1) Prior to completion of the well, a bonded constructor must request and receive approval from the Water Resources Department to use methods or materials that do not meet the water supply well construction standards. Which of the following does not need to be included in the request?
   a) The distance to the nearest well and septic tank or drain field.
   b) Name, license number and signature of the bonded well constructor.
   c) A timeline indicating the projected objectives for completing the project.
   d) A diagram and written description showing the proposed water supply well design, construction or abandonment.

2) Any new, altered, deepened or converted well in the sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed according to OAR 690, Division 210 with the following additional requirement:
   a) Unperforated casing and seal shall extend from land surface to a depth of 10 feet below land surface.
   b) Unperforated casing and seal shall extend from land surface to a depth of 150 feet below land surface.
   c) Unperforated casing and seal shall extend from land surface to a depth of 200 feet below land surface.
   d) Unperforated casing and seal shall extend from land surface to a depth of 250 feet below land surface.

3) Which is NOT a requirement of an individual licensed under ORS 537.747?
   a) Pay a $150 fee for a two year license
   b) Obtain a minimum of 14 continuing education credits during each licensing period.
   c) Maintain their own continuing education records.
   d) All of the above are requirements.

4) In the case of hydrofracturing:
   a) All tools and propping agents shall be disinfected prior to placement in the well.
   b) Propping agents may not be injected into the well to hold the fractures open when the pressure is removed.
   c) Commingling of waters within the well bore is allowed.
   d) The well shall not be hydrofractured within 50 feet of the bottom of the existing well casing.
5) All flowing artesian wells shall be equipped with a pressure gauge placed on a dead-end line. What should be placed between the gauge and well casing?

   a) A petcock valve.
   b) A check valve
   c) An air/vacuum relief valve
   d) A diverter valve

6) Which is **not** true of liner pipe?

   a) Liner pipe installed through caving formations and installed without driving, may be of lighter weight than specified by table 210-2 under OAR 690-210-0190.
   b) All liner pipe shall be of steel, in new or like new condition, being free of pits or breaks; or shall be of polymerized vinyl chloride (PVC) type 1220 or 1120 and SDR 26 (Class 160) or greater wall thickness.
   c) Liner pipe installed in a well shall extend or telescope at least eight feet into the lower end of well casing.
   d) Liner pipe shall be permanently fixed to the well casing or borehole wall using packers or grout.

7) Which is true regarding the deepening of wells?

   a) The static water level shall be recorded prior to and after deepening a well.
   b) The deepening of a water supply well shall not result in the commingling of aquifers.
   c) Both are true.
   d) Neither are true.

8) If, after notice and opportunity for hearing under ORS 183.310 to 183.550 the Director determines that one or more violations have occurred, the Director may impose any reasonable conditions on the Water Supply Well Constructors License to insure correction of the violation and the future compliance with the law. These conditions may include:

   a) Fulfilling any outstanding obligations which are the result of administrative action before the constructor can offer any services or construct, alter or abandon any well.
   b) Requiring additional advance notice to be given to the Department of construction, alteration, or abandonment of any well.
   c) Requiring a seal placement notice be given to the Department 24 hours in advance of placing the seal.
   d) All of the above.
9) Which of the following would be classified as metamorphic rock?
   a) Sandstone
   b) Shale
   c) Gneiss
   d) Basalt

10) Place the letter of the quarter-quarter locations listed below in the correct quarter-quarter in the section.

   a. cb
   b. NESW
   c. ad
   d. NWNW

Answers: