CONTINUING EDUCATION TEST
CHEMISTRY ANALYZERS’ ADVANCING TECHNOLOGY OFFERS INCREASED TESTING CAPABILITIES
April 2018

TEST QUESTIONS
Circles must be filled in, or test will not be graded. Shade circles like this: ○ Not like this: X

1. What term is used to describe the merging of chemistry with medicine?
   ○ a. biological chemistry
   ○ b. clinical chemistry
   ○ c. forensic chemistry
   ○ d. organic chemistry

2. In what era did the field of modern clinical chemistry emerge?
   ○ a. late 1800s
   ○ b. early 1900s
   ○ c. late 1900s
   ○ d. early 2000s

3. In the early 1960s most chemistry laboratories performed a limited number of tests, but they were automated.
   ○ a. True
   ○ b. False

4. Which biochemist established clinical biochemistry in the United States?
   ○ a. Otto Folin
   ○ b. Linus Pauling
   ○ c. Frederick Sanger
   ○ d. Isaac Asimov

5. What chemistry product(s) became available post-World War II?
   ○ a. photoelectric colorimeters
   ○ b. radioimmunoassays
   ○ c. autoanalyzers
   ○ d. all of the above

6. During the days of early computer development in chemistry analyzers, many procedures used a methodology in which the output of the tests were measured by a
   ○ a. nephelometer.
   ○ b. colorimeter.
   ○ c. spectrophotometer.
   ○ d. luminometer.

7. What analyzer was introduced that enabled a microprocessor to process seven of the most commonly ordered STAT tests with automated pipetting?
   ○ a. Creatinine 2
   ○ b. STAT7
   ○ c. ASTRA
   ○ d. none of the above

8. The introduction of the processing of the seven common tests in a consolidated system enabled turnaround times to be reduced from 10 to 20 minutes to
   ○ a. five minutes.
   ○ b. two minutes.
   ○ c. one minute.
   ○ d. one second.

9. With continued improvements of new chemistry system generations, which feature has created efficiencies for laboratorians and physicians?
   ○ a. internet-based remote diagnostics
   ○ b. automated maintenance processes
   ○ c. streamlined calibrations
   ○ d. all of the above

10. The automation of chemistry analyzers has transformed the industry by enabling increased throughput, elevating quality, enhancing safety, and improving workflow.
    ○ a. True
    ○ b. False

11. The full automation of pre-analytical, analytical, and post-analytical tasks allows laboratorians to perform _______ work using labor and _______ resources.
    ○ a. less; less; fewer
    ○ b. more; more; fewer
    ○ c. more; less; fewer
    ○ d. less; more; more

12. What type of computer technology has allowed laboratories to improve uptime and avoid unplanned costs in inventory management?
    ○ a. grid-based
    ○ b. utility-based
    ○ c. cloud-based
    ○ d. none of the above

13. The implementation of which healthcare statistical system had a significant effect in clinical chemistry?
    ○ a. diagnostic related groups
    ○ b. health resource groups
    ○ c. patient management categories
    ○ d. all of the above

14. Federal legislative and regulatory factors have increased pressure on laboratories to produce fast and accurate results, while reducing costs.
    ○ a. True
    ○ b. False

15. The future development of chemistry analyzers will focus on
    ○ a. instrument maintenance.
    ○ b. system troubleshooting.
    ○ c. consumables management.
    ○ d. all of the above

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FL: Your FL license number: ____________________________
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P = Poor; E = Excellent
1. To what extent did the article focus on or clarify the objectives?
   ○ 1 2 3 4 5 E

2. To what extent was the article well-organized and readable?
   ○ 1 2 3 4 5 E

3. How will you use the CE units?
   ○ state license
   ○ employment
   ○ recertification
   ○ other