

CHAPTER ONE TEST

HISTORY OF CHEMICAL PROCESSING

1. The lifeblood of modern society is:
 - a. computer technology
 - b. transportation technology
 - c. communication systems
 - d. crude oil technology
2. Who took an old steam engine and adapted it to fit a drill in 1859?
 - a. Col. Edwin L. Drake
 - b. Prof. Benj. Sillman
 - c. J.C. Booth
 - d. Abraham Gesner
3. When was the first oil refinery built by W. Abbott and W. Barnsdall?
 - a. 1800
 - b. 1860
 - c. 1901
 - d. 1917
4. What is the typical starting income for a process technician is:
 - a. \$18.00- \$22.00 per hour
 - b. \$24.00- \$28.00 per hour
 - c. \$36.00- \$40.00 per hour
 - d. \$28.00- \$34.00 per hour
5. What two inventions changed the direction of modern chemical processing?
 - a. kerosene lantern and steam engine
 - b. radio and television
 - c. automobile and electric light bulb
 - d. atom bomb and colt revolver

6. What are the primary differences between College and High School?
 - a. Freedom and responsibility for learning
 - b. High percentage of students are married and have jobs
 - c. Cost per credit hour and freedom to select curriculum
 - d. All the above
7. What is sexual harassment?
 - a. hidden biases between people with differences.
 - b. reasonable, specific, measurable objectives that lead towards the successful completion of a goal.
 - c. behavior that constitutes unwelcome sexual advances.
 - d. the study and application of the scientific principles associated with the operation and maintenance of the chemical processing industry.
8. Distillation is a process that:
 - a. adds all ingredients to the process up front.
 - b. separates the components in a mixture by boiling point.
 - c. uses heat and pressure to separate small hydrocarbons from large ones.
 - d. uses a catalyst to separate hydrocarbons.
9. Early manufacturers were able to extract _____ barrels of gasoline from every 100 barrels of crude oil.
10. Crude oil is a mixture of:
 - a. naturally occurring acids and clay
 - b. hydrocarbons
 - c. sour water
 - d. fine silt, water and natural gas
11. Thermal cracking uses _____ to separate mixtures.
 - a. catalyst and heat
 - b. acid and heat
 - c. mixing and agitation
 - d. heat and pressure

12. Fractional columns use the following principle:
 - a. distillation
 - b. reaction
 - c. filtration
 - d. reforming
13. Catalytic cracking uses _____ to separate mixtures.
 - a. catalyst and heat
 - b. acid and heat
 - c. mixing and agitation
 - d. heat and pressure
14. Chemical plants and refineries employ all of the following except:
 - a. engineers, chemists, and janitorial services
 - b. machinists, mechanics, and college professors
 - c. process technicians or research technicians
 - d. electricians, instrument technicians, and security officers
15. Modern manufacturers can extract _____ barrels of gasoline from every 100 barrels of crude oil.
16. Safety awareness is:
 - a. taught from the moment you step into the plant
 - b. rarely discussed after the training program
 - c. reviewed annually
 - d. a medium size industrial program
17. Quality awareness includes all of the following except:
 - a. statistical process control
 - b. run charts
 - c. emergency response
 - d. scatter plots

18. The “Big Rollover” is best described as:
- stock market crashes
 - when total “estimated ultimately recoverable (EUR) is determined.
 - a term used to describe the predicted increase in global oil production.
 - when global oil production peaks, and begins to decline.
19. The term, “estimated ultimately recoverable (EUR)” is best described as:
- a term used to describe the predicted increase in global oil production.
 - a technical term describing the total amount of crude oil that will ultimately be recovered.
 - recovery speed after exposure to hazardous chemical.
 - when global oil production peaks, and begins to decline.
20. William Murdock is best known for:
- using gases from heated coal to light his home.
 - first to notice that coal produced fumes he called “gas.”
 - drilled first natural gas well in United States in 1821.
 - discovered how to produce kerosene from crude oil or coal.
21. Most experts agree that the world’s total endowment of oil is:
- 27 billion barrels
 - 1800 billion barrels
 - 900-1500 billion barrels
 - endless regenerated supply
22. Abraham Gesner is best known for:
- using gases from heated coal to light his home.
 - first to notice that coal produced fumes he called “gas.”
 - drilled first natural gas well in United States in 1821.
 - discovered how to produce kerosene from crude oil or coal.
23. Jan Baptista van Helmont is best known for:
- using gases from heated coal to light his home.
 - first to notice that coal produced fumes he called “gas.”
 - drilled first natural gas well in United States in 1821.
 - discovered how to produce kerosene from crude oil or coal.
24. William Aaron Hart is best known for:

- a. using gases from heated coal to light his home.
 - b. first to notice that coal produced fumes he called “gas.”
 - c. drilled first natural gas well in United States in 1821.
 - d. discovered how to produce kerosene from crude oil or coal.
25. Benjamin Sillman Jr. is best known for:
- a. finding a way to distill coal oil from shale or coal.
 - b. discovered how to produce kerosene from crude oil.
 - c. drilling the first oil well in United States.
 - d. proposing the theory of crude oil distillation.