

Name _____ Date _____

Question #1

- The actual process of arc welding began in the early _____ when Sir Davey discovered that an electrical current would jump an air gap.

□ _____

Question #2

- The arc welding _____ is the most important part of the arc welding process.

□ _____

Question #3

- The purpose of an arc welding machine is to transform electrical energy into heat energy.

□ _____ - The air gap between the electrode and base metal creates enough heat through resistance for welding to take place.

Question #4

- _____ energy is the type of energy needed for the welding process.

□ _____ - Heat is generated through resistance.

Question #5

- Ampere is defined as:

□ _____

Question #6

- Current is defined as:

□ _____

Question #7

- Resistance is defined as:

□ _____

Question #8

- Voltage is defined as:

□ _____

Question #9

- Which of the following is not part of an arc welding circuit?

- Electrode holder
- Welding machine
- Welding booth
- Cable lug

Question #10

- If a welding machine is not properly grounded, the current may enter the welder's body and cause shock.

□ _____ - It is important to have sufficient ground while welding.

Question #11

- The purpose of the insulation around the jaws of an electrode holder is to prevent the metal jaws from coming in contact with the welding table or the work piece.

□ _____ - Without this insulation, the electrode holder could arc on the base metal.

Question #12

- If the electrode holder being used becomes hot, the cause may be:

□ _____

Question #13

- Welding cables are made of thousands of hair-like copper wires.

□ _____

Question #14

- You can assume that a welding machine is safe to use unless it has been disconnected from the outlet and a lock has been placed on the circuit box switch.

□ _____ - Never assume anything.

Question #15

- The purpose of the ground clamp is to provide a path for current to flow from ground cable to the welding machine.

□ _____ - When dealing with electricity, the circuit must be closed in order for welding to occur.

Question #16

- If you find that a ground or electrode cable is loose where it is connected to the ground or electrode lug, you should

□ _____

Question #17

- When the electrode holder is forced against the base metal, enough heat energy is produced to cause the electrode and the base metal to melt.
- _____ - SMAW (stick) and GMAW (mig) use consumable electrodes.

Question #18

- Always check the cable connections to the ground clamp and electrode holder before you start to weld.
- _____ - Inspection of equipment prior to use is a good practice.

Question #19

- The purpose of wrapping paper or other material around the cable scooper wires is to prevent moisture from gathering on these wires.
- _____ - Welding cables are wrapped in a material to prevent moisture from gathering on the copper wires.

Question #20

- If you notice a damaged ground or electrode cable, continue to use the welding machine until the instructor tells you that the cables are unsafe.
- _____ - Never use damaged equipment. An out of order sign should be placed on damaged equipment.