

Unit 8 - Week 7

Course outline

How does an NPTEL online course work?

week 1

week 2

Week 3

Week 4

Week 5

Week 6

Week 7

● Role of Mould Oscillation

○ Role of Chemistry : Part I

○ Role of Chemistry : Part II

○ Role of Segregation : Part I

○ Role of Segregation : Part II

○ Quiz : Assignment 7

○ Week 7 Feedback :Steel Quality: Role of Secondary Refining and Continuous Casting

week 8

Week 9

Week 10

Week 11

Week 12

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Assignment 7

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-18, 23:59 IST.

Either One or Two Solutions are Correct for Each Question .
When One Solution is Correct , choice of only the Correct One will give ONE mark. Choice of more than One will result in ZERO mark .
When Two Solutions are Correct , choice of only the TWO CORRECT will give ONE mark . Choice of more than Two will result in ZERO mark . One Correct Solution will give 0.5 mark

1) The important parameter of mould oscillation for continuous casting is :

1 point

- Stroke
 Velocity
 Frequency
 Neither of this

No, the answer is incorrect.
Score: 0

Accepted Answers:
Stroke
Frequency

2) The period of the oscillation cycle when the downward mould velocity is more than the casting velocity is known as :

1 point

- Positive strip time
 Negative strip time
 Neither of this

No, the answer is incorrect.
Score: 0

Accepted Answers:
Negative strip time

3) Marks are generated during the following period of the oscillation cycle :

1 point

- Positive strip time
 Negative strip time
 Neither of this

No, the answer is incorrect.
Score: 0

Accepted Answers:
Negative strip time

The peritectic reaction $\delta + L = \gamma$ in the Fe - C equilibrium system ranges from 0.10 % C to 0.50 % C , and the peritectic point is

Identify the correct sequence of solidification for each of the four steels having

4) Identify the correct sequence of solidification for 0.05 % C steels having

1 point

- $L \rightarrow L + \gamma \rightarrow \gamma$
 $L \rightarrow L + \delta \rightarrow \delta + \gamma$
 $L \rightarrow L + \delta \rightarrow \delta$
 $L \rightarrow L + \delta \rightarrow L + \gamma \rightarrow \gamma$

No, the answer is incorrect.
Score: 0

Accepted Answers:
 $L \rightarrow L + \delta \rightarrow \delta$

5) Identify the correct sequence of solidification for 0.14 % C steels having

1 point

- $L \rightarrow L + \gamma \rightarrow \gamma$
 $L \rightarrow L + \delta \rightarrow \delta + \gamma$
 $L \rightarrow L + \delta \rightarrow \delta$
 $L \rightarrow L + \delta \rightarrow L + \gamma \rightarrow \gamma$

No, the answer is incorrect.
Score: 0

Accepted Answers:
 $L \rightarrow L + \delta \rightarrow \delta + \gamma$

6) Identify the correct sequence of solidification for 0.20 % C steels having

1 point

- $L \rightarrow L + \gamma \rightarrow \gamma$
 $L \rightarrow L + \delta \rightarrow \delta + \gamma$
 $L \rightarrow L + \delta \rightarrow \delta$
 $L \rightarrow L + \delta \rightarrow L + \gamma \rightarrow \gamma$

No, the answer is incorrect.
Score: 0

Accepted Answers:
 $L \rightarrow L + \delta \rightarrow L + \gamma \rightarrow \gamma$

7) Identify the correct sequence of solidification for 0.60 % C steels having

1 point

- $L \rightarrow L + \gamma \rightarrow \gamma$
 $L \rightarrow L + \delta \rightarrow \delta + \gamma$
 $L \rightarrow L + \delta \rightarrow \delta$
 $L \rightarrow L + \delta \rightarrow L + \gamma \rightarrow \gamma$

No, the answer is incorrect.
Score: 0

Accepted Answers:
 $L \rightarrow L + \gamma \rightarrow \gamma$

8) Depth of mushy zone (solid + liquid) during solidification depends on :

1 point

- Solidus T_S
 Liquidus T_L
 Superheat
 $T_L - T_S$

No, the answer is incorrect.
Score: 0

Accepted Answers:
 $T_L - T_S$

9) For similar superheat and liquidus , steel with lower solidus will result in :

1 point

- Thin shell
 Wide mushy zone
 Thick shell
 No effect

No, the answer is incorrect.
Score: 0

Accepted Answers:
Thin shell
Wide mushy zone

10) Segregation of all solute elements during solidification will result in :

1 point

- Enrichment in liquid
 Enrichment in solid
 No enrichment

No, the answer is incorrect.
Score: 0

Accepted Answers:
Enrichment in liquid