Assignm8ent 7

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

1. Arrange the following in the increasing order of their carbon content.
   - Cast iron - Steel - Grey iron
   - Cast iron - Steel - Grey iron
   - Cast iron - Steel - Grey iron

   No, the answer is incorrect.

   Correct Answer: Steel > Grey iron > Cast iron

   1 point

2. During iron manufacturing, what products are formed when 3 moles of carbon monoxide react with 1 mole of coke at about 1200°C?
   - iron oxide, carbon monoxide
   - iron, carbon, and carbon monoxide
   - carbon dioxide
   - iron oxide, carbon

   No, the answer is incorrect.

   Correct Answer: iron, carbon, and carbon monoxide

   1 point

3. A coke is produced from the coal by the Cotter 411 process which is not selected. A and B are used in cement manufacturing as well. None of these are used in steel manufacturing as well. None of these are used in cement manufacturing as well. None of these are used in cement manufacturing as well.
   - A: Coke
   - B: Coke
   - C: Lime
   - D: Shaft

   No, the answer is incorrect.

   Correct Answer: A, B, D

   1 point

4. During iron manufacturing, the density of the by-product is more than the density of molten iron. State True or False.

   True

   1 point

5. During iron manufacturing, the by-product is an ingredient in the manufacturing of __________.

   Pig iron
   - Cast iron
   - Steel

   No, the answer is incorrect.

   Correct Answer: Pig iron

   1 point

6. What is the pressure (in psi) present in the core of the QT (or TMT) rebars immediately after the quenching process and before the rebar attains room temperature?

   4000 psi
   - 2000 psi
   - 3000 psi
   - 5000 psi

   No, the answer is incorrect.

   Correct Answer: 4000 psi

   1 point

7. The table gives the observations from the tests conducted on QT (or TMT) rebars manufactured by new companies A and B.

<table>
<thead>
<tr>
<th>Component</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>Hardness</td>
<td>40</td>
<td>70</td>
</tr>
</tbody>
</table>

   In your opinion, which company manufactures better quality rebars?
   - Company A
   - Company B
   - Both company A and B manufacture equal quality rebars
   - Both company A and B manufacture poor quality rebars

   No, the answer is incorrect.

   Correct Answer: Company B

   1 point

8. Which is the following item is used to enhance the corrosion resistance of steel?

   Copper
   - Stainless steel
   - Chromatlas
   - Carbon

   No, the answer is incorrect.

   Correct Answer: Stainless steel

   2 points

9. Which of the following is true regarding Cold-Treated Delayed (CTD) rebars and Mill T rolled (MT) rebars?

   For a given geometry, CTD rebars have higher yield strength than MT rebars.
   - For the same head and rod diameter, the percent elongation (ductility) of CTD rebars will be more than MT rebars.
   - CTD rebars have lower corrosion resistance than MT rebars.
   - The residual stresses at the surface of the CTD bars make them more vulnerable to corrosion compared to MT rebars

   No, the answer is incorrect.

   Correct Answer: For a given geometry, CTD rebars have higher yield strength than MT rebars.

   2 points

10. Which of the following is true regarding Cold-Treated Delayed (CTD) rebars?

   0.5% per year
   - 5% per year
   - 15% per year
   - 25% per year

   No, the answer is incorrect.

   Correct Answer: 0.5% per year

   2 points

11. Match the items from the list with the most suitable option in column X.

<table>
<thead>
<tr>
<th>Column X</th>
<th>A: Steel, B: Steel, C: Steel, D: Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A: Steel, B: Steel, C: Steel, D: Steel</td>
</tr>
<tr>
<td>A</td>
<td>C: Steel, A: B, C: Steel, D: Steel</td>
</tr>
<tr>
<td>B</td>
<td>C: Steel, A: B, C: Steel, D: Steel</td>
</tr>
<tr>
<td>C</td>
<td>C: Steel, A: B, C: Steel, D: Steel</td>
</tr>
<tr>
<td>D</td>
<td>C: Steel, A: B, C: Steel, D: Steel</td>
</tr>
</tbody>
</table>

   No, the answer is incorrect.

   Correct Answer: A: B, B: B, C: B, D: B

   0 points