

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 Yield
- _____ 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