

Course outline

How does an NPTEL online course work?

Week-01

Week-02

Week-03

Week-04

Week-05

Week-06

Week-07

Week-08

- Synthesis Routes of Nanomaterials (II)

- Mechanical Properties of Nanomaterials (I)

- Mechanical Properties of Nanomaterials (II)

- Feedback for Week 8

- Quiz: Week-08: Assignment-08

- Week-08: Assignment-08 Solution

Week-09

Week-10

Week-11

Week- 12

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Week-08: Assignment-08

The due date for submitting this assignment has passed.

Due on 2021-09-22, 23:59 IST.

As per our records you have not submitted this assignment.

1) During mechanical/ball milling, nanocrystalline materials form at

1 point

- Room Temperature
- Elevated Temperature
- Cryogenic Temperature
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

2) During sintering, the coalescence of the powder particles occurs due to

1 point

- Pressure
- Temperature
- Pressure and Temperature
- Composition

No, the answer is incorrect.
Score: 0

Accepted Answers:
Pressure and Temperature

3) Top-Down approach to synthesize nanomaterials is _____ approach.

1 point

- Destructive
- Non-destructive
- Energy Intensive
- Energy Intensive

No, the answer is incorrect.
Score: 0

Accepted Answers:
Destructive

4) The stress strain relationship for a perfectly elastic material is (K – constant)

1 point

- Stress = K*strain
- Stress > K*strain
- Stress < K*strain
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Stress = K*strain

5) The point of change of slope at the upper end of the linear region of the stress-strain curve is

1 point

- Fracture Point
- Ultimate Tensile Strength
- Yield Point
- Proof Stress

No, the answer is incorrect.
Score: 0

Accepted Answers:
Yield Point

6) Brinell Hardness Test involves the use of _____ indenter.

1 point

- Conical
- Pyramidal
- Diamond
- Spherical

No, the answer is incorrect.
Score: 0

Accepted Answers:
Spherical

7) The relationship between the stress and strain for the plastic region of the stress-strain curve is given by:

1 point

- Stress = K*strain
- Stress = K*strain^n
- Stress = K/strain
- Stress = K(1+strain)^n

No, the answer is incorrect.
Score: 0

Accepted Answers:
Stress = K*strain^n

8) The relationship between dislocation line (L) and Burger vector (b) for screw dislocation is

1 point

- b is parallel to L
- b is perpendicular to L
- Both
- None

No, the answer is incorrect.
Score: 0

Accepted Answers:
b is parallel to L

9) The material which involves the strain begin dependent on time and temperature is known as

1 point

- Elastic
- Plastic
- Viscoelastic
- Brittle

No, the answer is incorrect.
Score: 0

Accepted Answers:
Viscoelastic

10) According to Hall-Petch effect, the strength of a material is dependent on the grain size as

1 point

- Strength increases with increasing grain size
- Strength increases with decreasing grain size
- Strength is independent of the grain size
- Strength become equal to grain size.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Strength increases with decreasing grain size