Lesson 13

Quiz Key

1. Inherent discontinuities are:
   a. Just a property of the alloy of metal.
   b. All removed by cropping.
   c. <u>Formed when molten metal solidifies</u>.
   d. Discontinuities that exist inside the material below the surface.

2. Discontinuities are:
   a. Always defects and usually rejected.
   b. Either acceptable or rejected.
   c. Either relevant or nonrelevant.
   d. Discontinuities that cause the test object to fail.

3. Level II magnetic particle technicians should always be able to evaluate if an indiction is relevant, false or nonrelevant, and if it is rounded or linear.
   a. <u>True</u>
   b. False

4. An example of a processing discontinuity that is the result of an inherent discontinuity changing shape during rolling is a:
   a. Cooling crack.
   b. Burst.
   c. Lap.
   d. <u>Lamination</u>.

5. A common processing indication in rolled bar stock is:
   a. <u>Seam</u>.
   b. Lap.
   c. Hot tear.
   d. Cold shut.

6. A burst may be found in a:
   a. Casting.
   b. <u>Forging</u>.
   c. Ingot.
   d. Weld.

7. A common discontinuity in a weld or casting that is difficult to detect by magnetic particle testing is:
   a. A crack.
   b. <u>Porosity</u>.
   c. Shrinkage.
   d. Lamination.

8. Cracks may occur at any stage of manufacturing.
   a. <u>True</u>
   b. False

9. A weld discontinuity that always occurs at the root of a weld is:
   a. Lack of fusion.
   b. Slag inclusions.
   c. <u>Lack of penetration</u>.
   d. Undercut.

10. Fatigue cracking is always caused by a single overloading.
    a. True
    b. <u>False</u>

11. Hydrogen will cause porosity if present during heat treating or welding.
    a. True
    b. <u>False</u>

12. A slag inclusion in a weld is normally found in a weld crater.
    a. True
    b. <u>False</u>