

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

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Quiz 1

Question 1: Which of the following is NOT part of the basic circuit?

load source of power path fuse
switch

Question 2: Which of the following is NOT a type of electrical wiring diagram?

- a. Stick
- b. Line
- c. Pictorial
- d. Schematic
- e. Only c & d ARE types of electrical wiring diagrams

Question 3: A ladder diagram is also known as a _____.

Stick Line Pictorial Schematic

Question 4: To determine the relative physical position of the electrical components of a system one would use a _____ diagram.

Stick
Line
Schematic
Ladder

Question 5: Electricity can be understood by comparing it to a closed loop hydraulic system.

In this model, amps are similar to _____.

Water pressure in PSIG
Water flow in GPM
Resistance to flow in head loss
Pipes

Question 6: Electricity can be understood by comparing it to a closed loop hydraulic system.

In this model, ohms are similar to _____.

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

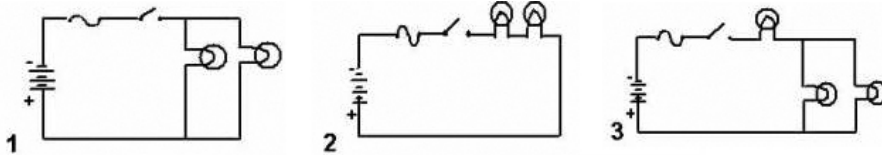
Water pressure in PSIG
Water flow in GPM
Head loss
Pipes

Question 7: Electricity can be understood by comparing it to a closed loop hydraulic system. In this model, power voltage is similar to _____.

Water pressure in PSIG
Water flow in GPM
Resistance to flow in head loss
Pipes

Question 8: Electricity can be understood by comparing it to a closed loop hydraulic system. In this model, the rating of an electrical wire is similar to _____.

Water pressure in PSIG
Water flow in GPM
Head loss through a hydraulic load
Pipes



Question 9: Which of the above illustrations shows a series circuit?

- 1
- 2
- 3

Question 10: Which of the above illustrations shows a parallel circuit?

- 1
- 2
- 3

Question 11: Which of the above illustrations shows a series-parallel circuit?

- 1
- 2
- 3

Question 12: A CONDUCTOR usually means a wire.

- True
- False

Question 13: A LOAD is a device that generates electrical power.

- True
- False

Question 14: An example of a LOAD would be _____.

- A light
- A motor
- An AC compressor
- A portable heater
- All of the above

Quiz 2

Question 1: A battery generates _____.

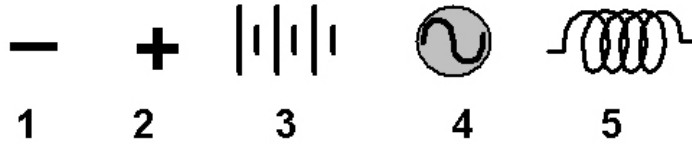
- Direct current
- Alternating current
- Pulse current
- Reversed Sine Wave current

Question 2: A portable generator makes _____.

- Direct current
- Alternating current
- Pulse current
- Reversed Sine Wave current

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011



Question 3: Which of the above symbols is used for electricity generated by a battery?

1 2 3 4 5

Question 4: Which of the above symbols is used for electricity generated by a mechanical device?

1 2 3 4 5

Question 5: At the power generation station, a(n) _____ transformer is used.

Isolation
Step-up
Step-down

Question 6: At a sub-station near the end user, a(n) _____ transformer is used.

Isolation
Step-up
Step-down

Question 7: At a sub-station, the types of transformers used would be _____.

Wye
Star
Delta
Any of the above

Question 8: On a WYE voltage system, the expected voltage between each leg would be _____ volts.

110 120 208 240

Question 9: On a WYE voltage system, the expected voltage between a leg and Neutral (N) would be _____ volts.

110 120 208 240

Question 10: On a DELTA voltage system, the expected voltage between each leg would be _____ volts.

110 120 208 240

Question 11: On a DELTA voltage system, the expected voltage between a leg and Neutral (N) would be _____ volts.

110 120 208 240

Question 12: A transformer can do each of the following EXCEPT _____.

Increase AC voltage
Decrease AC voltage
Convert AC voltage to DC voltage
Isolate AC voltage

Question 13: A transformer that electrically isolates the power source from the electrical equipment is called a(n) _____ transformer.

Isolation
Step-up
Step-down
Multi-tap

Question 14: The transformer described in question 13 has _____ coils or windings on the primary side compared to the secondary side.

The same number of
More
Fewer

Question 15: A transformer that decreases the voltage below the voltage level of the power source is called a(n) _____ transformer.

Isolation
Step-up
Step-down
Multi-tap

Question 16: The transformer described in question 15 has _____ coils or windings on the primary side compared to the secondary side.

The same number of
More
Fewer

Question 17: A transformer that increases the voltage above the voltage level of the power source is called a(n) _____ transformer.

Isolation
Step-up
Step-down
Multi-tap

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Question 18: The transformer described in question 17 has _____ coils or windings on the primary side compared to the secondary side.

- The same number of
 More
 Fewer

Question 19: A transformer that has a number of taps or coils on the primary side that allow it to be used with a variety of different primary line voltages is called a(n) _____ transformer.

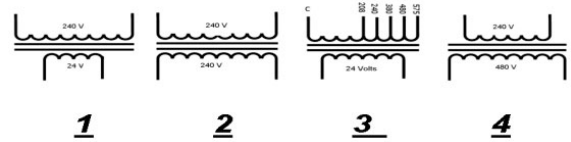
- Isolation Step-up Step-down Multi-tap

Question 20: The transformer described in question 19 has _____ coils or windings on the primary side compared to the secondary side.

- The same number of More Fewer

Question 21: A control voltage of 24 volts is generally preferred because _____.

- It requires smaller-sized wires
- It can be powered by small batteries
- It is safer in case someone touches it
- The parts and equipment are cheaper for manufacturers to produce



Question 22: An isolation transformer is shown in which of the above numbered illustrations?

- 1 2 3 4

Question 23: A step-up transformer is shown in which of the above numbered illustrations?

- 1 2 3 4

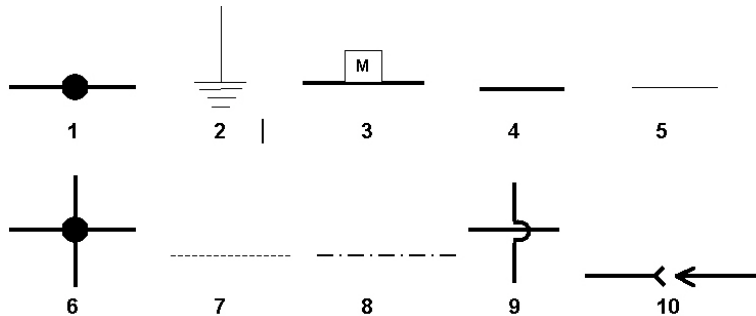
Question 24: A step-down transformer is shown in which of the above numbered illustrations?

- 1 2 3 4

Question 25: A multi-tap transformer is shown in which of the above numbered illustrations?

- 1 2 3 4

Quiz 3



Question 1: Which of the above is the symbol for Field Line Voltage?

- 2 4 6 8 10

Question 2: Which of the above is the symbol for Field Low Voltage?

- 1 3 4 5 7

Question 3: Which of the above is the symbol for Factory Low Voltage?

- 1 3 5 7 9

Question 4: Which of the above is the symbol for Factory Line Voltage?

- 1 2 4 6 9

Question 5: Which of the above is the symbol for Marked or Flagged Line?

- 3 4 5 7 10

Question 6: Which of the above is the symbol for Butt Splice Connector?

- 1 2 4 5 8

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Question 7: Which of the above is the symbol for Wired Cross and Connected?

1 3 5 6 10

Question 8: Which of the above is the symbol for Wires Cross and NOT Connected?

2 3 5 7 9

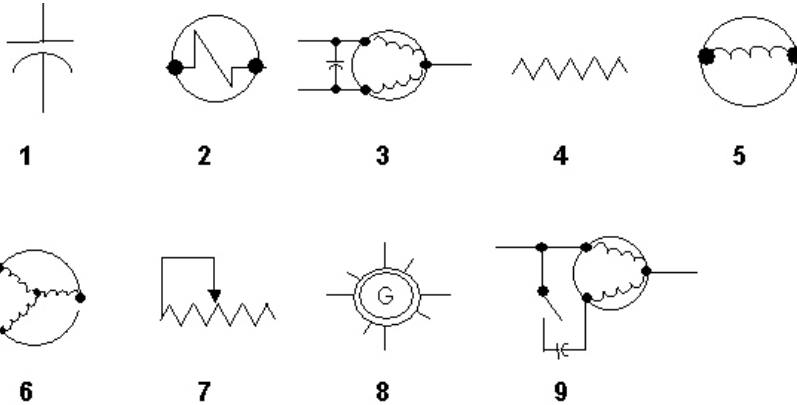
Question 9: Which of the above is the symbol for EQUIPMENT GROUND?

2 7 8 9 10

Question 10: Which of the above is the symbol for a Molex Plug Connection?

2 4 6 8 10

Quiz 4



Question 1: Which of the above symbols represents an indicator light?

4 5 6 7 8

Question 2: Which of the above symbols represents a resistance heater?

1 2 3 4 5

Question 3: Which of the above symbols represents an adjustable rheostat?

2 4 6 7 9

Question 4: Which of the above symbols represents a shaded pole motor?

1 2 3 4 5

Question 5: Which of the above symbols represents a capacitor start motor?

5 6 7 8 9

Question 6: Which of the above symbols represents a run or start capacitor?

1 2 3 4 5

Question 7: Which of the above symbols represents a PSC motor?

1 2 3 4 5

Question 8: Which of the above symbols represents a 3-phase motor?

2 4 6 8 10

Question 9: Which of the above symbols represents a solenoid?

1 2 3 4 5

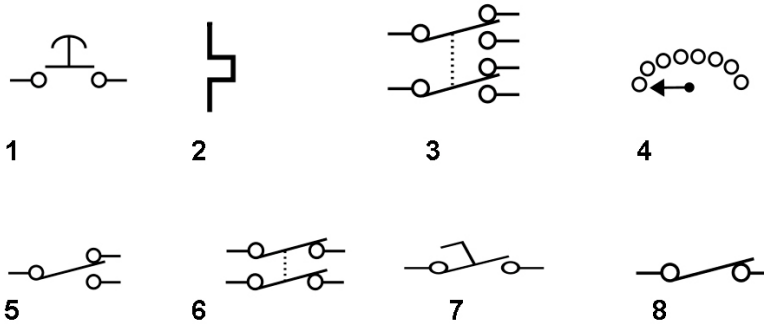
Question 10: The primary force that moves a solenoid coil is _____.

- Magnetic energy
- Potential energy
- Kinetic energy
- None of the above

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Quiz 5



Question 1: Which of the above symbols represents a start-stop button?

1 4 6 7 8

Question 2: Which of the above symbols represents a single pole, double throw switch?

1 3 5 7 8

Question 3: Which of the above symbols represents a double pole, single throw switch?

2 4 6 7 8

Question 4: Which of the above symbols represents a double pole, double throw switch?

1 2 3 4 5

Question 5: Which of the above symbols represents a single pole, single throw switch?

5 6 7 8

Question 6: Which of the above symbols represents a foot switch?

4 5 6 7 8

Question 7: Which of the above symbols represents a rotary switch?

1 2 3 4 5

Quiz 6

Question 1: A bi-metal _____.

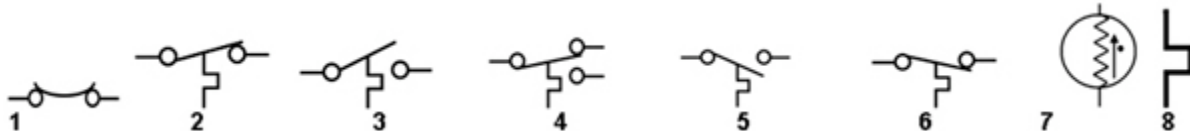
Consists of 2 metals with different expansion rates welded together

Is used to sense temperature changes

Can be wound in a spiral

All of the above

None of the above



Question 2: Which of the above is the commonly shared symbol for all temperature-controlled devices?

4 5 6 7 8

Question 3: Which of the above symbols represents a SPST temperature switch in the closed position?

1 2 3 4 5

Question 4: Which of the above symbols represents a SPST temperature switch which closes on temperature rise ?

1 2 3 4 5

Question 5: Which of the above symbols represents a SPDT temperature switch?

1 2 3 4 5

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Question 6: Which of the above symbols represents a Klixon control?

1 2 3 4 5

Question 7: A Klixon control is mounted
Internally in a motor
Externally on a motor
Never on a motor
1 and/or 2

Question 8: A Klixon control switch could also be used to prevent overheating of resistant heaters on an electrical furnace.

True False

Question 9: A basic heat/cool thermostat has how many switches?

1 2 3 4

Question 10: On a basic thermostat, the _____ colored wire from the thermostat connects to the Indoor Blower Motor Relay coil.
Red Green Yellow White

Question 11: On a basic thermostat, the _____ colored wire from the thermostat connects to the Compressor Contactor coil.
Red Green Yellow White

Question 12: On a basic thermostat, the _____ colored wire from the thermostat connects to the Heating Sequencer coils.
Red Green Yellow White

Question 13: On a basic thermostat, the _____ colored wire from the thermostat connects to the Ground.
Red Green Yellow White
None of these

Question 14: On a basic thermostat, a Cooling Anticipator is energized on a CALL for Cooling.
True False

Question 15: On a basic thermostat, a Heating Anticipator is energized on a Call for Heating.
True False

Question 17: The Heat Anticipator is an adjustable resistor.
True False

Question 18: The Cooling Anticipator is an adjustable resistor.
True False

Question 19: There are _____ types of thermistors.
2 3 4 8

Question 20: A thermistor is used to measure_____.
Temperature Pressure Conductivity
Amps Voltage

Question 21: Which of the symbols shown in the illustration located above Question 2 represents a thermistor?
4 5 6 7 8

Question 22: PTC means_____.
Positive Temperature Coefficient
Permanent Transparent Category
Poly Temperature Cache
Positional Transference Coefficient

Question 23: NTC means_____.
Not To be Copied
Negative Temperature Coefficient
Neutral Transference Coefficient
Natural Transfer Cache

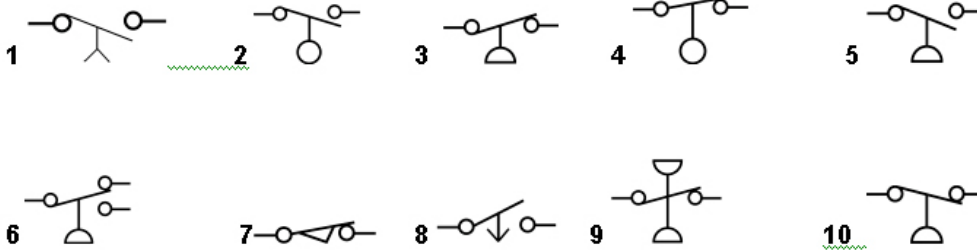
Question 24: A _____ type of thermistor can be used in lieu of starting components in an electric motor.
CSCR
PSC
PTC
NRA

Question 25: The thermistor removes the start windings from the circuit by increasing the windings' resistance.
True False

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Quiz 7



Question 1: Which of the above symbols represents a N.O. close on pressure rise control?

1 2 3 4 5

Question 2: Which of the above symbols represents a N.C. open on pressure rise control?

1 2 3 4 5

Question 3: Which of the above symbols represents a N.C. open on pressure decrease control?

6 7 8 9 10

Question 4: Which of the above symbols represents a SPDT pressure switch?

6 7 8 9 10

Question 5: Which of the above symbols represents a SPST pressure differential switch?

6 7 8 9 10

Question 6: Which of the above symbols represents a Float switch – close on rise of fluid?

1 2 3 4 5

Question 7: Which of the above symbols represents a Float switch – open on rise of fluid?

1 2 3 4 5

Question 8: Which of the above symbols represents a Motion Limit switch?

6 7 8 9 10

Question 9: Which of the above symbols represents a Delay on Break switch?

6 7 8 9 10

Question 10: Which of the above symbols represents a Delay on Make switch?

1 2 3 4 5

Question 11: A sequencer _____.
Has a 24-volt heater (typical)

Has one or more delay on make switches.
Usually has N.O. contacts.
All of the above

Question 12: A Time Delay Electronic Relay is typically wired in series to the control coil of the relay or contactor.
True False

Question 13: Electronic Time Delay Relays are always non-adjustable.
True False

Question 14: A Delay on Make would likely control the indoor blower motor in the heating mode.
True False

Question 15: A Delay on Make would likely control the blower on a Heat Pump or Air Conditioning system.
True False

Question 16: A Delay on Break would likely be found on an indoor blower motor in the heating mode.
True False

Question 17: All Time Delays are manufactured with both a Delay on Make and a Delay on Break function incorporated in a single control device.
True False

Question 18: The purpose of a Fuse is to limit the current flow to a system.
True False

Question 19: Most Fuses have a non-melting internal metal strip.
True False

Question 20: Most Fuses cannot be reset.
True False

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Question 21: A Magnetic Circuit Breaker acts like a Fuse, except that it can be reset.
True False

Question 22: A Magnetic Circuit Breaker reacts to increases in a magnetic field due to current flow.
True False

Question 23: A Humidistat responds to the amount of moisture in the air.
True False

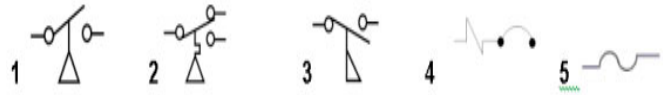
Question 24: A Humidistat can either close on humidity increase or open on humidity increase.
True False

Question 25: A Sail switch is used aboard watercraft.
True False

Question 26: A Flow switch is used to verify the speed of a boat or ship.
True False

Question 27: An Enthalpy control measures both air temperature and humidity.
True False

Question 28: An Enthalpy control is used in an economizer for "free" outdoor air cooling.
True False



Question 29: Which of the above symbols represents a Fuse?
1 2 3 4 5

Question 30: Which of the above symbols represents a Magnetic Circuit Breaker?
1 2 3 4 5

Question 31: Which of the above symbols represents a Humidistat?
1 2 3 4 5

Question 32: Which of the above symbols represents a Sail switch?
1 2 3 4 5

Question 33: Which of the above symbols represents an Enthalpy control?
1 2 3 4 5

Quiz 8

Question 1: A contactor uses a solenoid coil to initiate mechanical movement.
True False

Question 2: A contactor may have one or more set of contacts.
True False

Question 3: The load carrying contacts in a contactor are normally open. closed.

Question 4: The voltage of the contactor coil is usually shown on the coil.
True False

Question 5: The control voltage to a coil could be
24 volts 120 volts 240 volts
any of the above.

Question 6: A contactor with built-in overloads is known as a Magnetic Starter
True False

Question 7: The overload in a magnetic starter is also known as the
Cooler Protector Heater Warmer

Question 8: A mag-starter is like a contactor except it_____
Has magnesium on the contact points instead of silver
Is only used for single-phase operations
Has built-in overload protectors
Must be mounted in a vertical position

Question 9: In a mag-starter, if one overload protector fails, the two remaining protectors will carry the load.
True False

Question 10: Overload protectors would open up or trip because of_____
Excessive current draw on at least 1 line voltage leg.
Excessive current draw on at least 2 line voltage legs.

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Excessive current draw on at least 3 line voltage legs.
None of the above

Question 11: In normal operation, the overload protector connections are _____.
Closed Opened

Question 12: The maximum load that a relay can usually carry is _____ amps @ 120 volts.
5 12 16 20

Question 13: A relay uses a solenoid coil to activate a mechanical pivotal arm.
True False

Question 14: A relay can have more than one set of switches and each switch can be either SPST or SPDT.
True False

Question 15: Incoming power connections on a relay are usually terminals _____.
1 and 4
2 and 5
3 and 6
The unmarked contacts

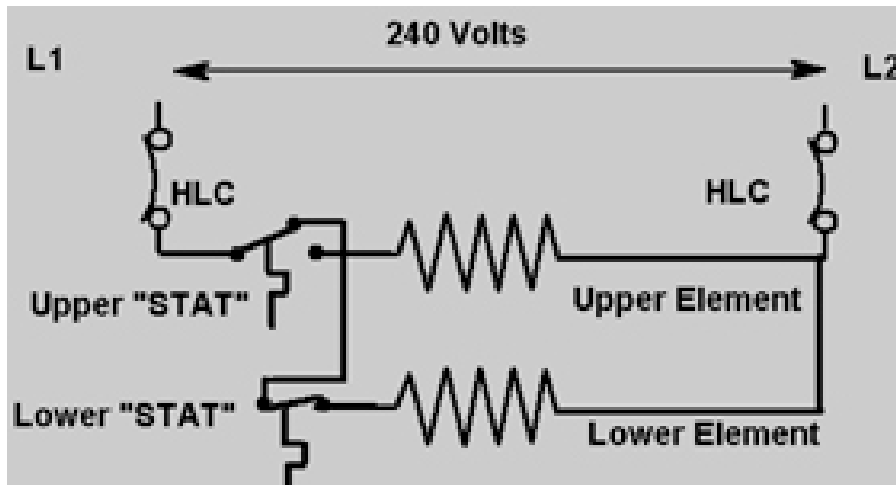
Question 16: N.O. contacts on a relay are between terminal numbers _____.
1 and 2
1 and 3
2 and 3
The unmarked contacts

Question 17: N.C. contacts on a relay are between terminal numbers _____.
1 and 2
1 and 3
2 and 3
The unmarked contacts

Question 18: The terminals used for the coil contacts are _____.
1 and 4
2 and 5
3 and 6
The unmarked contacts

Question 19: The coil voltage for a relay can be _____.
24 volts
120 volts
240 volts
any of the above voltages

Quiz 9



Question 1: In a ladder diagram, the power legs form the _____ of the ladder.
Rails
Rungs
Hooks
Handles

Question 2: Usually Line 1 (or L1) is on the left-hand side of the diagram.
True
False

Question 3: The HLC refers to _____.
High Limit Control
Hot Limit Control

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Higher Light Control
Hot Liquid Control

Question 4: On a water heater, the HLC operates as an over-temperature safety control.
True False

Question 5: The HLC also closes its contacts when the temperature is too hot.
True False

Question 6: In a ladder diagram, the loads form the _____ of the ladder.
Rails
Rungs
Hooks
Handles

Question 7: The lower element is connected in _____ with the upper element.
Series
Parallel
Series/parallel

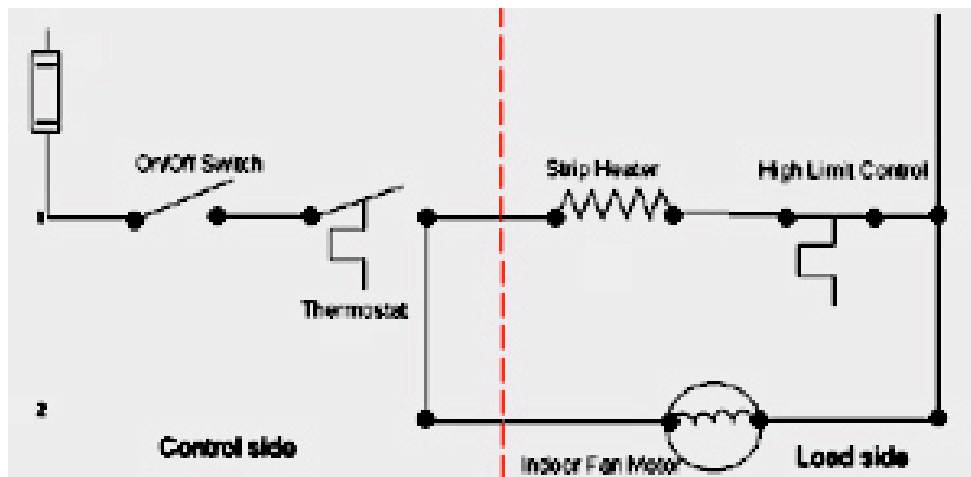
Question 8: The lower element is energized only when _____.
a. The upper thermostat is hot
b. The lower thermostat is cold
c. Both a and b
d. Neither a or b

Question 9: The upper thermostat in a water heater is a _____ switch.
SPST
SPDT
DPST
DPDT

Question 10: The lower thermostat in a water heater is a _____ switch.
SPST
SPDT
DPST
DPDT

Question 11: The HLC is a _____ switch.
SPST
SPDT
DPST
DPDT

Quiz 10



Question 1: It is common to show a switch on the right side of the load.
True False

Question 2: The On/Off switch is in _____ with the thermostat.
Series
Parallel
Series/ parallel

Question 3: The fan motor is in _____ with the thermostat.
Series
Parallel
Series/ parallel

Question 4: The fan motor is in _____ with the strip heater.

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Series
Parallel
Series/parallel

Question 5: The High Limit Control is in _____ with the strip heater.

Series
Parallel
Series/parallel

Question 6: The fan only comes on when the thermostat is _____.

Open
Closed
Neither – it is not connected to the thermostat

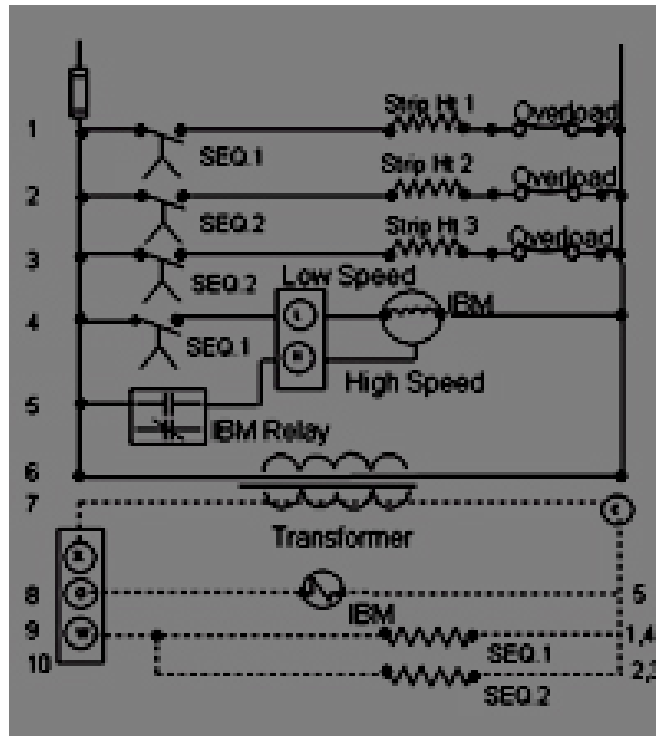
Question 7: The following are 24-volt controls or safeties _____.

On/Off Switch
Thermostat
HLC
There are no 24-volt controls

Question 8: Line locator numbers are usually shown _____.

On the left side of the wire diagram
On the right side of the wire diagram
Across the bottom of the wire diagram
Across the top of the wire diagram

Quiz 11



Question 1: The transformer in the above diagram is used to convert _____.

120 volts to 24 volts
24 volts to 120 volts
240 volts to 120 volts
120 volts to 240 volts
Line voltage to control voltage

Question 2: The high voltage section is shown at the _____ of the diagram.

Bottom half
Middle section
Top half

Question 3: The low voltage section is shown at the _____ of the diagram.

Bottom half
Middle section
Top half

Question 4: The dividing line between the high and low voltage is the _____.

Voltage regulator
Transformer
Battery
Power generator

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Question 5: The No.1 sequencer controls____.
Heat strip No.1
Low speed fan
High speed fan
1 & 2
None of the above

Question 6: The Summer Fan is _____.
High speed
Low speed

Question 7: The summer, or high speed fan,
is controlled by_____.
Sequencer No. 1
Sequencer No. 2
Sequencer No. 3
IBM relay

Question 8: The IBM relay controls the relay
contacts located on line _____.
1 2 3 4 5

Question 9: Sequencer No. 1 (line 9)
controls a component located on lines _____.
1 & 2
1 & 3
1 & 4
1 & 5

Question 10: Sequencer No. 2 (line 10)
controls a component located on lines _____.
1 & 2
2 & 3
3 & 4
5 & 6

Question 11: On a Fan on Call, the
thermostat contacts that make are _____.
R to G
R to W
R to Y
R to O

Question 12: On a Fan on Call, the N.O.
contacts on the IBM relay close, allowing
electrical current to pass to the high-speed IBM
windings.
True False

Question 13: On a Heat Call, the thermostat
contacts that make are
R to G
R to W
R to Y
R to O

Question 14: On a Heat Call, the component
that is first energized is _____.
Sequencer No.1
Sequencer No. 2
Both Sequencers No.1 and 2
IBM relay

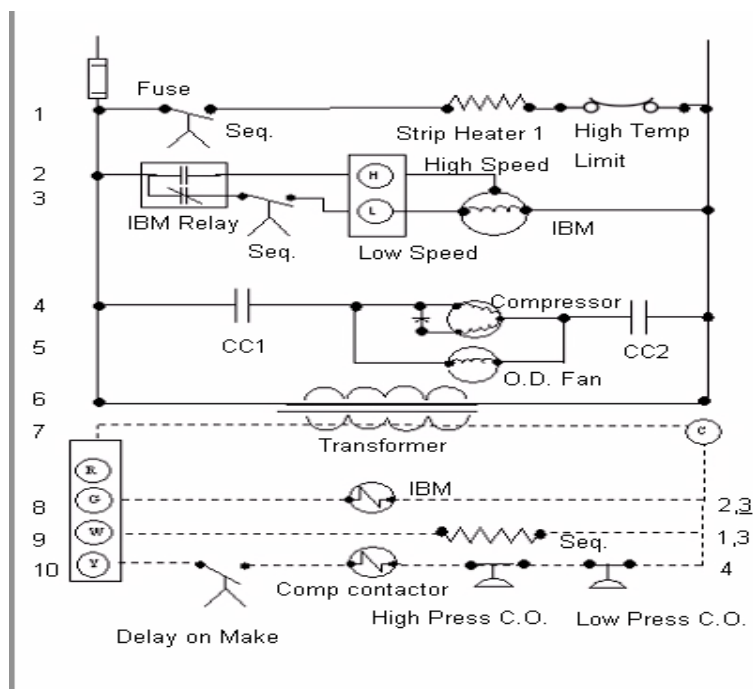
Question 15: On a Heat Call, all of the
sequencer contacts close simultaneously.
True False

Question 16: On a Heat Call, the safety
device(s) in the system is (are) the _____.
IBM
Overload
IBM Relay
Transformer

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Quiz 12



Question 1: The contacts for No.1 Sequencer are placed in series with the low speed fan.

True False

Question 2: The contacts for No.1 Sequencer are placed in series with the N.C. contacts on the IBM relay.

True False

Question 3: The contacts for No.1 Sequencer are placed parallel with the high speed fan.

True False

Question 4: On the wiring diagram the compressor motor as shown in the diagram is a_____.

- Shade Pole
- Capacitor start
- PSC
- 3-phase motor

Question 5: On the wiring diagram, the compressor contactor coil is in series with the _____ thermostat terminal.

- R
- G
- W
- Y

Question 6: On the wiring diagram, a _____ pole contactor is shown.

- Single
- Double
- Triple

Question 7: On the wiring diagram, a High Pressure Cut-out is located in series with:

- The IBM relay coil
- The Sequencer No. 1 24-v heater
- The compressor contactor coil
- The Heat Strip No.1

Question 8: A High Pressure Cut-out will activate on the failure of the_____.

- High speed IBM
- Low speed IBM
- Compressor motor
- Outdoor fan motor

Question 9: A Low Pressure Cut-out is in series with the_____.

- IBM relay coil
- Sequencer No. 1
- 24-v heater
- Compressor contactor coil

Question 10: A Low Pressure Cut-out will activate_____.

- Upon a refrigerant leak
- On the failure of the compressor motor
- On the failure of the outdoor fan motor
- On the failure of Sequencer No. 1

Question 11: On the wiring diagram, the primary purpose of a Time Delay is to_____.

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Allow the operator to cancel a cooling call without damage to the system
 Make sure that the conditioned space temperature has passed the set point
 Allow the IBM time to come to full speed before the compressor is engaged
 Allow system pressures to equalize before the compressor is engaged

Question 12: On the wiring diagram, the IBM relay controls the line voltage electrical components located on lines _____.

- 1 & 2
- 2 & 3
- 3 & 4

5
 None of the above

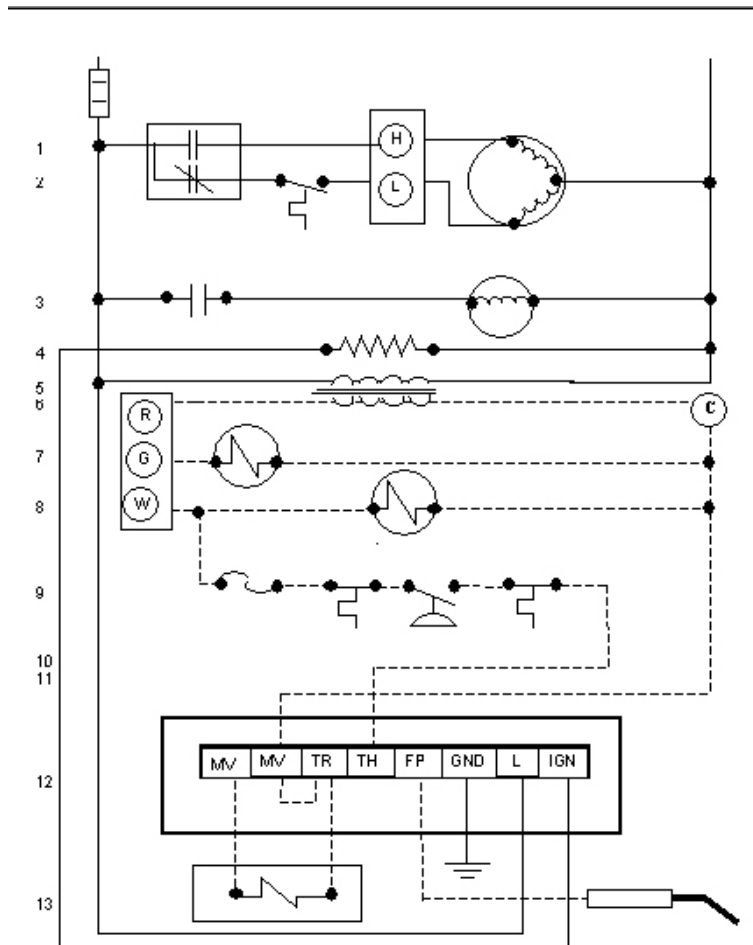
Question 13: On the wiring diagram, the Sequencer controls the line voltage electrical components located on lines:

- 1 & 2
- 1 & 3
- 1 & 4
- None of the above

Question 14: On the wiring diagram, the compressor contactor controls the compressor motor located on line _____.

- 1
- 2
- 3
- 4
- 5

Quiz 13



Question 1: Which of the following is NOT a major type of ignition system for gas furnaces?
 Standing Pilot
 Spontaneous Ignition

Proven Spark Ignition
 Hot Surface Ignition

UNDERSTANDING ELECTRICAL DIAGRAMS

RV 2.14.2011

Question 2: The Ignition Control Module is powered from the _____ 24-volt thermostat terminal.

R G W

Question 3: The gas valve is a _____.

Resistance heater
Solenoid
Shaded pole motor
PSC motor
Heat strip

Question 4: A flame sensor is placed in the _____.

Indoor air stream
Outdoor flue exhaust
Burner flame
Ductwork supplying warm air to the conditioned space

Question 5: The Hot Surface Igniter is a _____.

Resistance heater
Solenoid
Shaded pole motor
PSC motor
Heat strip

Question 6: The Temperature Activated Fan Control is in series with the _____.

N.C. contacts of the fan relay
N.O. contacts of the fan relay
High Speed motor windings of the IBM
None of the above

Question 7: Safety switches are placed in _____ with the ignition module.

Series
Parallel
Series/parallel

Question 8: The primary purpose of the vent motor is to remove explosive gases that may be present in the combustion chamber.

True
False

Question 9: The vent motor relay is energized on a _____ call.

R to G
R to W

R to Y
R to O

Question 10: The purpose of the pressure switch is to verify that there is sufficient gas pressure at the burners.

True False

Question 11: The vent motor relay controls a line voltage device found on line _____.

1 2 3 4 5

Question 12: On a call for heat, after the pressure switch closes, nothing appears to be happening except the vent motor continues to run. This is because _____.

There is a time delay purge function built into the control module

The gas valve requires a warm-up time
The vent motor is a slow-start motor and requires time to get up to the proper RPM
There is a time requirement for the high temperature switches to close

Question 13: The time required for a pre-purge can be found on the face of the ignition module.

True False

Question 14: The igniter warm-up time can be found on the face of the ignition module.

True False

Question 15: The time that the gas valve is open can be found on the face of the ignition module.

True False

Question 16: If a flame is established, a small DC current is sent through the flame sensor, through the flame and to the ignition module to confirm that combustion has occurred.

True False

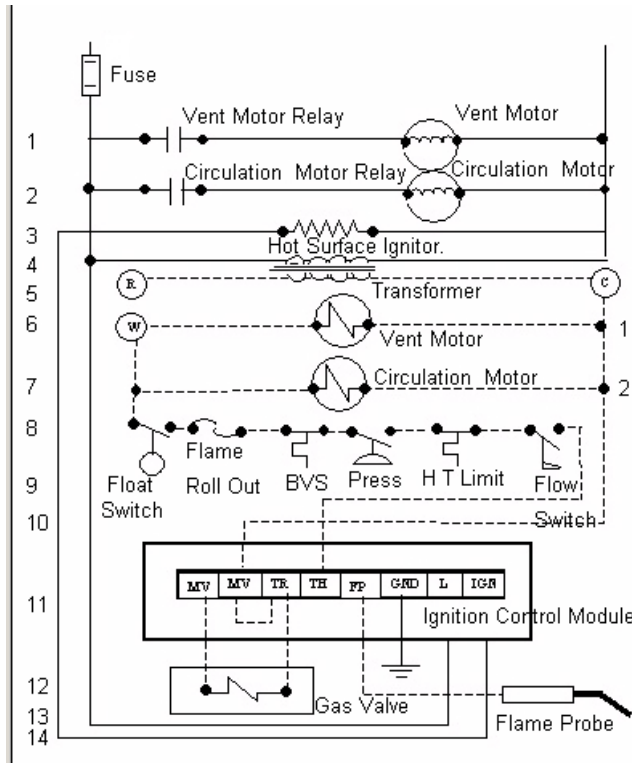
Question 17: If combustion is not confirmed after four seconds, the unit may retry the ignition sequence. The number of retries is shown on the face of the ignition control module.

True False

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RV 2.14.2011

Quiz 14



Question 1: A circulation pump has been added to the system. The pump contacts close _____ the vent motor contacts close.

- Before
- At the same time as
- After

Question 2: A safety device has been added to make sure that an adequate level of water is present in the boiler prior to ignition. This safety device is a _____ switch.

- Float
- Pressure
- Aqua stat

Question 3: A safety device has been added to make sure that an adequate flow of water is present in the boiler prior to ignition. This safety device is a _____ switch.

- Float
- Pressure
- Aqua stat
- High limit
- Flow

Question 4: If the circulation motor malfunctions, will the ignition sequence operation be completed?

- Yes
- No

Question 5: If the vent motor malfunctions, will the ignition sequence operation be completed?

- Yes
- No

Question 6: If the BVS is open, will the ignition sequence operation be completed?

- Yes
- No

Question 7: The ignition of the gas continues until _____.

- R to W is open
- R to G is open
- R to Y is open
- R to O is open

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Quiz 15

Question 1: All manufacturers must use the same symbols and methods of construction in making wire diagrams and schematics.
True False

Question 2: A line under a locator on the right-hand side indicates a_____.
N.O. contact
N.C. contact
24-volt control
Time delay control

Question 3: A bracket over a locator on the right-hand side indicates a_____.
N.O. contact
SPST switch
SPDT switch
DPST switch

Question 4: Standard practice for wire diagram construction requires that each component be identified with a label.
True False

Question 5: A Legend identifies the symbols that are used in a wire diagram.
True False



A



B



C

Question 6: On a terminal identification diagram, which of the following is used to identify a Marked Terminal?
A B C

Question 7: On a terminal identification diagram, which of the following is used to identify an Unmarked Terminal?
A B C

Question 8: On a diagram with a relay labeled 1R, the nomenclature 1R-1 refers to the switches having terminals_____.
1, 2, 3
4, 5, 6
On the control coil

Question 9: There are some diagrams that number the wires and not the rungs. All components that are electrically tied together will have the same number.
True False

Question 10: There are some diagrams that number the wires and not the rungs. The basic rule for this method is to start at the top of the diagram and use the same number on both ends of a wire.
True False

Question 11: There are some diagrams that number the wires and not the rungs. The number can only be changed when a wire passes through a load or a switch.
True False

Question 12: There are some diagrams that number the wires and not the rungs. Each number is used only on an uninterrupted path.
True False