

Name: _____ Date: _____

1. What term refers to how a building is used?
 - a) Ownership b) Occupancy c) Design type d) Residence
2. The four characteristics of building materials under fire include 1) Thermal conductivity, 2) Decrease in strength with increased temperature, and 3) Rate of thermal expansion. What is the fourth?
 - a) Polymerizability b) Combustibility c) Portability d) Stability
3. What does a CMU contain?
 - a) Void space b) Steel reinforcing rods c) Joinery instructions d) Explosives
4. What is it called when trapped moisture in concrete is heated to steam and expands, causing parts of the concrete to break away?
 - a) Delamination b) Depolymerizing c) Spalling d) Spation
5. What does steel do under intense heat?
 - a) Contract b) Harden c) Elongate d) Become galvanized
6. What, if anything, does the observation of a steel beam bending under fire warn of?
 - a) Nothing, this is normal and it will bend back when it cools
 - b) Imminent failure
 - c) Imminent ignition
 - d) Underway release of toxic ferrous oxalate
7. What would the observation of glass blocks in a wall tell fire fighters?
 - a) That there is an automatic sprinkler system in that room
 - b) That there is a skylight in that room
 - c) That the wall has not been subjected to fire
 - d) That the wall is not load-bearing

8. Under what conditions, if any, will gypsum burn?
- a) It will burn under the same conditions as wood.
 - b) Only if fanned with room air
 - c) Only in an atmosphere of pure oxygen
 - d) It will not burn under any conditions.
9. What is another term for gypsum board?
- a) Plywood
 - b) Paneling
 - c) Cement board
 - d) Sheetrock
10. What will happen to gypsum board that is exposed to fire for a prolonged time?
- a) It will fail.
 - b) It will spall.
 - c) It will discolor, only.
 - d) Nothing whatsoever
11. What is one application that uses laminated wood instead of solid lumber?
- a) Short, straight beams
 - b) Making curved beams
 - c) Stair tread risers
 - d) Stair treads
12. What is the term for the chemical change that occurs to wood when it is heated, causing it to decompose?
- a) Delamination
 - b) Pyrolysis
 - c) Reduction
 - d) Oxidization
13. With what, if anything, can wood be impregnated to make it more difficult to ignite and slower burning?
- a) Aluminum oxide
 - b) Mineral salts
 - c) Mineral spirits
 - d) Nothing
14. What is the term for those plastics that will melt under fire conditions?
- a) Thermodynamic
 - b) Thermosupple
 - c) Thermoplastic
 - d) Isothermal
15. Type I buildings usually use reinforced concrete and _____ in their construction.
- a) treated wood-frame
 - b) lightweight aluminum-frame
 - c) protected steel-frame
 - d) unprotected concrete frame

16. What type of construction is called Ordinary Construction?
- a) Class C b) Type I c) Class A d) Type III
17. A Type III building has two different fire loads. One is the contents. What is the other?
- a) Shipping deliveries c) The normally abutting exposures
b) The combustible building materials d) The interior atria
18. What type of construction is Heavy Timber?
- a) Class B b) Type IV c) Class D d) Type II
19. What is Type V construction?
- a) Fire resistive b) Wood frame c) All masonry d) Masonry and synthetics
20. If a Type V building is not balloon-frame, then what framing system is it?
- a) Z-frame b) N-frame c) H-frame d) Platform-frame

Answer Key

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