

Unit 14 - Week 12 - Metal Forming Processes

Course outline

How does an NPTEL online course work?

Week 0

Week 1 - Basics of Manufacturing Processes

Week 2 - Introduction to casting process

Week 3 - Gating Systems and Rate of solidification

Week 4 - Estimation of solidification time with different conditions and Riser design

Week 5 - Machining Processes

Week 6 - Cutting tool life estimation

Week 7 - Introduction to Micro-Systems Fabrication Technology

Week 8 - Abrasive water jet machining and Ultrasonic Machining

Week 9 - Introduction to Electrochemical Machining

Week 10 - Electro-discharge Machining Process

Week 11 - Laser Beam and Electron Beam Machining Processes

Week 12 - Metal Forming Processes

- Metal forming Processes
- Yield Criterion used in Metal Forming Processes
- Concept of Principal stress and strain
- Tresca's Yield criteria & Rolling Process
- Rolling Processes (Part-1)
- Rolling Processes (Part-2)
- Additive Manufacturing Processes
- Fused Deposition Modeling Process

Quiz : Assignment 12

- Assignment 12 solution
- Manufacturing Process Technology I and II: Feedback For Week 12

Text Transcripts

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Assignment 12

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

Due on 2020-04-22, 23:59 IST.

Assignment 12

1) Metal forming is a result of _____ of the workpiece.

1 point

- Plastic deformation
- Elastic deformation
- Fracture
- Heat treatment

No, the answer is incorrect.
Score: 0

Accepted Answers:
Plastic deformation

2) Elastic deformations of a solid are observed:

1 point

- Before fracture point
- Before yield point
- Before necking point
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Before yield point

3) Which of the following metal forming processes is best suitable for making the wires?

1 point

- Forging
- Extrusion
- Drawing
- Rolling

No, the answer is incorrect.
Score: 0

Accepted Answers:
Drawing

4) Which of the following processes is not the type of metal forming process?

1 point

- Extrusion
- Injection moulding
- Forging
- Drawing

No, the answer is incorrect.
Score: 0

Accepted Answers:
Injection moulding

5) Which of the following is the best suited explanation for Tresca's yield criteria?

1 point

- Plastic flow will take place when the maximum shear stress exceeds the critical value.
- Plastic flow will take place when minimum tensile stress is reached.
- Plastic flow will take place when minimum shear stress is reached.
- Plastic flow will take place when maximum tensile stress exceed the critical value.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Plastic flow will take place when the maximum shear stress exceeds the critical value.

6) In a two high rolling process, what is the direction of rolling of the two rollers?

1 point

- Clockwise-clockwise
- Anticlockwise-Anticlockwise
- Stationery-clockwise
- Anticlockwise-clockwise

No, the answer is incorrect.
Score: 0

Accepted Answers:
Anticlockwise-clockwise

7) Which among the following is not a type of extrusion process?

1 point

- Direct extrusion process
- Indirect extrusion process
- Stepping extrusion process
- All of the above are correct.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Stepping extrusion process

8) Which of the following is true for fused deposition modelling?

1 point

- It's a surface finishing process.
- It's an additive manufacturing process.
- It's a bulk machining process.
- All of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
It's an additive manufacturing process.

9) Stereolithography uses _____ for curing monomer.

1 point

- Heated platform
- Hot stream of water
- UV laser
- Any of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
UV laser

10) Selective Laser sintering utilizes _____ for fabrication process.

1 point

- Small material rods
- Continuous layer of powder
- Material sheets
- None of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Continuous layer of powder