

## Quizzes and Questions for the 2006 UPC Chapter 5 Water Heaters OR

RV.8/14/11

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### **DO NOT BOOK MARK IN YOUR WEB BROWSER!**

#### **How to take this Course.**

**1. Download and Print the Quizzes.**

**2. Login** to your account using your ID and password.

**3. Status** page for your account appears. **Click on link: “Click here to start this course.”**



**4. Start viewing the web pages.** Refer to your printed quizzes to find the correct answers. The questions track the web pages.

5. As you find the correct answers, circle them on your printed sheet.

6. At the end of each chapter is an online quiz, which is exactly what you printed. Refer to your circled answers and click on the correct answer on the web quiz page.

7. Upon passing, you will proceed to the next chapter. If you do not pass a chapter test, you will start again at the beginning of that chapter.

**Note -- phone users Use it at your own risk!**

Quiz 1

Quiz Questions

<b>UPC TABLE 5-1<sup>1</sup> FIRST HOUR RATING</b>											
Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5			
Number of Bedrooms	1	2	3	2	3	4	5	3	4	5	6
First Hour Rating, <sup>2</sup> Gallons	42	54	54	54	67	67	80	67	80	80	80
<sup>1</sup> The first hour rating is found on the “Energy Guide” Label <sup>2</sup> Non-storage and solar water heaters shall be sized to meet the appropriate first hour rating as shown in the table.											

1) Size the water heater for a house with 3 Bathrooms and 4 Bedrooms.  
42 54 67 80

Bathroom and 3 Bedrooms.  
42 54 67 80

2) Size the water heater for a house with 1

3) Size the water heater for a house with 2 Bathrooms and 5 Bedrooms.

# Quizzes and Questions for the 2006 UPC Chapter 5 Water Heaters OR

RV.8/14/11

42 54 67 80

4) Size the water heater for a house with 3 Bathrooms and 6 Bedrooms.

42 54 67 80

5) Size the water heater for a house with 1 Bathroom and 2 Bedrooms.

42 54 67 80

6) Size the water heater for a house with 1 ½ Bathrooms and 3 Bedrooms.

42 54 67 80

7) Size the water heater for a house with 2 Bathrooms and 3 Bedrooms.

42 54 67 80

8) No water heater shall be hereafter installed which does not comply in \_\_\_\_\_ respects with the type and model of each size thereof approved by the Authority Having Jurisdiction. All Some Most A few

9) A Hot Water Supply Boiler is under the jurisdiction of the Oregon \_\_\_\_\_ Specialty Code

Mechanical Flue Gas Boiler/  
Pressure Vessel Residential

10) A direct vent water heater is constructed and installed so that all air for combustion is derived directly from the outside atmosphere and all flue gases are discharged directly to the outside atmosphere.

True False

11) To be classified as a water heater, the vessel must be 80 gallons or less in volume.

True False

12) To be classified as a water heater, the vessel must not exceed 120 degrees F.

True False

13) To be classified as a water heater, the vessel should not exceed 150 psi operating pressure.

True False

14) To be classified as a water heater, the vessel must have a BTUH of no more than 200,000 BTUH.

True False

15) Water heaters regulated by this code include domestic water heater designed to create hot water instantaneously on demand

without the use of a storage tank.

True False

Quiz 2

1) A chimney can have more than one (1) passageway.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

2) A chimney is required to be vertical.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

3) A factory-built chimney is required to be composed of listed-only, factory-built components.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

4) A field-constructed masonry chimney must have a suitable chimney flue liner.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

5) A field-installed flexible metal flue liner is considered to be a metal chimney.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

6) Pertaining to materials in contact with heat-producing appliances, combustible materials do NOT include flame-proofed, fire-retardant treated, or plastered material.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

7) Direct-vent appliances are required to be constructed and installed so that all flue gases are discharged to the outside atmosphere.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

8) Definition: Direct-vent appliances are required to obtain all air for combustion directly from the outside atmosphere.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

9) A direct-vent appliance must obtain a percentage of its combustion air from the interior of the house.

## Quizzes and Questions for the 2006 UPC Chapter 5 Water Heaters OR

RV.8/14/11

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

10) A flue collar is that portion of an appliance designed for the attachment of a draft hood, vent connector, or venting system.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

11) It permitted to use a Type B gas vent with Category II, III, or IV gas appliances.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

12) It is permitted to use Type L vent material on appliances listed for use with Type B gas vents.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

13) The Type L pellet vent is rated for flue temperatures exceeding 570° F.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

14) An indirect-fired water heater consists of a storage tank equipped with an internal or external heat exchanger used to transfer heat from an external source to heat potable water.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

15) A vent is a passageway used to convey flue gases from gas utilization equipment or their vent connectors to the outside atmosphere.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

16) Definition: A vent connector is the pipe or duct that connects a fuel gas burning appliance to a vent or chimney.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

17) A venting system is a continuous open passageway to the outside atmosphere for the purpose of obtaining air for combustion.

Definition adopted in Oregon 2006 UPC Code Cycle.

True False

18) A water heater is an appliance for supplying hot water for domestic purposes and NOT commercial purposes.

True False

Quiz 3

1) Which activities can be performed on a water heater without a permit?

maintenance installation removal  
replacement

2) An inspection of a chimney or vents must be made after installation and before any such vent or part thereof has been covered or concealed.

Section adopted in Oregon 2006 UPC Code Cycle.

True False

3) When must a final water heater inspection be made by the AHJ?

When the work authorized by the permit is installed.

When the installation has been installed to code.

Prior to covering or concealing any of the work.  
All of the above.

4) It is permitted to install a B-vent style water heater in a bathroom if it is installed in the linen/towel closet and is not visible.

True False

5) It is permitted to install a B-vent style water heater in a bedroom if it is installed in a closet and is not visible.

True False

6) A water heater can be installed in a bedroom area if it is of the direct vent style.

True False

7) A water heater installed in a bedroom must meet which of the following requirements?  
Be located in a closet exclusively for the use of the water heater.

The closet must have a combustion air vent obtaining air from outside.

Must have self-closing hinges on the door.

Must have gaskets around the entire door.

All of the above.

8) A water heater can be installed under a stairway or landing if it is not prohibited by other regulations.

True False

9) It required that water heaters be located as close as practical to a chimney or gas vent.

# Quizzes and Questions for the 2006 UPC Chapter 5 Water Heaters OR

RV.8/14/11

True

False

Mechanical Code 2006 UPC

10) Listed water heaters are NOT required to be installed in accordance with their manufacturers' instructions.

True

False

5) Each indirect water heater shall have a label that certifies that the heater has been tested and has met the \_\_\_\_\_ requirements.

UPC            UMC            ASHREA  
ASME                            RSES

11) All unlisted water heaters shall be installed with a clearance of at least 12 inches (300 mm) on all sides and rear.

True

False

6) The pressure relief on a hot water boiler connected to an indirect-fired water heater is limited to a maximum of \_\_\_\_\_ psig.

10   20            30            40            50

12) All water heater installations are to be provided with over-pressure protection by means of an approved listed device.

True

False

7) The transfer medium for an indirect-fired water heater that uses a single-wall heat exchanger shall be potable water or a fluid having a toxicity rating of:

Class 1            Class 2            Class 3  
NON-Classified

13) Only unlisted water heater installations shall be provided with over-temperature protection.

True

False

8) The toxicity rating is determined from which of the following manuals?

Merck Chemical Digest  
US Encyclopedia of Chemistry  
Pharmacy Digest  
Clinical Toxicology

14) Installation of temperature, pressure, and vacuum relief devices and automatic gas shutoff devices, shall be in accordance with the terms of their listings and NOT the manufacturers' instructions.

True

False

9) The required labeling –using the word “Caution” for an indirect-fired water heater that uses a single-wall heat exchanger shall be

\_\_\_\_\_ .  
UPPER CASE  
lower case  
either case

15) A shutoff valve shall be placed between the relief valve and the water heater, or on discharge pipes between such valves and the atmosphere.

True

False

10) The minimum size of the letters for the word “Caution” for the required label shall be at least

\_\_\_\_\_ .  
0.120                            0.250                            0.385  
0.500                            1.000

16) The Btu hourly discharge capacity or the rated steam relief capacity of the pressure relief device shall NOT be less than the input rating of the water heater.

True

False

## Quiz 4

1) Prior to installation of an oil-burning water heater, the AHJ must approve the location.

True

False

## Quiz 5

1) Section 507.0 – Air for Combustion and Ventilation has been adopted in the Oregon amendments.

True

False

2) An oil-fired water heater must have combination temperature and pressure-relief valve.

True

False

2) The Authority Having Jurisdiction always requires the use of an approved dielectric insulator on the water piping connections of water heaters and related water heating equipment.

True

False

3) An oil-fired water heater must comply with Oregon Mechanical Specialty Code  
Oregon Residential Specialty Code

Both of the above

Neither of the above

3) Water heaters installed in seismic design category F are required to be anchored or strapped to resist horizontal displacement due to earthquake motion.

True

False

4) An indirect-fired water heater must conform to the following code(s)?

ASME Boiler/ Pressure Vessel Code Uniform



# Quizzes and Questions for the 2006 UPC Chapter 5 Water Heaters OR

RV.8/14/11

## Quiz 6

1) Section 508.18-24. Venting of Gases, Pipe Capacity, Pressures Regulators: has been adopted for the 2006 UPC code cycle.

True                      False

2) Section 508.25 Combination of Equipment has been adopted for the 2006 UPC code cycle.

True                      False

3) Combination of fuel-gas water heaters must comply with the following standard.

Oregon Mechanical Specialty Code

Oregon Residential Specialty Code

Universal Mechanical Code

National Fuel Gas Code

4) Which of the following must be left at the job site by the installation crew after finishing a water heater installation?

Manufacturer's instructions.

Phone number of installation company.

Copy of invoice.

Business cards for installation company.

5) Section 508.27. Protection of Outdoor Equipment has been adopted for the 2006 UPC code cycle.

True                      False

6) Section 509.1. Equipment on Roofs has been adopted for the 2006 UPC code cycle.

True                      False

7) On rooftops, the minimum clearance between a service panel and the wall of the enclosure is \_\_\_\_\_ inches.

16            24            30            36            Not

adopted for the 2006 UPC code cycle.

8) All access locks, screws and bolts shall be of corrosion-resistant material.

This section has been adopted in the 2006 UPC code cycle.

True                      False

9) At least 6 feet of clearance shall be available between any part of the equipment and the edge of a roof and have guardrails at least 42 inches in height on the exposed side.

This section has been adopted in the 2006 UPC code cycle.

True                      False

10) On a roof top, the electrical disconnect within sight of the equipment.

This section has been adopted in the 2006 UPC code cycle.

True

False

11) On roof top equipment, a 120-volt, grounded receptacle must be supplied.

This section has been adopted in the 2006 UPC code cycle.

True

False

12) Buildings more than \_\_\_\_\_ feet in height shall have an inside means of access to the roof, unless other means acceptable to the Authority Having Jurisdiction are used.

10            15            20            28

13) The minimum trap door size shall be \_\_\_\_\_ inches.

22x24            24x30            28x36

32x36

14) At least \_\_\_\_\_ feet of clearance shall be available between the access opening and edge of the roof

2    4            6            8            10

15) (continued) ..... or shall have rigidly fixed rails at least \_\_\_\_\_ inches in height on the exposed side.

24    36    42            48            60

16) Permanent lighting shall be provided at the roof access, located inside the building near the access leading to the roof.

True                      False

## Quiz 7

1) Attic access shall have a passageway of at least \_\_\_\_\_ inches.

22x24            22x30            28x36

32x36

2) If the attic is less than 6 feet in height, then the distance to the appliance shall not exceed \_\_\_\_\_ feet.

15            20            28            30

3) The width of a passageway in an attic should not be less than \_\_\_\_\_ inches.

16            18            24            28

32

4) The size of a level platform in front of a gas appliance in an attic should be at least \_\_\_\_\_ inches.

24x24            30x30            32x32

36x36

5) In an attic, it is required that a 120-volt receptacle and a lighting fixture be placed near the appliance?

**Quizzes and Questions for the 2006 UPC Chapter 5 Water Heaters OR**  
RV.8/14/11

True

False