Mixer Rodeo Championship Written Examination

Name: _____

Company: _____

City, State: _____

INSTRUCTIONS:

35 minutes are allowed for this examination.

The examination consists of true/false and multiple-choice questions:

True/False: Circle **(a)** for true or **(b)** for false on the exam and write into the answer form.

Multiple Choice: Circle **a**, **b**, **c**, or **d** on the exam and write into the answer form.

Choose the best answer of the choices provided.

There is no negative score for incorrect answers. You are encouraged to answer all questions. Use a pencil to circle the appropriate answer on the exam sheet.

Concrete Technology

1. What type of strength describes the force applied to a 4"x 8" concrete cylinder before it breaks?

   a. Flexural
   b. Compressive
   c. Permeability
   d. Shrinkage

2. Which statement is NOT true about loading fresh concrete on top of recycled concrete?

   a. Batching on top of old concrete can speed up set times.
   b. Overages or shortages are common because it is difficult to estimate the amount left in the drum.
   c. Recycled concrete can be used without affecting concrete quality when used appropriately.
   d. Rapid slump loss cannot occur because the cement in the old concrete has been diluted.

3. At higher than recommended dosages, most type A water reducers will not retard concrete set time.

   a. True
   b. False

4. The recommended number of drum revolutions to properly mix a transit-mixed load of concrete is 300 revolutions.

   a. True
   b. False

Environmental

5. Which of the following pH levels would you expect to be found in concrete drum washout water?

   a. 3
   b. 5
   c. 7
   d. 11

6. Any rain, melting ice or snow that falls on the plant site is considered:

   a. Process water
   b. Storm water
   c. Fresh water
   d. Unusable water

7. Which of the following methods is NOT recommended for jobsite chute rinse-off?

   a. Rinsing into a plastic-lined wooden box
   b. Rinsing into a wheelbarrow or buggy
   c. Rinsing onto a dirt pile that is more than 25 feet from a stream
   d. Using a chute closure device to contain waste until return to the plant

8. Which material carried on the truck mixer is NOT considered a hazardous material?

a. Oil from the engine or transmission
b. Gasoline or diesel fuel from the truck fuel tank and lines
c. Hydraulic fluid from the brake and mixer systems
d. Water from the truck storage tanks

Company & Customer Relations

9. The main reason to wear items that have the company logo or name on them is because they promote a positive image of the company.

a. True
b. False

10. Which type of customer may have little or no knowledge of concrete quality, and is looking for a friendly, caring delivery person?

a. Residential contractor
b. Light commercial contractor
c. Heavy commercial contractor
d. Homeowner

11. Which of the following is NOT a good way of dealing with customer problems?

a. Document all complaints the customer may have
b. Assume that a customer's complaints are not valid because they complain all the time
c. Tell the customer what you can do, not what you cannot do
d. Apologize to the customer for the problem but do not accept responsibility or admit fault

12. If the mixer driver arrives on the job and the customer claims the load is too wet, the first thing the driver should do is:

~~a.~~ Immediately return the mixer to the plant
b. Add sugar to the load so the concrete sets up faster
c. Contact dispatch for instructions
d. Make sure there are at least 70 revolutions on the load

Safety

13. The primary government agency responsible for creating safety regulations and enforcing them is:

a. EPA
b. OSHA
c. DOT
d. NRMCA

14. All of the following are examples of personal protective equipment (PPE) EXCEPT:

a. Hard hat
b. Safety glasses
c. SDS Sheet
d. Hearing protection

15. What is the Federal regulation designed to prevent personal injury and property damage caused by starting up a machine or piece of equipment while it is being worked on or repaired?

a. Confined space
b. Lockout/tagout
c. Hazard communication
d. Respirator protection

16. A mixer drum is a permitted confined space unless it has been reclassified as a non-permitted confined space.

a. True
b. False

Vehicle Maintenance & Operations

17. How much will tire life be reduced for every one pound of under-inflation?

a. One-half percent
b. One percent
c. None
d. Two percent

18. What often is the first indicator that the mixer driver might find during the walk-around inspection to indicate that the wheel lug nuts might be loose?

a. Missing hub caps
b. Rust around the lug nuts
c. Abnormal wear on the tires
d. Missing or broken studs

19. Under what conditions should the mixer driver allow the customer to hang any extension chutes from the truck mixer chutes?

a. **Only if they are supported and do not bear any additional weight on the truck chutes**
b. Under no circumstances should additional chutes be placed on the truck mixer chutes
c. Whenever the customer requests the mixer driver to do so
d. So long as the weight does not exceed the rated capacity of the chute mounts

20. Rear clearance and identification lights are yellow in color.

a. True
b. False

END OF EXAM