Assignment No. 12

The due date for submitting this assignment has passed. Due on 2019-10-23, 23:59 IST. As per our records you have not submitted this assignment.

1) During tempering, with increase in tempering temperature, hardness of hardened plain carbon steel

- Increases
- Decreases
- First increases then decrease
- First decreases then increase

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

2) Lower bainite phase formed in austempering results in

- High strength, hardness, ductility, toughness and distortion tendency
- High strength & hardness and reduced ductility, toughness & distortion tendency
- High strength, hardness, ductility & toughness and reduced distortion tendency
- High ductility & toughness and reduced strength, hardness & distortion tendency

No, the answer is incorrect.
Score: 0
Accepted Answers:
High strength, hardness, ductility & toughness and reduced distortion tendency

3) The purpose of surface engineering is

- Decreasing mechanical properties
Increasing friction
Increasing wear rate
Increase performance and life of component

No, the answer is incorrect.
Score: 0
Accepted Answers:
Increase performance and life of component

4) A process based on surface layer transformation hardening for surface modification is

- Shot Peening
- Burnishing
- Sand blasting
- Induction hardening

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

5) Chemical composition of the surface of the component is modified in case of

- Flame Hardening
- Carburizing
- Burnishing
- Plasma arc hardening

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

6) A surface coating of metallurgically incompatible metal with substrate material can be applied using

- Melting based methods
- Hot dipping
- Electrolysis based methods
- Mechanical methods

No, the answer is incorrect.
Score: 0
Accepted Answers:
Mechanical methods

7) The crystalline structure of the surface layer of the metallic substrate is damaged in case of

- Carburizing
- Nitriding
- Ion implantation
- Laser alloying

No, the answer is incorrect.
Score: 0
Accepted Answers:
Ion implantation

8) In transformation hardening, for martensite phase formation the cooling rate should be

- Low
9) Pores are generally found in thermal spray coatings, if

- Impinging velocity is high
- Impinging velocity is low
- Insufficient temperature of substrate
- Excessive temperature of material

No, the answer is incorrect.
Score: 0
Accepted Answers: Impinging velocity is low

10) Match the weld surfacing processes with corresponding applications

<table>
<thead>
<tr>
<th>Welding process</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Submerged arc welding</td>
<td>A. High-quality surfacing</td>
</tr>
<tr>
<td>2. Gas tungsten arc welding</td>
<td>B. General purpose weld surfacing</td>
</tr>
<tr>
<td>3. Shielded metal arc welding</td>
<td>C. Specific applications at industries</td>
</tr>
<tr>
<td>4. Flux cored arc welding</td>
<td>D. Large surface Deposition</td>
</tr>
</tbody>
</table>

- 1-D, 2-A, 3-B, 4-C
- 1-D, 2-A, 3-C, 4-D
- 1-C, 2-B, 3-D, 4-A
- 1-B, 2-C, 3-A, 4-D

No, the answer is incorrect.
Score: 0
Accepted Answers: 1-D, 2-A, 3-B, 4-C