Study Guide - EDM

Multiple Choice
Identify the choice that best completes the statement or answers the question.

___ 1. On a typical four axis wire EDM machine, one set of coordinates is designated as X and Y. How are the other two axes identified?
   a. A and B
   b. U and V
   c. I and J
   d. X2 and Y2

___ 2. This process is the thermal erosion process in which metal is removed by a series of recurring electrical discharges between a cutting tool acting as an electrode and a conductive workpiece, in the presence of a dielectric fluid.
   a. Electric - Dielectric Machining
   b. Electrical Discharge Machining
   c. Erosion Discharge Machining
   d. Stylus Terminated Ultraviolet Discharge

___ 3. There are two main types of EDMs; the ______ (or sinker) and the _____. Each are used to produce very small and accurate parts as well as large items like automotive stamping dies and aircraft body components. The largest single use of EDM is in die making
   a. Internal --- External
   b. Horizontal --- Vertical
   c. Ram --- Wire
   d. Manual --- Automatic

___ 4. Which of the following is not a function of the dielectric fluid used in EDM?
   a. Provide a path for the discharge of electric current.
   b. Polishes the machined (recast) layer.
   c. Cools the workpiece
   d. Removes metal particles (tiny “chips”) from the gap

___ 5. In EDM, the cutting tool is actually:
   a. Contacting the work
   b. An electrode
   c. Non-consumable
   d. Hardened to provide long tool life

___ 6. The EDM workpiece must be:
   a. Small in size
   b. Pre-heated
   c. Conductive
   d. Kept cool

___ 7. The largest single use of EDM is for:
   a. Automotive parts
   b. Aircraft components
   c. Small parts production
   d. Die making

___ 8. EDM electrodes are made of:
   a. High temperature alloys
   b. Carbon steel
   c. Copper or graphite
   d. Titanium alloys

___ 9. The main disadvantage of wire EDM is:
   a. Slower metal removal rates
   b. Wire electrode is consumable
   c. More operator intervention is required
   d. Long setup times