

Unit 5 - Week 4

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

● Synthesis, Processing and Characterization of Nano-structured Coatings

○ Functional Coatings

● Advanced Coating Practices

○ Characterization of Nano-coatings

● Applications of Nano-coatings

○ Quiz : Assignment 4

○ Solution for Assignment 4

Week 5

Week 6

Week 7

Week 8

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Assignment 4

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

Due on 2020-02-26, 23:59 IST.

All are compulsory

1) What is the unit of specific surface area?

1 point

- m/g
 m³/g
 m²/g
 None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
m²/g

2) Which of the following is the main reason for the agglomeration of nanoparticles?

1 point

- High surface energy
 Low surface energy
 High aspect ratio
 Low aspect ratio

No, the answer is incorrect.
Score: 0

Accepted Answers:
High surface energy

3) An example of a functional coating is:

1 point

- Antifouling coating
 Antibacterial coating
 Self-cleaning coating
 All of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of these

4) Which of the following properties of Titanium dioxide makes it suitable as photo-catalyst in various environmental applications?

1 point

- Mechanically unstable
 Not photosensitive in the ultraviolet region
 High photo-activity
 Both (a) and (b)

No, the answer is incorrect.
Score: 0

Accepted Answers:
High photo-activity

5) Which of the following materials can be deposited using cold spray techniques?

1 point

- Metals
 Polymers
 Ceramics
 All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

6) Which of the following gasses is used in high velocity oxy-fuel process?

1 point

- Hydrogen
 Nitrogen
 Helium
 Argon

No, the answer is incorrect.
Score: 0

Accepted Answers:
Hydrogen

7) The wear can be due to a combined action of rolling and sliding when:

1 point

- V1 = V2
 V1 ≠ V2
 V1 = 0
 V2 = 0

No, the answer is incorrect.
Score: 0

Accepted Answers:
V1 ≠ V2

8) In pin-on-disc method, the wear path is:

1 point

- Linear
 Elliptical
 Circular
 Irregular

No, the answer is incorrect.
Score: 0

Accepted Answers:
Circular

9) Which type of binder can be used for inorganic zinc rich coating?

1 point

- Epoxy-based
 Silicate-based
 Urethane-based
 Butyl-based

No, the answer is incorrect.
Score: 0

Accepted Answers:
Silicate-based

10) Choose the incorrect sentence related to the thermal spray techniques.

1 point

- It provides hard coatings
 HVOF is a thermal spray technique
 HVOF is a thermal spray technique
 CVD is a thermal spray technique

No, the answer is incorrect.
Score: 0

Accepted Answers:
CVD is a thermal spray technique