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reviewer4@nptel.iitm.ac.in ▼

Courses » Joining Technologies for metals

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Unit 8 - Week 7

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Course outline

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Lec 31 - Solidification of weld metal

Lec 32 - Fundamentals of weldability of metals

Lec 33 - Weldability of carbon and alloys steels: Fe-C, CCT

Lec 34 - Weldability of stainless steels

Lec 35 -

Assignment 7

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2019-04-17, 23:59 IST.**

1) Solidification mechanism of weld metal (when base metal and filler material are dissimilar) **1 point** involves

- Growth only
- Recrystallization and growth
- Nucleation
- Nucleation and growth

No, the answer is incorrect.

Score: 0

Accepted Answers:

Nucleation and growth

2) During solidification of weld metal, grain structure obtained when equilibrium temperature gradient is below the actual temperature gradient **1 point**

- Planar
- Cellular
- Dendritic
- Equiaxed

No, the answer is incorrect.

Score: 0

Accepted Answers:

Planar

3) Weldability is influenced by **1 point**

- Process
- Purpose

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Week 8

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4) Cleanliness of a weld joint indicates

1 point

- Weld joint free from impurities, inclusions, slag etc.
- Dust free weld joint surface
- Homogeneous structure of weld joint
- Easily cleanable weld joint

No, the answer is incorrect.

Score: 0

Accepted Answers:

Weld joint free from impurities, inclusions, slag etc.

5) Higher hardenability of the steel lead to

1 point

- Higher toughness of weld joint
- Higher ductility of weld joint
- Lower weldability
- Lower cracking tendency

No, the answer is incorrect.

Score: 0

Accepted Answers:

Lower weldability

6) High cooling rate during welding of a high C steel weld joint results in

1 point

- Low hardness
- High hardness
- High ductility
- High toughness

No, the answer is incorrect.

Score: 0

Accepted Answers:

High hardness

7) Stainless steel used for making sharp edge components (like knife, surgical items etc.) is

1 point

- Ferritic stainless steel
- Austenitic stainless steel
- Martensitic stainless steel
- Duplex stainless steel

No, the answer is incorrect.

Score: 0

Accepted Answers:

Martensitic stainless steel

8) Generally, chromium carbide is formed in the weld joint of austenitic stainless steel at

1 point

- High cooling rate in weld zone
- Low cooling rate in weld zone
- High cooling rate in HAZ
- Low cooling rate in HAZ

No, the answer is incorrect.

Score: 0

Accepted Answers:*Low cooling rate in HAZ*

9) Decrease in tensile strength of carbon steel having carbon percentage higher than eutectoid composition is attributed to the formation of **1 point**

- Cementite
- Ferrite
- Pearlite
- Austenite

No, the answer is incorrect.

Score: 0

Accepted Answers:*Cementite*

10) During welding of medium carbon steel in annealed condition, formation of martensite takes place at **1 point**

- Far from the fusion zone boundary
- Next to the fusion zone boundary
- Base metal
- All of above

No, the answer is incorrect.

Score: 0

Accepted Answers:*Next to the fusion zone boundary*

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