

LEHIGH CEMENT COMPANY QUIZ:

1. The large rotating furnace at the heart of the cement making process is the
 - a. clinker
 - b. kiln
 - c. quarry
 - d. crusher

2. What does cement look like?
 - a. white-hot lava
 - b. fine grey powder
 - c. rough white squares
 - d. smooth stones

3. What comes from a quarry?
 - a. oxygen
 - b. railroad cars
 - c. rocks
 - d. roller mills

4. Hydration is the process by which concrete is bound together and continues to get stronger, because of a reaction with
 - a. sunlight
 - b. calcium
 - c. gravity
 - d. water

5. Why are explosives used in cement making?
 - a. to get rid of pollution
 - b. to blast big chunks of raw materials from the earth
 - c. to make an open area to build a basement

6. In wet process cement making, the creamy mixture stirred in big vats is called
 - a. slurry
 - b. liquid cement
 - c. milk-white solution
 - d. limestone gel

7. How hot must it be to make cement?

- a. room temperature
- b. about as hot as a kitchen oven (350° F.)
- c. like a refrigerator
- d. about 10 times hotter than a kitchen oven

8. Name the four important ingredients of concrete:

9. Architects and builders enjoy working with concrete because it

- a. is an energy efficient material
- b. costs a lot
- c. takes any shape
- d. is not very strong
- e. a. and c.
- f. b. and d.

10. Which of these fuels are sometimes used in cement manufacturing? (Check all that apply.)

- scrap tires
- coal
- garden compost
- solvents and paints
- slime
- natural gas
- recycled newspapers
- waste motor oil
- used computers

11. How big are pieces of clinker?

- a. like powder
- b. marble-sized
- c. as big as baseballs
- d. as big as boulders

12. One word that describes concrete very well is

- a. gelatinous
- b. cardboard-like
- c. versatile
- d. electromagnetic

13. The building material concrete

- a. helps saves heating and cooling costs
- b. is made from relatively small amounts of fossil fuel
- c. is very environmentally sound
- d. is extremely durable
- e. is fire resistant
- f. all of the above

14. Which of the following items in modern life might likely be made with cement and concrete? (Check all that apply.)

- highways
 - dams
 - windows
 - corn fields
 - patio pavers
 - dining room chairs
 - swimming pools
 - sidewalks
 - buildings
 - bridges
 - garbage trucks
 - airport runways
 - carpeting
 - fountains
 - American Flags
 - televisions
 - apartment buildings
 - soccer balls
 - potato salad
- foundations

15. Match these jobs at Lehigh Cement Company with their descriptions:

1. Engineer
2. Accountant
3. Secretary
4. Research Scientist
5. Truck Driver
6. Salesman
7. Environmental Specialist
8. Payroll Administrator
9. Information Technology Analyst

- ___ a. delivers product to customers and job sites, obeys traffic laws and takes care of vehicle maintenance
- ___ b. maintains computer hardware and software, and helps make sure that company data are saved electronically for future access
- ___ c. works with customers to sell them the right product for their job, and makes sure they are satisfied with the service they receive
- ___ d. coordinates meeting and travel arrangements, types documents and keeps departmental files in order
- ___ e. processes paychecks for employees every month, and figures out correct income tax and benefits deductions.
- ___ f. uses laboratory equipment to test the strength of concrete, and studies new ways of making concrete perform well under different conditions
- ___ g. works closely with cement plants to make sure that air and water emissions are at a minimum, and that the company complies with all federal and state pollution laws
- ___ h. uses precise drawings, mathematical formulas and careful measurements to design manufacturing processes and keep equipment running efficiently
- ___ i. Works with budgets, keeps tracks of how much money the company spends, and which customers owe money for cement

LEHIGH CEMENT COMPANY QUIZ ANSWER KEY:

1-b

2-b

3-c

4-d

5-b

6-a

7-d

8- cement, water, sand, gravel (crushed stone)

9-e

10- tires, coal, solvents & paints, natural gas, waste motor oil

11-b

12-c

13-f

14- highways, dams, patio pavers, swimming pools, sidewalks, buildings, bridges, airport runways, fountains, apartment buildings, foundations

15-1h, 2i, 3d, 4f, 5a, 6c, 7g, 8e, 9b