Gas tungsten arc welding uses a consumable steel electrode.
   True    False

A spherical shaped electrode is used when welding with AC in the GTAW process.
   True    False

ACHF stands for alternating current high frequency.
   True    False

Aluminum conducts heat 3 to 5 times faster than steel.
   True    False

Thermal expansion of aluminum is half that of steel.
   True    False

Aluminum alloys are extremely susceptible to porosity
   True    False

The GTAW process is a hydrogen free process.
   True    False

Which of the following is not a function of a GTAW torch?
   a. Making electrical connection to the work
   b. Cooling the electrode
   c. Directing shielding gas
   d. Holding the electrode

What are the correct measurements for shielding gas flow rates?
   a. gallons per hour
   b. liters per minute
   c. cubic feet per hour
   d. cubic feet per minute

Which of the following currents are to be used for TIG welding aluminum
   a. ACHF
   b. DCRP
   c. DCSP
   d. DCEP/EN

What is the function of a collet in GTAW
   a. conducts heat away from the tungsten
   b. transfers current to the tungsten
   c. a & b
   d. none of the above

GTAW Module
Which of the following gasses is not used as a shielding gas for GTAW?
   a. argon
   b. carbon dioxide
   c. helium
   d. argon and helium mixtures
   e. none of the above

What welding current is most commonly used for welding mild steel with GTAW?
   a. DCRP
   b. DCSP
   c. ACHF
   d. AC

In The PCC Welding shop what type of tungsten is preferred for GTAW of mild steel?
   a. EWTh-2
   b. EWP
   c. EWTh-1
   d. none of the above

What type of shielding gas is required for GTAW?
   a. Reactive
   b. Inert
   c. Heavy
   d. All of the above

What determines the type of filler used?
   a. Electrode type
   b. Current choice
   c. Material composition
   d. All of the above

Which electrode has a red color code?
   a. EWP
   b. EWTh2
   c. EWth1
   d. EWZr

What effect does thorium have when alloyed with tungsten?
   a. Makes it stronger
   b. Prevents rust
   c. Increases current capacity
   d. All of the above
What is the purpose of post flow?
   a. To allow the water to cool the torch
   b. **To shield the puddle during solidification**
   c. To supply gas prior to establishing a puddle
   d. All of the above

Tungsten is used in GTAW because
   a. it is a good electrical conductor
   b. it has a high melting temperature
   c. it will not contaminate the weld
   d. **both a and b**

The tungsten should stick out no farther than which one of the following?
   a. ½ inch (13mm)
   b. **the diameter of the cup**
   c. it depends on the metal
   d. it depends on the joint

What does ACHF mean?
   a. **Stabilized alternating current**
   b. High fusion Aluminum current
   c. Aluminum coalesced with heat fusion
   d. Alternating current with high fill

Which of the following electrodes would you choose for welding Aluminum.
   a. EWTh2
   b. EWP
   c. EWZr
   d. **Both b and c**

The oxide on Aluminum is removed during welding by which of the following currents.
   a. **DCRP part of AC**
   b. DCSP part of AC
   c. Both parts of AC
   d. None of the above

The alloy element that provides corrosion resistance in stainless steel is:
   a. Iron
   b. **Chromium**
   c. Nickel
   d. Columbium
Which group of stainless steel is magnetic?
   a. Austenitic
   b. Ferritic
   c. All of the above
   d. None of the above

Which alloy element effects the hardness of stainless steel?
   a. Iron
   b. Carbon
   c. Chromium
   d. Nickel

Carbide precipitation is the undesirable result of:
   a. Carbon and chromium combining to form carbides
   b. Iron and carbon combining to form carbides
   c. Cobalt and nickel combining to form carbides
   d. Carbon and nickel combining to form carbides

Black oxides may appear on a stainless weld if
   a. the wrong filler metal is used
   b. too much heat is used when welding
   c. too short an arc length is used
   d. too small a tungsten is used

The end of the filler rod must be kept close to the weld zone
   a. to keep the rod cool so it does not melt
   b. because it is much easier to see and control
   c. to keep the rod hot so it melts easier
   d. to prevent it from oxidizing

Why must the shielding gas start flowing before the arc and current are started?
   a. to allow time to position the tungsten before the arc starts
   b. it is used for automatic work only
   c. it is used to remove air from the welding zone
   d. none of the above

Which current is used for the GTAW root pass for welding carbon steel pipe?
   a. DCEN
   b. DCSP
   c. DC-
   d. All of the above
When the pipe is fixed in the vertical position the weld joint is
a.  5G
b.  6G
c.  2G
d.  1G