

Final Exam
Continuing Education Course #525
PFAS in Drinking Water

1. Which is NOT another name for PFAS?
 - ☐ a. PFASs
 - ☐ b. Endless elements
 - ☐ c. Persistent organic pollutants
 - ☐ d. Forever chemicals
2. In what type of animals does PFAS accumulate the most?
 - ☐ a. Bottom of food chain
 - ☐ b. Middle of food chain
 - ☐ c. Top of food chain
3. Which organs are known to have problems from ingesting PFAS?
 - ☐ a. Liver and Kidney
 - ☐ b. Lungs and Skin
 - ☐ c. Bones and Teeth
4. When was the first PFAS chemistry created?
 - ☐ a. 1920
 - ☐ b. 1938
 - ☐ c. 1955
 - ☐ d. 1960
5. What event in 1967 resulted in AFFF use on Navy vessels?
 - ☐ a. Deadly fire killed 134 sailors
 - ☐ b. Congress passed an AFFF law
 - ☐ c. Fire stations tested AFFF
6. Which two PFAS were highlighted in the first USEPA health advisory on PFAS?
 - ☐ a. PFNA and PFNS
 - ☐ b. PFOA and GenX
 - ☐ c. PFOS and PFOA
7. Which PFAS is not included in the USEPA 2023 Proposed MCLs?
 - ☐ a. PFOA
 - ☐ b. PFEESA
 - ☐ c. PFOS
 - ☐ d. PFBS
8. What is NOT another name for PFCAs?

- ☐ a. Perfluoroalkyl carboxylic acids
 - ☐ b. Carboxylates
 - ☐ c. Sulfonates
9. Which are the most regulated forms of PFAS?
- ☐ a. Short-chain
 - ☐ b. Long-chain
 - ☐ c. Polymer
10. What is the PFOS limit in the USEPA 2023 Proposed MCLs?
- ☐ a. 0.4 ppt
 - ☐ b. 1.0 ppt
 - ☐ c. 4.0 ppt
 - ☐ d. 4.0 ppb
11. What is the PFOA limit in the USEPA 2023 Proposed MCLs?
- ☐ a. 0.4 ppt
 - ☐ b. 1.0 ppt
 - ☐ c. 4.0 ppt
 - ☐ d. 4.0 ppb
12. Which state has mandatory MCLs for PFAS?
- ☐ a. Arkansas
 - ☐ b. Massachusetts
 - ☐ c. Ohio
13. Which state has the lowest mandatory MCL for PFOA?
- ☐ a. California
 - ☐ b. Hawaii
 - ☐ c. Michigan
 - ☐ d. New York
14. Which PFAS is the most toxic according to the Hazard Index?
- ☐ a. PFNA
 - ☐ b. PFHxS
 - ☐ c. PFBS
 - ☐ d. GenX
15. Which EPA Test Method for potable water targets short-chain PFAS?
- ☐ a. 533
 - ☐ b. 537.1
 - ☐ c. 1633
16. Which is an adsorption technique for PFAS removal?
- ☐ a. Ion Exchange
 - ☐ b. Membranes
 - ☐ c. GAC
17. What type of ion exchange resin can target PFAS?
- ☐ a. Cation
 - ☐ b. Anion

☐ c. Inert

18. Which has smaller openings?

☐ a. Ultrafiltration

☐ b. Nanofiltration

☐ c. Reverse Osmosis

19. Which is the correct lifecycle cost formula?

☐ a. Capital Cost + O&M*PWF - Salvage Value

☐ b. Capital Cost + O&M*PWF

☐ c. Capital Cost + O&M Cost - Salvage Value

20. Which PFAS destruction technique can be in conjunction with landfill solid waste?

☐ a. AOP/ARP

☐ b. Incineration

☐ c. Non-thermal plasma (NTP)

☐ d. Sonochemical processing