<u>Continuing Education, For UDC Construction Inspectors and Dwelling</u> <u>Contractor Qualifiers.</u>

The following test is for Continuing Education Credits for the above mentioned Licenses and Credentials, All answers are found in the Wisconsin Uniform Dwelling Code Book in comm. 20, 21, and 22. For your convenience we have included the PDF's for comm 20, comm 21 and comm 22 on the homepage of this website. Please call Brett at (920) 740-4348 with any questions or concerns with this or any other issue you may have.

All questions have a correct answer that can be found in the codebook, when your test is completed read the information at the bottom of the page and send the proper items in to obtain your credit

Construction Inspection/Qualifier Cont. Ed. Test 20

Comm 20 Subchapter III: Definitions

1. _____ means an enhancement, upgrading or substantial change or modification other than an addition or repair to a dwelling or to electrical, plumbing, heating, ventilating, air conditioning and other systems within a dwelling.

a. Modification

- b. Revision
- c. Alteration
- d. Amendment

2. _____ means a space under the roof and above the ceiling of the topmost part of the dwelling.

a. Atrium

b. Alcove

c. Garrett

d. Attic

3. _____ means that portion of a dwelling below the first floor or groundfloor with its entire floor below grade.

a. Crawlspace

b. Groundfloor

c. Basement

d. Subcellar

4. _____ means an approval by the department or its authorized representative.

a. Permitted

b. Authorized

c. Sanctioned

d. Approved

5. _____ means practices, techniques or measures that the department determines to be effective means of preventing or reducing pollutants of surface water generated from construction sites.

- a. Best environmental practices
- b. Best management practices
- c. Best practices
- d. Quality assurance

6. _____ means a comprehensive plan designed to reduce the discharge of pollutants from storm water, after the site has undergone stabilization, following completion of the construction activity.

- a. Storm water program
- b. Water quality control
- c. Storm water management plan
- d. Storm water management practices

7. _____ means any day other than Saturday, Sunday or a legal holiday.

- a. Work week
- b. Net working day
- c. Business day
- d. Flex time

8. _____ means a structure used for storing motorized vehicles that is attached to a dwelling that has at least 2 sides completely unenclosed.

- a. Carport
- b. Garage
- c. RV covers
- d. Attachment

9. _____ means the clear vertical distance from the finished floor to the finished ceiling.

- a. Wall height
- b. Entrance height
- c. Ceiling height
- d. Basement height

10. _____ means a person certified by the department to engage in the administration and enforcement of this code.

- a. State inspector
- b. Building inspector
- c. Licensed inspector
- d. Certified inspector

11. _____ means areas along the coast of Lake Michigan or Lake Superior below base flood elevation that is subject to wave runup or wave heights of 3 feet or more.

- a. Base floodplain
- b. Coastal zone
- c. Coastal construction
- d. Coastal floodplain

12. _____ means chs Comm 20 to 25, the Wisconsin uniform dwelling code.

a. Regulations

- b. Policies
- c. Rules
- d. Code

13. _____ means a material or device used to retard or prevent the spread of flame or hot gases through concealed spaces into adjacent rooms or areas.

- a. Fireproofing
- b. Fireblocking
- c. Fire resistance
- d. Firefighting

14. _____ means that part of the fireplace used as a combustion chamber.

- a. Firebox
- b. Firetube
- c. Boiler
- d. Firebrick

15. _____ means the total amount of air necessary for the complete combustion of a fuel.

- a. Combustion air
- b. Exothermic chemical reaction
- c. Internal combustion
- d. Turbulent combustion

16._____ means one or more vertical, or nearly so, passageways or flues for the purpose of conveying flue gases to the atmosphere.

- a. Stack effect
- b. Chimney
- c. Smoke stack
- d. Vent pipe

17. _____ means the same as smoke pipe.

- a. Chimney
- b. Chimney connector
- c. Smoke stack
- d. Vent pipe

18. _____ means the detailed system documentation and methods of assuring that manufactured dwellings and dwelling components are manufactured, stored, transported, assembled, handled and installed in accordance with this code.

- a. Quality assurance program
- b. Compliance assurance program
- c. Enforcement program
- d. Standards setting program

19. _____ means a method or device implemented to prevent or reduce erosion or the resulting deposition of soil or sediment.

- a. Environmental practice
- b. Quality control practice
- c. City ordinance
- d. Control practice

20. _____ is the rate at which heat must be removed from the space to maintain a selected indoor air temperature during periods of design outdoor weather conditions.

- a. Supplemental load
- b. Heat load
- c. Cooling load
- d. Evaporative cooling

21. _____ means the vertical load due to all permanent structural and nonstructural components of the building such as joists, rafters, sheathing, finishes and construction assemblies such as walls, partitions, floors, ceilings and roofs, and systems.

- a. Dead load
- b. Allowable stress
- c. Live load
- d. Actual load

22. ____ means an unenclosed exterior structure, attached or adjacent to the exterior wall of a building, which has a floor, but no roof.

- a. Deck
- b. Balcony
- c. Landing
- d. Veranda

23. _____ means the department of commerce.

- a. Department
- b. Division
- c. Branch
- d. Local office

24. _____ means any building which is not physically connected to the dwelling.

a. Accessory building

- b. Renovation
- c. Detached building
- d. Addition

25. _____ means a device or seal approved by the department to certify compliance with this code.

- a. Wisconsin crest
- b. Wisconsin insignia
- c. Wisconsin stamp
- d. Wisconsin qualified

26. _____ means air that is provided for the purpose of mixing with flue gases in a draft hood or draft regulator.

- a. Concentration air
- b. Dilution air
- c. Moisture-laden emission
- d. Aeration

27. _____ means a gas-burning appliance that is constructed and installed so that all air for combustion is derived directly from the outside atmosphere and all flue gases are discharged to the outside atmosphere.

- a. Direct vent-appliance
- b. Co-axial venting
- c. Vertical venting
- d. Field direct vent system

28. _____ means a method that collects, stores and converts by bacterial digestion nonliquid-carried human wastes or organic kitchen wastes, or both, into humus.

- a. Composting toilet system
- b. Septic system
- c. Organic toilet system
- d. Arborloo

29. _____ means any building, the initial construction of which is commenced on or after the effective date of this code, which contains one or 2 dwelling units.

- a. Occupancy
- b. Real estate
- c. Dwelling
- d. Property

30. _____ means any person, firm or corporation engaged in the business of performing erosion control or construction works such as framing, roofing, siding, insulating, masonry or window replacement work covered under this code and who takes out a building permit.

- a. Qualifier certification
- b. Eligible contractor
- c. Construction contractor
- d. Dwelling contractor

31. _____ means a vertical flue or passageway to vent fuel-burning appliances.

- a. Volcano
- b. Vent
- c. Flue
- d. Duct

32. _____ is a connector between a fuel-burning appliance and the chimney or vent.

- a. Duct
- b. Flue
- c. Vent
- d. Vent connector

33. Dwelling contractor does not include the owner of an existing dwelling, an owner who will reside in a new dwelling or a person, firm or corporation engaging exclusively in electrical, plumbing, heating, ventilating and air conditioning work.

a. True

b. False

34._____ means the detachment and movement of soil, sediment or rock fragments by water, wind, ice, or gravity.

- a. Weathering
- b. Erosion
- c. Sedimentation
- d. Soil compaction

35. ____ means a direct, continuous, unobstructed means of egress from inside the dwelling to the exterior of the dwelling.

- a. Entrance
- b. Outlet
- c. Foyer
- d. Exit

36. _____ means any structure, or that part of a structure, which is used or intended to be used as a home, residence or sleeping place by one person or by 2 or more persons maintaining a common household, to the exclusion of all others.

a. Accessory dwelling unit

b. Dwelling unit

c. Residential unit

d. Structural unit

37. _____ means a detached building, not used as a dwelling unit but is incidental to that of the main building and which is located on the same lot. _____ does not mean farm building.

a. Accessory structure

b. Secondary building

c. Habitable building

d. Accessory building

38. _____ is defined to be the area which is planted and cultivated.

a. Premises

b. Farm premises

c. Farm

d. Acreage

39. _____ are defined as agricultural, horticultural and arboricultural crops.

a. Farming

b. Farm production

c. Farm products

d. Free range products

40. _____ means the operation of a farm premises owned or rented by the operator.

- a. Agriculture
- b. Horticulture
- c. Aboriculture
- d. Farming

41. _____ means the first floor level above any groundfloor or basement or, in the absence of a groundfloor or basement, means the lowest floor level in the dwelling.

- a. First floor
- b. Ground floor
- c. Grade
- d. Basement

42. _____ means a dwelling erected prior to the effective date of this code, one for which a valid building permit exists, or one for which lawful construction has commenced prior to the effective date of this code.

- a. Accessory dwelling unit
- b. Existing dwelling
- c. Existing building
- d. Pre-existing dwelling

43. _____ is the planting and cultivating of the soil and growing of farm products substantially all of which been planted or produced on the farm premises.

- a. Organic farming
- b. Farm operation
- c. Gardening
- d. Agriculture

44. _____ means land which is subject to flooding which is at or below base flood elevation.

- a. Floodway
- b. Floodplain
- c. Flood fringe
- d. Flood meadow

45. _____ means the channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the flood discharge.

- a. Floodplain
- b. Flood fringe
- c. Floodway
- d. Flood district

46. _____ means the area of a room that has a ceiling height of at least 7 feet.

- a. Floor area
- b. Floor space index
- c. Square footage
- d. Floor design

47. _____ means a structure used for storing motorized vehicles that has any more than 2 sides completely enclosed.

- a. Carport
- b. Garage
- c. Pole barn
- d. Attachment

48. _____ means any room used for sleeping, living or dining purposes, excluding such enclosed places as kitchens, closets, pantries, bath or toilet rooms, hallways, laundries, storage spaces, utility rooms, and similar spaces.

- a. Future room
- b. Habitable room
- c. Conditional occupancy
- d. Recreation room

49. _____ means a continuous series of steps with no intermediate landings.

- a. Flight
- b. Stairway
- c. Stairs
- d. Stairwell

50. _____ means that portion of the floodplain outside of the floodway that is at or below base flood elevation.

- a. Flood hazard area
- b. Future flood zone
- c. Floodfringe district
- d. Floodfringe area

51. _____ means the floor area within the fire chamber of a fireplace.

- a. Firepit
- b. Hearth extension
- c. Hearth
- d. Inglenook

52. The ______ of a fireplace is the slot-like opening above the firebox through which flames, smoke and other products of combustion pass into the smoke chamber.

- a. Ash pit
- b. Throat
- c. Damper
- d. Lintel

53. _____ means the surfacing applied to the floor area extending in front of and at the sides of the fireplace opening.

- a. Firepit
- b. Inglenook
- c. Hearth
- d. Hearth extension

54. _____ is the estimated heat loss of each room or space to be heated, based on maintaining a selected indoor air temperature during periods of design outdoor weather conditions.

- a. Cooling load
- b. Supplemental load
- c. Evaporative load
- d. Heating load

55. _____ means a masonry unit which has a net cross-sectional area parallel to the bearing face which is less than 75% of the gross cross-sectional area.

- a. Grouted unit
- b. Ungrouted unit
- c. Solid unit
- d. Hollow unit

56. _____ means a self-contained device for the treatment of nonliquid carried wastes that deposits the wastes directly into a combustion chamber, reduces the solid portion to ash and evaporates the liquid portion.

- a. Portable toilet
- b. Alternative toilet
- c. Incinerating toilet
- d. Composting toilet

57. _____ means any person, firm, association, partnership or corporation certified by the department to perform certified inspections under this code.

- a. Independent inspection agency
- b. Certified building inspector
- c. Licensed inspection agency
- d. State approved inspection agency

Comm 20.09(2)(a)1.

58. The Wisconsin uniform building permit application shall be filed with the county or a registered IBC inspection agency administering and enforcing this code.

a. True

b. False

59. The municipality or the registered UDC inspection agency shall forward a copy of all applications for new dwelling construction to the department within 90 business days after permit issuance.

a. True b. False 60. When required by local ordinance, permit applications for additions, alterations and repairs shall be filed with municipalities and counties in accordance with their adopted ordinances.

a. True

b. False

61. Building permits for ______, alterations and repairs are not required in municipalities where the department has jurisdiction under s. <u>101.651 (3) (b)</u>, Stats.

- a. dwellings
- b. additions
- c. commercial

d. duplex's

62. The municipality shall, by ordinance, determine fees to cover _____.

a. examination,b. expenses of plan examinationc. issuance of permitd. all of the above

63. The municipality shall purchase a Wisconsin uniform building permit ______ from the department for each new dwelling in accordance with <u>s. Comm 2.34</u>.

a. application

- b. seal
- c. stamp
- d. review

64. Inspection agency ______ shall be determined by contract between the municipality and the agency or between the department and the agency, where the agency has been authorized to conduct inspections on behalf of the department.

a. fees

- b. personnel
- c. credibility
- d. location

65. A registered UDC inspection agency shall purchase a Wisconsin uniform building permit seal from the department for each ______ in accordance with <u>s. Comm 2.34</u>.

a. addition

- b. new dwelling
- c. renovation
- d. fence

66. At least ______ sets of plans for all one- and 2-family dwellings shall be submitted to the municipality or the registered UDC inspection agency administering and enforcing this code, for examination and approval at the time the Wisconsin uniform building permit application is filed.

a. 2

b. 3

c. 4

d. 5

67. The required building plans shall be legible and drawn _____ or dimensioned and shall include...

a. in ink

b. in lead

c. to scale

d. none of the above

68. A site plan shall include _____.

a. location of the dwelling

b. location of all erosion and sediment control

c. direction of runoff flow

d. all of the above.

69. Floor plans _____ be provided for each floor.

a. need not

b. shall

c. may

d. can

70. The size and location of all rooms, doors, windows, _____, exit passageways and stairs shall be indicated.

- a. closets
- b. carpets
- c. phones

d. structural features

71. A storm water management plan shall be prepared for a site where ______ or more acres of land disturbing construction activity is to occur.

a. one

b. two

c. three

d. four

72. . _____ required plans submitted for approval be accompanied by sufficient data, calculations and information to determine if the dwelling will meet the requirements of this code.

a. All

b. Some

c. Many

d. Most

73. The data and information for determining compliance with the ______ standards shall be submitted on forms provided by the department or other approved forms.

a. structural

b. clean water

c. erosion control

d. energy conservation

74. Except as required under <u>s. Comm 21.33</u>, a municipality exercising jurisdiction may not require plans or calculations to be stamped by an _____.

a. engineer

b. architect

c. both a and b

d. none of the above

75. Where a dwelling is intended to be identically and repetitively constructed at different ______, a master plan may be submitted for approval.

a. states

- b. elevations
- c. cities

d. locations

76. If the municipality or the registered UDC inspection agency administering and enforcing this code determines that the plans submitted for a one- or 2-family dwelling ______ to the provisions of this code and other legal requirements an approval shall be issued.

a. somewhat conforms

b. substantially conforms

c. does not conform

d. may conform

77. The plans shall be stamped "_____" by a certified inspector who holds the respective credential for the plans reviewed.

a. not approvedb. confidentialc. copyd. conditionally approved

Comm 21.15: Footings

78._____ may be used in place of continuous footings where there is a change in footing elevation.

a. Lintels

b. Posts

c. Beams

d. Headers

79. No footing or foundation shall be placed on soil with a bearing capacity of less than_____ pounds per square foot unless the footing or foundation has been designed through structural analysis.

a. 1600

b. 2000

c. 1000

d. 1500

80. The soil-bearing values of common soils may be determined through _____.

- a. Soil stability
- b. Soil identification
- c. Soil management
- d. All of the above

81. If the soil located directly under a footing or foundation overlies a layer of soil having a smaller allowable bearing value, the ______ soil-bearing value shall be used.

- a. Larger
- b. Smaller
- c. Mean
- d. Median

82. No footing or foundation shall be placed upon _____ fill material, organic soil, alluvial soil or mud unless the load will be supported.

- a. Unprepared
- b. Prepared
- c. Unsuitable
- d. Incompatible

Comm 21.17: Drain tiles

83. Excepted as provided under sub. (2), a complete drain tile or pipe system shall be installed around the foundation of dwellings under _____ where groundwater occurs above the bottom of the footing.

- a. Contract
- b. Destruction
- c. Erection
- d. Construction

84. For the purposes of this section, a complete drain tile or pipe system includes the drain tile or pipe installed inside and outside the foundation a the footing level, bleeders connecting the inside tile or pipe to the outside tile or pipe, the sump pit, the discharge piping, and a pump or means of _____ water to natural grade.

a. Releasing

b. Discharging

- c. Circulating
- d. Moving

85. For new dwelling construction, a municipality may enact requirements for other than complete drain tile or pipe systems.

a. True

b. False

86. For an alteration to an existing dwelling covered by this code, a municipality may not require a complete drain tile or pipe system.

a. True b. False

87. Municipalities may not allow partial drain tile or pipe systems for new dwellings under construction or existing dwellings.

a. True

b. False

88. The basement slab shall be placed on at least _____ inch (es) of clean graded sand, gravel or crushed stone.

a. 1

- b. 2
- c. 3
- d. 4

Comm 21.203: Garage Floors

89. Garage floors shall be constructed of concrete or other noncombustible materials which are ______ to petroleum products.

a. Permeable

- b. Impermeable
- c. Resistant
- d. Impervious

Comm 21.22: Wood frame floors

90. Notching and boring of beams or girders is prohibited unless determined through structural analysis.

a. True

b. False

91. A hole may not be bored in a floor within 2 inches of a notch or another hole.

a. True

b. False

92. Trimmers and headers shall be _____ when the span of the header exceeds 4 feet.

- a. Reinforced
- b. Modified
- c. Extended
- d. Doubled

Comm 21.24: Exterior covering

93. The exterior walls shall be covered with a _____ weather resistant finish.

- a. Durable
- b. Permanent
- c. Approved
- d. Shatterproof

94. During construction, wall cavity _____ may not be installed until a water-resistant exterior covering is in place over the wall cavity.

- a. Material
- b. Insulation
- c. Blockwork
- d. Panels

95. Corrosion-resistant flashing shall be installed in the_____ wall to prevent water from entering the wall cavity or coming in contact with the structural framing components.

- a. Opposing
- b. Adjacent
- c. Interior
- d. Exterior

96. The flashing shall extend to the surface of the exterior wall finish and prevent water from _____ the exterior wall.

a. Reentering

b. Damaging

c. Entering

d. Saturating

Comm 21.26: Masonry walls

97. In cold weather, provisions shall be taken to prevent masonry from being _____ by freezing.

- a. Affected
- b. Altered
- c. Damaged
- d. None of the above

98. All previously used masonry units shall be free from ______ defects which interfere with the installation or impair the structural properties of the unit.

- a. Physical
- b. Major
- c. Significant
- d. Minor

99. Only _____ may be used as an accelerant and shall be limited to 2% by weight of the cement used.

- a. Mineral oxide
- b. Sodium chloride
- c. Calcium chloride
- d. Chlorocalcite

100. Only _____ may be used as mortar color and shall not exceed 10% by weight of the cement used.

- a. Red iron oxide
- b. Sodium chloride
- c. Calcium chloride
- d. Mineral oxide

101. Mortar shall be mixed for at least _____ minutes after all ingredients have been added with the maximum amount of water to produce workable consistency.

a. 4 b. 3 c. 5

d. 10

102. Mortars shall be used and placed in final position within _____ hours after mixing.

a. $1 \frac{1}{2}$ b. 2 c. $2 \frac{1}{2}$ d. 3

103. Masonry veneers may be corbeled over the foundation wall, but the corbelling shall not exceed one inch.

a. True

b. False

104. Weep holes shall be provided at the bottom masonry course at _____ intervals of 2 feet.

a. Accepted

b. Regular

c. Minimum

d. Maximum

105. All veneers, supports and attachments shall be _____ or adhesively anchored.

a. Automatically

b. Routinely

c. Mechanically

d. Physically

Comm 21.27: Roof and ceilings

106. Roofs shall withstand a pressure of at least _____ pounds per square foot acting upward normal to the roof surface.

a. 10

b. 20

c. 30

d. 35

Comm 21.28: Roof and ceiling wood framing

107. In _____ ceilings, the upper end of the rafters shall be supported by a ridge beam or bearing wall, or thrust restraint shall be provided per s. Comm 21.02.

a. Cathedral

b. Suspended

c. Conventional

d. Flat

108. Ceiling joists shall be _____ to exterior walls and to the ends of rafters.

- a. Fastened
- b. Joined
- c. Nailed
- d. Attached

109. Roof planks shall be tongue and groove or _____ and at least 2 inches, nominal, in thickness.

- a. Double-sided
- b. Splined
- c. Single-sided
- d. Reinforced

Comm 21.29: Masonry fireplaces

110. Masonry fireplace chimneys shall extend at least 3 feet above the _____ point where the chimney passes through the roof and at least 2 feet higher than any portion of the dwelling within 10 feet of the chimney.

- a. Highest
- b. Lowest
- c. Median
- d. Central

111. _____ circulating ducts shall be constructed of masonry or metal.

- a. Warm-air
- b. Cold-air
- c. Return-air
- d. Air

112. Return air grilles shall not be located in bathrooms, kitchens, garages, utility spaces or in a confined spaced defined under s. comm. 23.06 in which a draft diverter or ______ is located.

- a. Gas regulator
- b. Barometic damper
- c. Draft regulator
- d. Switch

113. Dampers shall be made of cast iron or at least _____ gauge sheet metal.

a. No. 10 b. No. 19 c. No. 12 d. None of the above

114. The area of the damper opening shall be at least 90% of the _____ flue area when in the open position.

- a. Total
- b. Required
- c. Overall
- d. Entire

115. Metal hoods, used in lieu of a masonry smoke chamber, shall be constructed of at least No. 19 gauge corrosion-resistant metal with all seams and connections of ______ construction.

- a. Waterproof
- b. Fire resistant
- c. Fireproof
- d. Smokeproof

116. Metal hoods shall be kept a minimum of 18 inches from the combustible materials unless ______ for reduced clearances.

- a. Permitted
- b. Measured
- c. Approved
- d. Intended

117. Firebrick may be used in the _____ of the fireplace as an inlet to the flue liner.

- a. Lintel
- b. Throat
- c. Flue
- d. Ash pit

118. Fireplaces with ______ shall be provided with cleanout openings at the base.

- a. Butt walls
- b. Smoke shelves
- c. Ash pits
- d. Ash dumps

Comm 21.30: Masonry chimneys

119. No masonry chimney shall rest upon _____.

- a. Porous material
- b. Wood
- c. Lime-based mortar
- d. Base flashing

120. Chimney flues for appliances shall be at least equal to that of the area of the connector from the _____.

- a. Wall
- b. Ceiling
- c. Appliance
- d. Chimney

121. Inlets to masonry chimneys shall enter the side and be provided with _____.

- a. Caps
- b. Covers
- c. Thimbles
- d. Crowns

Comm 21.34: Construction in coastal floodplains

122. Enclosures below the base flood elevation in a coastal floodplain may not be used for human occupancy and shall be free of all obstructions, except for _____ walls and partitions.

- a. Freestanding
- b. Commercial
- c. Loadbearing
- d. Non-loadbearing

123. Non-loadbearing walls and partitions below base floor elevation shall be constructed to ______ without causing structural damage to the elevated portion of the dwelling or foundation system due to the effect of wind loads and water loads acting simultaneously.

- a. Hold
- b. Rest
- c. Set
- d. Break away

124. All dwellings located in a coastal floodplain shall be supported and _____ on pilings or columns.

- a. Embedded
- b. Anchored
- c. Installed
- d. Positioned

125. The piling or column shall have ______ soil penetration to resist combined water and wind loads at the base flood elevation.

a. Sufficient

b. Adequate

c. Elevated

d. Simultaneous

126. Piling or column design shall consider the effect of _____ of soil strata.

- a. Depth
- b. Erosion
- c. Scour
- d. None of the above

127. Mat or _____ foundations to support columns may not be used where soil under the mat or raft is subject to scour or other erosion from wave flow conditions.

- a. Shallow
- b. Isolated
- c. Pile-raft
- d. Raft

Subchapter III — Insulation Materials and Installation Comm 22.20 Basic requirements.

128. _____shall be identified in a manner that will allow a determination of their compliance with the applicable provisions of this code.

- a. Materials
- b. Equipment
- c. Systems
- d. All of the above

129. All insulation materials, caulking and weatherstripping, _____, and water-heating equipment and system components shall be installed in accordance with the manufacturer's installation instructions.

- a. Mechanical equipment
- b. Fenestration assemblies
- c. Systems components
- d. All of the above

130. Manufacturer's installation instructions shall be available on _____at the time of inspection.

- a. On the job site
- b. Upon request
- c. If needed
- d. None of the above

131. _____ insulation shall be installed in a manner which will permit inspection of the manufacturer's R-value identification mark.

a. Roof and ceiling

b. Roof and wall cavity batt

c. Board insulation

d. All of the above

132. A thermal resistance identification mark shall be applied by the manufacturer to each piece of dwelling envelope insulation ______inches or greater in width.

a. 12

b. 10

c. 8

d. 6

133. The thickness of blown-in roof and ceiling insulation shall be identified by thickness markings that are labeled in inches and installed at least one for every square feet through the attic space.

a. 200

b. 300

c. 400

d.500

134. The markers shall be affixed to trusses or joists marking the minimum initial installed thickness and minimum settled thickness with numbers a minimum of ______inch(es) in height.

a. Half

b. Two

c. Three

d. None of the above

135. The certificate shall be completed by the _____.

a. Ownerb. Builderc. Insulation installerd. a, b, OR c

136. The certificate shall list at least which of the following information:

a. The predominant R-values of insulation installed in or on ceilings or roofs, walls, foundation walls, slabs and any heating ducts that are outside the thermal envelope.

b. The U-factors of all windows, skylights and doors.

c. a AND b

d. None of the above

137. Insulating blankets or batts shall be held in place with _____.

- a. A covering
- b. Other means of mechanical or adhesive fastening
- c. a OR b
- d. Balls

138. Note: If the insulation is on a below–grade wall, s. Comm 22.08 (3) may prohibit the use of vapor retarder material used as the covering.

a. True

b. False

139. Except as provided under s. Comm 22.39 (4) for cathedral ceilings, all air-permeable insulation materials installed in any position other than horizontal, shall be covered on the cold-in-winter side with a permanently attached material of low air permeability to maintain the R-value of the insulation.

a. True

b. False

140. **Note:** Suitable materials for this purpose include house wrap permanently attached with ______, oriented strand board or OSB, siding material, rigid insulation sheathing, etc.

a. Batten stripsb. Asphalt–impregnated felt or tar paperc. Plywoodd. a, b, OR c

141. If non-rigid sheet material is used, it shall not be water vapor permeable.

a. True

b. False

142. Exterior foam plastic insulation shall be protected from physical damage and damage

from ultraviolet light with a _____ covering or coating.

- a. Permanent
- b. Opaque
- c. Weather-resistant
- d. All of the above

143. The protective covering shall cover the exposed exterior insulation and extend a minimum of _____ inches below grade.

- a. 6
- b. 8
- c. 10
- d. 12

144. Note: For interior applications, a thermal barrier may be required under s. Comm 21.11.

a. True

b. False

Comm 22.30 General design requirements.

a. 1.0

b. 0.5

c. 1.5

d. None of the above

146. The minimum air change per hour rate may not be less than_____, unless mechanical ventilation is provided.

a. 0.2 b. 0.1 c. 0.02 d. None of the above

147. Where basement and crawl space walls are part of the dwelling thermal envelope, their ______ shall be based on the wall components.

a. R-values

b. U-factors

c. a AND b

d. None of the above

148. Adjacent soil may be considered in the determination.

a. True

b. False

149. Except as provided under par. (b), a garage may not be provided with any supplemental heat unless which of the following conditions are met:

a. The dwelling shall be thermally isolated from the garage.

b. The garage floor, ceiling and walls shall be provided with a vapor retarder in accordance with s. Comm 22.38.

c. All building elements shall meet the requirements of s. Comm 22.31.

d. All of the above

150. The thermal envelope requirements under par. (a) are not required if which of the following conditions are met:

a. The thermostat is permanently limited to a maximum of 50 degrees F.

b. Heating equipment is either separate from the dwelling unit equipment or installed as a separate zone.

c. Separate heating equipment shall be sized to provide a maximum indoor temperature of 50 degrees F.

d. All of the above

151. When insulation is placed on the exterior of a foundation supporting a masonry veneer exterior, the horizontal foundation surface supporting the veneer is required to be insulated to satisfy the foundation insulation requirement.

a. True

b. False

Comm 22.31 Prescriptive insulation and fenestration

152. Except as specifically provided under this subchapter, dwellings using the prescriptive method shall meet the requirements of Table 22.31–1 or 22.31–2.
(b) In Tables 22.31–1 and 22.31–2, zone 2 consists of which of the following northern counties:

a. Ashland, Bayfield, Burnett, Douglas, Florence

b. Forest, Iron, Langlade, Lincoln, Oneida, Price

c. Sawyer, Taylor, Vilas and Washburn

d. All of the above

153. Zone 1 consists of all other counties not included in zone 2.

a. True

b. False

154. If the total dwelling thermal envelope UA is less than or equal to the total UA resulting from using the U-factors in Table 22.31-2 _____ by the same assembly area as in the proposed building, the dwelling is in compliance with this chapter.

a. Multiplied

b. Added

c. Divided

d. Substracted

155. The UA calculation shall be done using a method consistent with the ASHRAE Handbook of Fundamentals and shall not include the thermal bridging effects of framing materials.

a. True

b. False

156. Note: UA is equal to the product of the U-factor times the assembly area.

a. True b. False

157. **Note:** ______ are acceptable software programs for determining compliance with this section.

a. REScheck

- b. REM/Rate
- c. a AND b
- d. None of the above

158. If the REScheck software program is used to show compliance with this section, the version shall be_____, or later.

a. 4.1.0 b. 3.7 c. 4.2.2 d. None of the above

159. **Note:** Any version of REScheck with a beginning number of 3 or smaller will not support the requirements of this code.

a. True

b. False

160. Except as allowed under par. (b) and s. Comm 22.46, ______ shall meet the minimum efficiency requirements in Table 22.31–3.

a. Oil-fired furnacesb. Gas-fired furnacesc. Boilersd. All of the above

Comm 22.32 Specific insulation requirements

161. _____will satisfy the ceiling R-value requirement for a dwelling where the full height of uncompressed ______insulation extends over the wall top plate at the eaves.

a. R-22 b. R-38 c. R-13 d. R-30 162. Where the design of the roof or ceiling assembly does not allow sufficient space for the required ______ insulation, the minimum required insulation for the roof or ceiling assembly shall be R-30.

a. R-60

b. R–49

c. R-38

d. R-22

163. This reduction of insulation shall be limited to ______ square feet of ceiling area.

a. 500

b. 400

c. 300

d. 200

164. The requirements of Table 22.31–1 are applicable in a mass wall where at least ______ percent of the required insulation R–value is on the exterior of, or integral to, the wall.

a. 25

b. 40

c. 50

d. 55

165 ______at outside walls shall be insulated to the required wall R-value with air-impermeable insulation that is sealed on all sides to all framing members and the foundation, or with air-permeable insulation held in place as required under s. Comm 22.21 (1).

a. Box sills

b. Joist spaces

c. a AND b

d. None of the above

166. Joist spaces that extend beyond exterior walls shall be insulated with an R-value of ______ or higher with insulation that completely fills the cavity including over the top of the exterior wall supporting the joists.

a. 30

b. 13

- c. 15
- d. 22

167. The joist space insulation shall be air sealed by:

a. Using an air–impermeable insulation that is sealed to all framing members

b. Covering the insulation with a rigid material that is caulked or sealed to all framing members.

c. A OR b

d. a AND b

168. If piping that is subject to freezing is located in the joist space, additional insulation shall be provided on the unconditioned side of the space.

a. True

b. False

169. Except for closed-cell sprayed foam, wall insulation shall completely fill the wall cavity.

a. True

b. False

Comm 22.33 Slab floors.

170. Any slab floor, the bottom of which is less than ______ inches below adjacent grade, shall be insulated in accordance with Table 22.31–1 or Table 22.31–4.

a. 6 b. 12 c. 15

d. 10

171. The top edge of insulation installed between the exterior wall and the edge of the interior slab may be cut at a _____ degree angle away from the exterior wall.

a. 90

b. 60

c. 35

d. 45

172. Horizontal insulation extending outside of the foundation shall be covered by soil a minimum of ______inches thick or by pavement.

a. 6 b. 12 c. 10 d. 8

Comm 22.34 Crawl spaces.

a. 30

b. 24

c. 36

d. 48

174. Any exposed earth in crawl spaces shall not be covered with a continuous vapor retarder.

a. True

b. False

175. _____ decayable organic material, including topsoil, shall be removed from crawl space floors prior to placing the vapor retarder.

a. All

- b. Most
- c. Fine
- d. Visable

176. All joints of the vapor retarder shall overlap by _____inches and be sealed or taped.

a. 2

- b. 6
- c. 4
- d. 5

177. For crawl spaces that are outside of the thermal envelope, ventilation openings equal to at least _______ of the floor space shall be provided.

- a. 1/1200
- b. 1/1300
- c. 1/1500
- d. 1/1400

178. At least 50% of the ventilating area shall be provided_____.

- a. At opposite sides of the crawl space
- b. As far apart as possible.
- c. a OR b

d. None of the above

Comm 22.35 Thermally isolated sunrooms

179. The temperature in the conditioned space shall _____.

- a. Be controlled as a separate zone
- b. Use separate heating equipment
- c. Not exceed 70 degrees F
- d. a OR b

180. Glazing in a thermally-isolated sunroom is considered to be in the dwelling thermal envelope.

a. True b. False

Comm 22.36 Fenestration

181. Up to ______ square feet of glazed fenestration per dwelling unit may be exempt from U-factor requirements of the chapter.

a. 5

b. 15

c. 10 d. 20

Construction Inspection/Qualifier Cont. Ed. Test 20 Answer Sheet

1		10	1 1	07		1 145	
1.	a b c d		a b c d	97.	a b c		
2.	a bcd		a bcd	98.	a b c		
3.	a bcd	51.	a bcd	99.	a bc	d 147	. abcd
4.	a bcd	52.	a bcd	100.	a b c	d 148	. abcd
5.	a bcd	53.	a bcd	101.	a b c	d 149	. a b c d
6.	a bcd		a bcd	102.	a b c		
7.	a b c d		a b c d	103.	a b c		
8.	a bcd		a bcd	105.	a b c		
9.	a b c d			105.			
10.	a b c d		a b c d	106.	a b c		
11.	a b c d		a b c d	107.	a b c		
12.	a bcd		a bcd	108.	a bc		
13.	a bcd	61.	a bcd	109.	a bc		
14.	a bcd	62.	a bcd	110.	a bc	d 158	. abcd
15.	a bcd	63.	a bcd	111.	a b c	d 159	. abcd
16.	a bcd	64.	a bcd	112.	a b c	d 160	. abcd
17.	a bcd		a bcd	113.	a b c	d 161	
18.	a bcd		a b c d	114.	a b c		
19.	a b c d		a bcd	115.	a b c		
20.	a bcd		a bcd	116.	a b c		
20.				110.			
21.				117.			
	a b c d		a b c d		a b c		
23.	a b c d		a b c d	119.	a b c		
24.	a b c d		a b c d	120.	a b c		
25.	a b c d		a b c d	121.	a b c		
26.	a bcd		a bcd	122.	a b c		
27.	a bcd	. 75.	a bcd	123.	a b c		. abcd
28.	a bcd	. 76.	a bcd	124.	a bc	d 172	. abcd
29.	a bcd	77.	a bcd	125.	a b c	d 173	. abcd
30.	a bcd	78.	a bcd	126.	a b c	d 174	. abcd
31.	a bcd	79.	a bcd	127.	a b c	d 175	. a b c d
32.	a bcd		a bcd	128.	a b c		
33.	a b c d		a b c d	129.	a b c		
34.	a bcd		a bcd	130.	a b c		
35.	a bcd		a b c d	130.	a b c		
36.	1 1			131.	1		. abcd
37.	a b c d		a b c d	133.	a b c		. abcd
38.	a b c d		a b c d	134.	a b c		
39.	a b c d		a b c d	135.	a b c		
40.	a bcd		a b c d	136.	a b c		
41.	a bcd		a bcd	137.	a bc		
42.	a bcd	90.	a bcd	138.	a bc	d	
43.	a bcd	91.	a bcd	139.	a b c	d	
44.	a bcd	92.	a bcd	140.	a b c	d	
45.	a bcd		a bcd	141.	a b c	d	
46.	a bcd		a bcd	142.	a b c		
47.	a b c d		a b c d	143.	a b c		
48.	a bcd		a bcd	144.	a b c		
10.	u o o u		u o o u	± 1 1.	u 0 0	4	

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