

Unit 8 - Week 7

Course outline

How does an NPTEL online course work?

Week 1

Week 2

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Week 5

Week 6

Week 7

☐ Additive Manufacturing Application for Prototype, Tooling & Part Repair

☐ AM Materials and Metallurgy in LPBF

☐ Additive Parameter Development

☐ Quality in Additive Manufacturing

☒ Quiz : Assignment 7

☐ Week 7 Feedback Form : The Future of Manufacturing Business: Role of Additive Manufacturing

Week 8

Video Download

Lecture Materials

Text Transcripts

Assignment 7

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

Due on 2020-11-04, 23:59 IST.

All the questions are multiple choice questions (MCQ) with only one correct answer.

1) Which of the following parameter influences the selection of metal powder for the AM process? 1 point

- ☐ Powder chemistry
- ☐ PSD
- ☐ Morphology
- ☐ All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

2) Which of the following advantage can be availed while using AM for prototyping? 1 point

- ☐ Avoiding welding & Brazing
- ☐ Topology Optimization
- ☐ Light weighting
- ☐ Performance enhancement

No, the answer is incorrect.
Score: 0
Accepted Answers:
Avoiding welding & Brazing

3) The size and shape of particle formed is depend on the 1 point

- ☐ Temperature of molten metal
- ☐ Nozzle size
- ☐ Jet characteristics
- ☐ All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

4) Which of the following is considered as interstitial impurity element present in chemical compositions of various alloys? 1 point

- ☐ Oxygen
- ☐ Nitrogen
- ☐ Hydrogen
- ☐ All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

5) Solid solution strengthening elements causes localized stress generation. 1 point

- ☐ True
- ☐ False

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

6) When thermal stress of the substrate exceeds the strength of the substrate material, the substrate will begin to warp. 1 point

- ☐ True
- ☐ False

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

7) Which of the following is termed as special processes? 1 point

- ☐ Welding
- ☐ Coating
- ☐ Additive manufacturing
- ☐ All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

8) The typical particle size range suitable for LPBF is 1 point

- ☐ 15 - 63 microns
- ☐ 10 - 20 microns
- ☐ 100 - 150 microns
- ☐ 60 – 90 microns

No, the answer is incorrect.
Score: 0
Accepted Answers:
15 - 63 microns

9) Rapid tooling refers to use of AM processes to produce molds. 1 point

- ☐ True
- ☐ False

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

10) Which of the following AM technology is not used for repair and restoration in different applications? 1 point

- ☐ DED
- ☐ PBF
- ☐ STL
- ☐ FDM

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