IC40 - Pre-Instructional Survey

1.   A batch process, according to ISA/IEC standard

   a. once established in a steady operating condition is not dependant on the length of time of the operation.
   b. is a chemical processes which can not be run in a continuous manner.
   c. is a process that leads to the production of finite quantities of materials.
   d. must all take place in a single process unit.

2.   The ISAS88.01 standard

   a. specifies the one way to implement batch control.
   b. emphasizes good practices for the design of batch plants.
   c. restricts development in the area of batch
   d. applies to all aspects of manufacturing

3.   A recipe

   a. tells the batch control system everything needed about how to make the product.
   b. define the only way to make a specific product, independent of raw materials.
   c. does not usually exist for each final product to be produced.
   d. contains only some of the information that defines the production requirements of a product.

4.   Some activities that make up batch control in process cell, according to the ISA/IEC standard, include

   a. recipe management
   b. batch scheduling
   c. personnel and environmental protection
   d. customer order processing

5.   General recipes

   a. are required for centralized control of product information.
   b. are not a required element of a batch system.
   c. are only needed for multiple country companies.
   d. a and b
   e. b and c
   f. a and c

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6. Site recipes

    a. are required for site control of product information.
    b. are only needed for sites with different processing capabilities in cells.
    c. are not a required element of a batch system.
    d. a and b
    e. b and c
    f. a and c

7. Master recipes

    a. may be derived from a site recipe.
    b. are not a required element of a batch system.
    c. are a type of recipe which is not process cell specific.
    d. a and b
    e. b and c
    f. a and c

8. Control recipe

    a. is unique to a batch.
    b. is not a required element of a batch system.
    c. is derived from a master recipe.
    d. a and b
    e. b and c
    f. a and c

9. Multiple operations may be active in a unit at the same time.

    a. TRUE
    b. FALSE

10. Multiple unit procedures may be active in a process cell at the same time.

    a. TRUE
    b. FALSE

11. Multiple batches may be running in a process cell at the same time.

    a. TRUE
    b. FALSE

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12. Multiple batches may be running in a unit at the same time.

    a. TRUE
    b. FALSE

13. A recipe's procedure logic must be hard-coded into equipment.

    a. TRUE
    b. FALSE

14. Recipe procedures must be defined in terms of three levels.

    a. TRUE
    b. FALSE

15. Multiple unit procedures may be active in a single unit at the same time.

    a. TRUE
    b. FALSE

16. Equipment modules can contain a phase.

    a. TRUE
    b. FALSE

17. Control modules can contain a phase.

    a. TRUE
    b. FALSE

18. Equipment modules directly interface to the process.

    a. TRUE
    b. FALSE

19. Control modules directly interface to the process.

    a. TRUE
    b. FALSE

20. Process cell

    a. boundaries are fixed.
    b. can be uniquely identified by the equipment.
    c. may contain one or more batches.
    d. a and b
    e. b and c
    f. a and c

IC40 - Pre-Instructional Survey Answer Sheet

1. c
2. b
3. d
4. a
5. b
6. c
7. a
8. f
9. b
10. a
11. a
12. b
13. b
14. b
15. b
16. a
17. b
18. b
19. a
20. f