Unit 10 - Week 9

Assignment 9

The due date for submitting this assignment has passed. **Due on 2018-03-28, 23:59 IST.**

Submitted assignment

1) In Autogeneous joining

- No filler material is added during joining
- Filler material used to provide the joint is the same as the parent material
- A filler material different from the parent material is used
- None of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
**No filler material is added during joining**

2) Arc, gas and thermit welding fall under the category of

- Solid-liquid state welding processes
- Solid state welding processes
- Fusion welding processes
- None of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
**Fusion welding processes**

3) Efficiency of heat source is defined as

- Energy transfer to the work piece \times \] Energy generated by the heat source
- Energy transfer to the work piece / Energy generated by the heat source
4) Which of the following zone lies next to the fusion boundary zone?  
- Grain refined zone  
- Partially transformed zone  
- Spherodized carbide zone  
- Grain growth zone

No, the answer is incorrect.

Score: 0

Accepted Answers:  
Grain growth zone

5) Which one of the following is a solid state joining process?  
- Gas tungsten arc welding  
- Resistance spot welding  
- Friction welding  
- Submerged arc welding

No, the answer is incorrect.

Score: 0

Accepted Answers:  
Friction welding

6) The filler material used for Soldering is  
- Al–Cu alloy  
- Pb–Sn alloy  
- Si–Ti alloy  
- Cu–Ag alloy

No, the answer is incorrect.

Score: 0

Accepted Answers:  
Pb–Sn alloy

7) The process of reheating the martensitic steel to reduce its brittleness without any significant loss in its hardness is  
- Normalizing  
- Annealing  
- Quenching  
- Tempering

No, the answer is incorrect.

Score: 0

Accepted Answers:  
Tempering

8) Which of the following statement is/are correct for Heterogeneous joining process?  
(i) A filler material different from the parent material is used  
(ii)Soldering and Brazing are falls under the category of Heterogeneous
joining process

- Only i
- Only ii
- Both i and ii
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
Both i and ii

9) Two 1 mm thick steel sheets are to be spot welded at a current of 5000A. Assuming effective resistance to be 200 micro-ohms and current flow time of 0.2 second, heat generated during the process will be

- 0.2 Joule
- 1 Joule
- 5 Joule
- 1000 Joule

No, the answer is incorrect.
Score: 0
Accepted Answers:
1000 Joule

10) Choose the most appropriate set of heat treatment process and the corresponding process characteristics

<table>
<thead>
<tr>
<th>Process</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Tempering</td>
<td>(i) Austenite is converted into bainite</td>
</tr>
<tr>
<td>(B) Austempering</td>
<td>(ii) Austenite is converted into martensite</td>
</tr>
<tr>
<td>(C) Martempering</td>
<td>(iii) Both hardness and brittleness are reduced</td>
</tr>
</tbody>
</table>

- A-iii, B-i, C-ii
- A-iii, B-ii, C-i
- A-ii, B-iii, C-i
- A-i, B-ii, C-iii

No, the answer is incorrect.
Score: 0
Accepted Answers:
A-iii, B-i, C-ii