Assignment 8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

1. In a submerged arc welding:
   - non-consumable tungsten electrode is used
   - consumable electrode is used
   - arc stability is better than in MIG welding
   - welding is generally carried out by submerging basic electrode under water
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: consumable electrode is used

2. Heat generation in resistance spot welding is mainly dictated by:
   - resistance of the electrodes
   - built-in resistance of the sheet to be welded
   - contact resistances between the sheet to be welded
   - electrode diameter
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: contact resistance of the interfaces between the sheet to be welded

3. When electrode force in resistance spot welding increases:
   - weld nugget diameter increases
   - contact resistance between the facing interfaces decreases
   - heat generation does not significantly change
   - weld resistance of the electrodes increases
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: contact resistance between the facing interfaces decreases

4. Prior to time the welds resistance spot welding thermal cycle is:
   - increase the temperature gradients before the start of welding
   - reduce the cooling rate upon welding
   - refine the grain size
   - to reduce resolidification
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: reduce the cooling rate upon welding

5. Typical acceptable weld nugget diameter in resistance spot welding is:
   - 4 mm
   - 6 mm
   - 8 mm
   - 10 mm
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: 4 mm

6. Weld nugget diameter in resistance spot welding is:
   - directly proportional to current
   - directly proportional to element of the electrode
   - inversely proportional to welding time
   - not related to thickness of the sheet
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: directly proportional to current

7. One of the major problems in resistance spot welding of galvanized automotive sheets is:
   - melting of electrodes
   - diffusion of zinc to electrode surface
   - oxidation of copper
   - diffusion of copper to steel
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: diffusion of zinc to electrode surface

8. For a given welding current, if the welding time is increased:
   - welding voltage increases
   - weld becomes softer
   - weld nugget diameter increases
   - welding voltage decreases
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: weld becomes softer

9. The most likely reason for resistance spot weld to:
   - weld surface
   - fusion boundary
   - base metal
   - void
   - no, the answer is incorrect. Score: 1 point
   - Accepted Answer: weld surface

10. Past pulling in resistance spot welding generally carried out to:
    - homogenize the elemental segregation and temper the microstructure
    - form martensitic microstructure so that weld becomes stronger
    - quench the weld
    - increase the ductility
    - no, the answer is incorrect. Score: 1 point
    - Accepted Answer: homogenize the elemental segregation and temper the microstructure