

NAME: _____

DATE: _____

Choose the best answer. Each question has one best answer.

2A:1) What is the difference between an AC Clamp-meter and an AC/DC Clamp-meter?

- ☐ A) An AC Clamp-meter can only measure AC current
- ☐ B) An AC/DC Clamp meter can measure both AC or DC current
- ☐ C) Either meter can measure AC or DC voltage
- ☐ D) All of the above

2A:2) What do you use the probes on a Clamp-meter for?

- ☐ A) AC or DC voltage
- ☐ B) Resistance, Continuity, Diodes and Capacitance
- ☐ C) Small currents under 10 amps
- ☐ D) A and B
- ☐ E) All of the above

2A:3) What does the HOLD function do?

- ☐ A) Locks the screen to prevent damage to the meter
- ☐ B) Holds the screen on zero amps
- ☐ C) Holds the screen on zero volts
- ☐ D) Holds the screen to the last measured value

2A:4) What does the REL button do on an AC/DC Clamp-meter

- ☐ A) Checks for DC offset on an AC current
- ☐ B) DC current zero and offset adjustment
- ☐ C) Sets maximum absolute current
- ☐ D) A and B
- ☐ E) All of the above

2A:5) What is a True RMS meter

- ☐ A) Automatically sets amperage and voltage range
- ☐ B) Calculates average current or voltage of distorted waveforms
- ☐ C) RMS means Root Mean Square
- ☐ D) B and C
- ☐ E) None of the above
- ☐ F) All of the above

Part B Quiz 2B:1-5

2B:1) How do you place the clamp meter around an extension cord?

- ☐ A) Make sure the entire extension cord is fully within the clamp jaws
- ☐ B) Make sure only one load conductor is within the jaws
- ☐ C) You can pinch the conductor with the jaw tips for more accurate measurements
- ☐ D) B and C

2B:2) Why is a current splitter needed?

- ☐ A) If you have both the neutral and line conductors in the clamp jaws the measured load current will null out to zero
- ☐ B) Not needed for shore power measurements
- ☐ C) Separates out ground leakage current for GFCI tripping measurements
- ☐ D) A and C
- ☐ E) None of the above

2B:3) Can you test air conditioner surge currents with all clamp meters?

- ☐ A) Yes: All Clamp meters have a peak high-current setting
- ☐ B) No: Clamp-meters don't have that function
- ☐ C) Maybe: But the clamp-meter needs an Inrush or peak current setting
- ☐ D) Only if you have a special set of test probes

2B:4) Can you test GFCI leakage current with a clamp-ammeter

- ☐ A) Yes: If you have a special low-current tester with a 1mA range
- ☐ B) Yes: You can use a standard 10mA range clamp meter with a 10X booster winding
- ☐ C) No: You need a special GFCI tester for this
- ☐ D) A and B

2B:5) Do you need to make your own 30 or 50 amp dogbone splitter?

- ☐ A) No: It's too complicated and dangerous
- ☐ B) Yes: You just need to sacrifice a 30-to-50 amp dogbone adapter
- ☐ C) You can find 30 or 50-amp conductor splitters on eBay or Amazon
- ☐ D) B and C

Part C Quiz 2C:1-5

2C:1) How do you measure battery charging and discharge currents?

- ☐ A) Clamp the meter around the positive (Red) battery conductor
- ☐ B) Clamp the meter around the negative (Black) battery conductor
- ☐ C) Hold the clamp meter anywhere near the battery
- ☐ D) A and B
- ☐ E) All of the above

2C:2) Do you need to zero your clamp meter for DC current measurements?

- ☐ A) No: They always auto-zero when turned on
- ☐ B) Yes: Stray magnetic fields can bias DC measurements
- ☐ C) Yes: There can be gamma rays disturbing the magnetic field
- ☐ D) A and B

2C:3) What do HOLD button do?

- ☐ A) Set for long-term hold currents
- ☐ B) Will automatically switch between AC and DC current
- ☐ C) Holds the last measurement on the screen
- ☐ D) All of the above

2C:4) What is a dim-bulb test?

- ☐ A) Uses an LED bulb in place of the fuse to limit fault current while testing for short circuits
- ☐ B) Uses an incandescent bulb in place of the fuse to limit fault current while testing for short circuits
- ☐ C) You can use an AC/DC clamp-meter with a dim-bulb test to discover short circuits inside of walls
- ☐ D) A and C
- ☐ E) B and C

2C:5) How much current should you measure while charging RV batteries?

- ☐ A) As high as 20-amps per 100Ah 12-volt FLA battery
- ☐ B) As high as 100-amps per 100Ah 120-volt Lithium Battery
- ☐ C) Some 400Ah Lithium batteries with a special charger can measure as high as 240 amps
- ☐ D) A and B
- ☐ E) All of the above

Part D Quiz 2D:1-5

2D:1) How do you measure temperature with a Clamp-meter?

- ☐ A) Set the dial to C/F temperature and point the clamp at the surface
- ☐ B) Plug in the special thermocouple into the probe jacks and set the dial to C/F temperature
- ☐ C) Set the meter to Temperature "C" and plug in a loop of copper wire between input jacks
- ☐ D) Clamp-meters can't measure temperature

2D:2) How do you measure an A/C starting capacitor with a clamp meter?

- ☐ A) Set the meter to Capacitance and clamp the jaws around the wires while connected to the motor
- ☐ B) Plug in the meter probes and touch them to the starting capacitor while the A/C is powered up
- ☐ C) Make sure power is off, discharge the capacitor, and disconnect it from the motor before touching the probes to the capacitor
- ☐ D) You need special meter probes to measure capacitance

2D:3) Can you use a Clamp Ammeter to measure Non-Contact Voltage?

- ☐ A) No: Clamp-meters don't have a NCVT function
- ☐ B) Yes: All clamp meters have NCVT function
- ☐ C) Maybe: Many Clamp meters can test Non-Contact AC voltage at a distance
- ☐ D) You need a special adapter to test for AC voltage at a distance

2D:4) Do you need a meter with 3-phase voltage testing capability?

- ☐ A) No: You will never encounter 3-phase service in a campground
- ☐ B) Yes: All campgrounds use 120/208-volt 3-phase service
- ☐ C) Maybe: New campgrounds are now allowed by the NEC to distribute 3-phase power to split-phase rated pedestals
- ☐ D) No: You can use a regular meter to measure 3-phase power if you understand the basics of 3-phase WYE and High-Leg Delta service
- ☐ E) C and D

2D:5) Why do need a Hz setting?

- ☐ A) Inverter generators must be set to 60 Hz frequency
- ☐ B) Contractor and most onboard RV generators should be set to 60 Hz
- ☐ C) Hz doesn't matter since it's all converting to DC anyways
- ☐ D) A and B