Unit 4 - Week 3

Assignment No. 3

The due date for submitting this assignment has passed. Due on 2019-08-21, 23:59 IST. As per our records you have not submitted this assignment.

1) Arrange the following steps in correct sequence with respect to the step of casting process

1. Solidification
2. Melting
3. Ejection
4. Cleaning
5. Pouring

- 1,3,2,5,4
- 2,5,1,4,3
- 2,5,1,3,4
- 2,1,5,3,4

No, the answer is incorrect.
Score: 0
Accepted Answers: 2,5,1,3,4

2) Chills are primarily used in mould to

- Achieve directional solidification
- Reduce possibility of blow holes
- Reduce the solidification time
- Smoothen the metal by reducing spatter

No, the answer is incorrect.
Score: 0
Accepted Answers:
Achieve directional solidification

3) Match the following

1. Core
   A. Solidification shrinkage as shrinkage during solidification

2. Riser
   B. To support the core

3. Pattern allowances
   C. Solid shrinkage as shrinkage after solidification

4. Chaplets
   D. Hollow casting

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

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

4) Component used to support the core in the mould cavity is

   - Chills
   - Core
   - Riser
   - Chaplet

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

5) Dimensions of the Aluminium casting as height (H), width (W), depth (D), and hole diameter (d) are shown in sketch. Dimension of wooden pattern will be. (Assuming linear allowances for Al = .013 mm/mm)

   - H=202.6, W=303.9, D=151.95, d=29.61
   - H=202.6, W=303.9, D=151.95, d=30.39
   - H=197.4, W=296.1, D=148.05, d=29.61
   - H=197.4, W=296.1, D=148.05, d=30.39

   No, the answer is incorrect.
   Score: 0
   Accepted Answers: H=202.6, W=303.9, D=151.95, d=29.61

6) Dimensions of the Mg alloy casting as height (H), width (W), depth (D), and hole diameter (d) are shown in sketch. The dimension of pattern if it is to be made up of Aluminium will be:

   (Assuming double allowances for Al = .013 mm/mm and for Mg alloy = .016 mm/mm)
7) Negative allowance provided on the pattern is

- Draft allowance
- Machining allowance
- Distortion allowance
- Shake allowance

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

8) The part of gating system which regulates the rate of pouring of molten metal in the mould is

- Runner
- Pouring basin
- Choke
- Riser

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

9) Green sand mould indicates that

- Polymeric mould has been cured
- Mould has been totally dried
- Mould is green in colour
- Mould contains moisture

No, the answer is incorrect.
Score: 0
Accepted Answers:
Mould contains moisture

10) Match the following term (Group A) with the property (Group B)

- H=194.16, W=291.24, D=145.62, h=30.864
- H=194.16, W=291.24, D=145.62, h=29.136
- H=205.842, W=308.76, D=154.38, h=29.136
- H=202.6, W=303.9, D=151.95, h=29.61

No, the answer is incorrect.
Score: 0
Accepted Answers:
H=205.842, W=308.76, D=154.38, h=29.136
<table>
<thead>
<tr>
<th>Group-A</th>
<th>(Group-B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Refractoriness</td>
<td>A. Moisture content</td>
</tr>
<tr>
<td>2. Collapsibility</td>
<td>B. Ability of mould to sustain high temperature</td>
</tr>
<tr>
<td>3. Green sand</td>
<td>C. Higher permeability</td>
</tr>
<tr>
<td>4. Coarser sand grains</td>
<td>D. Ability of the sand to be easily stripped off the casting</td>
</tr>
</tbody>
</table>

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

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