Unit 7 - Week 6

Assignment No. 6

The due date for submitting this assignment has passed. **Due on 2019-09-11, 23:59 IST.**
As per our records you have not submitted this assignment.

1) Skin effect phenomena is observed in **1 point**
- Laser hardening
- Electron beam hardening
- Flame hardening
- Induction hardening

No, the answer is incorrect.
Score: 0
Accepted Answers: Induction hardening

2) Parameters of induction hardening that need to be controlled to achieve the required depth of **1 point**
hardening is
- Speed of coil
- Power of induction heating
- Frequency of AC
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers: All of the above
3) Surface modification technique in which surface of the substrate is remelted is
   - Tungsten inert gas welding
   - Shot peening
   - Cold spraying
   - Contour rolling
   No, the answer is incorrect.
   Score: 0
   Accepted Answers: *Tungsten inert gas welding*

4) Surface modification of austenitic stainless steels through work hardening approach is based on
   - Reduction of grain size
   - Increasing the dislocation density
   - Precipitation of secondary phases in the soft austenitic matrix
   - All of above
   No, the answer is incorrect.
   Score: 0
   Accepted Answers: *Increasing the dislocation density*

5) Elongated structures & flattening of peaks and valleys are the characteristic features of
   - Laser heating
   - Burnishing
   - Flame hardening
   - Induction hardening
   No, the answer is incorrect.
   Score: 0
   Accepted Answers: *Burnishing*

6) The shot peening of steel results in
   - Residual compressive stresses
   - Residual compressive stresses in the bulk material
   - Residual tensile stresses at the surface
   - Residual compressive stress at the surface & residual tensile stress at the sub surface region
   No, the answer is incorrect.
   Score: 0
   Accepted Answers: *Residual compressive stress at the surface & residual tensile stress at the sub surface region*

7) Friction Stir Processing leads to
   - Development of weld joint
   - Elimination of defects
   - Development of coating
   - Elimination of fine grains
   No, the answer is incorrect.
   Score: 0
   Accepted Answers: *Elimination of defects*
8) Hardening Precipitates in Al 7xxx alloy is
   - Mg2Si
   - MgZn2
   - Al2Cu
   - All of the above
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - MgZn2

9) The surface modification technique that leads to no change in surface chemistry of the substrate is
   - Remelting
   - Burnishing
   - Laser hardening
   - All of the above
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - All of the above

10) Surface modification technique like plasma, nitriding through change in composition helps to increase
    - Tensile strength & hardness
    - Toughness
    - Wear resistance
    - All of the above
    No, the answer is incorrect.
    Score: 0
    Accepted Answers:
    - All of the above