahrenheit
 - d) 125 degrees Fahrenheit
9. **The most severe limitation of reverse osmosis is:**
- a) the maximum limit of iron
 - b) the maximum limit of salt
 - c) the maximum limit of total dissolved solids
 - d) All of the above
10. **Most electro dialysis membranes cannot tolerate:**
- a) oxygen
 - b) oxidants
 - c) gases
 - d) None of the above
11. **Non-settleable solids are removed by:**
- a) gravity
 - b) filtration
 - c) chemical treatment
 - d) All of the above
12. **The principle sources of immiscible liquid fouling are:**
- a) emulsified oil and grease
 - b) gasoline
 - c) salt
 - d) All of the above
13. **The most common organic materials are:**
- a) emulsified oil and grease
 - b) tannins and humic acids
 - c) gasoline
 - d) salt
14. **Chemical treatment may involve:**
- a) coagulation
 - b) pH adjustment
 - c) scale inhibition
 - d) All of the above

15. **Chemicals that lower surface charges are:**
- a) lime
 - b) alum
 - c) ferric salts
 - d) All of the above
16. **A common type of scale-inhibiting chemical type is:**
- a) salts
 - b) gases
 - c) polyphosphates
 - d) All of the above
17. **Dissolved gases may be stripped out with:**
- a) water vapor
 - b) polyphosphates
 - c) polyelectrolytes
 - d) organic polymers
18. **Dual-media filtration consists of two media with different:**
- a) specific weights
 - b) specific gravity
 - c) specific pressures
 - d) All of the above
19. **Secondary filtration can be accomplished by:**
- a) gas injection
 - b) water vapor
 - c) cartridge filters
 - d) All of the above
20. **An effective disinfection technique is:**
- a) ultraviolet irradiation
 - b) the addition of oxidants
 - c) dechlorination
 - d) All of the above

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