CITY OF LONGMONT
BUILDING INSPECTION DIVISION

2016 MECHANICAL CONTRACTOR SELF-STUDY GUIDE
Based On the 2015 International Residential, Mechanical, Fuel Gas and Energy Conservation Codes (and local amendments to these codes)

Name_____________________________________________ Date__________________
Company Name______________________________________ License #_____________

YOU WILL BE CONTACTED IF YOU DID NOT RECEIVE A 65% SCORE
AND WILL BE ASKED TO RE-TAKE THIS STUDY GUIDE

This Study Guide is provided by the Longmont Building Inspection Division. It is intended to be an exercise to keep THE TESTED qualified individuals current with the latest codes used in Longmont. Please return this completed guide to the Building Inspection Division for review and credit toward license renewal by June 30, 2016.

1.) On a building addition where fuel gas heating equipment is added, the added equipment shall conform to that required for __ installations.
   a.) existing  
   b.) modified 
   c.) new  
   d.) grandfathered

2.) The termination point for a duct intended to exhaust flammable vapors shall be located a minimum of __ feet from any property line.
   a.)  5  
   b.) 10  
   c.) 20  
   d.) 30

3.) Unless a minimum 6-foot high by 22-inch-wide passageway is provided, equipment installed in underfloor areas shall be located a maximum of __ feet from the access opening.
   a.) 18  
   b.) 20  
   c.) 24  
   d.) 30
4.) Where approved roof-mounted fall-restraint devices are installed in place of a required guard, the devices must be installed every ___ feet or less along the ridge line.
   a.) 25  
   b.) 20  
   c.) 15  
   d.) 10

5.) The operating mechanism for openings providing natural ventilation shall be controllable by ___.
   a.) the occupants  
   b.) an automatic thermostat  
   c.) a humidity detector  
   d.) the master control panel

6.) In the mechanical ventilation of a machinery room, an exhaust system shall be discharged a minimum of ___ feet from a property line or any openings into buildings.
   a.) 5  
   b.) 10  
   c.) 20  
   d.) 30

7.) For single-wall metal pipe to be used outdoors for venting appliances, the 99-percent winter design temperature must not be less than ___ degrees Fahrenheit.
   a.) 32  
   b.) 35  
   c.) 38  
   d.) 40

8.) Domestic range hood exhaust systems capable of exhausting more than ___ cubic feet per minute shall be mechanically or naturally provided with makeup air at a rate approximately equal to the exhaust rate.
   a.) 250  
   b.) 300  
   c.) 400  
   d.) 600
9.) The 4-inch subslab soil exhaust system ducts installed in residential construction in Longmont shall terminate a minimum of __ inches above the roof.
   a.) 16
   b.) 12
   c.) 10
   d.) 8

10.) Nonpressurized expansion tanks installed on single family residential boilers shall be supported to carry __ times the weight of the tank filled with water.
   a.) 2.5
   b.) 2
   c.) 1.75
   d.) 1.5

11.) An automatic appliance shut-off device is required for condensate pumps located __.
    a.) in an attic
    b.) in a basement
    c.) in a mechanical room
    d.) more than 10 feet from the condensing appliance

12.) The vent terminal of a direct-vent appliance with an input rating of 60,000Btu/h shall be located at least __ inches from any air opening into a building.
    a.) 18
    b.) 6
    c.) 9
    d.) 12

13.) A vent to the outdoors is not required for a pressure regulator equipped with a __.
    a.) vent-limiting device
    b.) breather vent
    c.) relief vent
    d.) vent manifold

14.) Gas piping installed in a two family residence in Longmont shall be tested at a minimum air pressure of __.
    a) one and one-half times the proposed working pressure
    b) two and one-half times the proposed working pressure
    c) two times the proposed working pressure
    d) 10 psi
15.) Floor registers shall resist, without structural failure, a minimum ___-pound concentrated load.
   a.) 150  
   b.) 199  
   c.) 200  
   d.) 250

16.) Unless a higher limit is set by the manufacturer of an unvented room heater, a required oxygen-depletion safety system shall shut off the appliance when the oxygen is depleted to ___ percent concentration
   a.) 10  
   b.) 18  
   c.) 20  
   d.) 28

17.) At an underground inspection where the excavated soil contains rocks, broken concrete or rubble, ___ is required on the job site.
   a.) clean backfill  
   b.) an environmental permit  
   c.) compaction equipment  
   d.) a means of debris removal

18.) In addition to the general ventilation requirements, each manicure station in a nail salon shall be provided with a source capture system capable of exhausting not less than ___ cfm per station.
   a.) 0.6  
   b.) 0.12  
   c.) 20  
   d.) 50

19.) Unlisted appliances ___.
   a.) are not allowed to be installed  
   b.) require testing conducted by the manufacturer  
   c.) may be approved based on an approved engineering evaluation  
   d.) are permitted to be installed per the manufacturer’s installation instructions

20.) In Longmont, a balance report is required on all HVAC systems that are installed___.
   a.) in new buildings or tenant improvement projects  
   b.) where there is a change of use to the existing building  
   c.) where a building remodel requires substantial HVAC system modifications  
   d.) all of the above