

# Unit 12 - Week 11

## Course outline

How does an NPTEL online course work?

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Week 11

● Remedial Measures to Control Defects : Part I

○ Remedial Measures to Control Defects : Part II

○ Remedial Measures to Control Defects : Part III

○ Grade - Specific Casting Parameters : Part I

○ Grade - Specific Casting Parameters : Part II

○ Quiz : Assignment 11

○ Week 11 Feedback :Steel Quality: Role of Secondary Refining and Continuous Casting

Week 12

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## Assignment 11

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

**Due on 2020-04-15, 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) Incidence of **central defect** in cast steel can be brought down with :

1 point

- Low P and S
- Suitable mould powder
- Soft reduction

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Low P and S  
Soft reduction

2) Problem of **hot shortness** in steel can be avoided by the following :

1 point

- Low S
- Low P
- Low O
- Mn / S > 25

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Low S  
Mn / S > 25

3) **Deep oscillation marks** in cast bloom / slab can be avoided by the following :

1 point

- Low frequency
- High frequency
- Short stroke
- Long stroke

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
High frequency  
Short stroke

4) **Transverse surface crack** on cast slab of micro-alloyed steel can be controlled by

1 point

- Low P
- Low S
- Low N
- Suitable casting powder

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Low N  
Suitable casting powder

5) Steels prone to **sticking and bulging** should use :

1 point

- Mould slag with better lubrication
- Mould slag with lower heat transfer
- Higher secondary cooling
- Lower secondary cooling

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Mould slag with better lubrication  
Higher secondary cooling

6) Steels prone to **surface crack and depression** should use :

1 point

- Mould slag with better lubrication
- Mould slag with lower heat transfer
- Higher mould taper
- Lower mould taper

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Mould slag with lower heat transfer  
Higher mould taper

7) **Equiaxed zone** in cast billet / bloom can be increased by using :

1 point

- Low superheat
- High Superheat
- EMS
- None of this

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Low superheat  
EMS

8) **Intensity of internal cracks** in cast billet / bloom / slab can be controlled by :

1 point

- Mould cooling
- Secondary cooling
- Casting speed
- None of this

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Secondary cooling  
Casting speed

9) **Intensity of reheating cracks** in cast billet / bloom / slab is influenced by :

1 point

- Mould cooling
- Secondary cooling
- Casting speed
- Steel chemistry

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Secondary cooling  
Steel chemistry

10) **Intensity of surface depression** in cast bloom / slab can be controlled by :

1 point

- Mould cooling
- Secondary cooling
- Casting speed
- Steel chemistry

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Mould cooling  
Steel chemistry