

Unit 3 - Week 2

Course outline

How does an NPTEL online course work?

Week 1

Week 2

- Conventional Surface Engineering
- Types of Surface Modifications
- Physical Modifications
- Chemical Modifications
- Applications of Surface Engineering towards Nanomaterials

Quiz : Assignment 2

- Solution for Assignment 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

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Assignment 2

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

Due on 2020-02-12, 23:59 IST.

All are compulsory

1) Which of the following chemical cleaning process needs high-frequency vibrations? 1 point

- Solvent cleaning
- Emulsion cleaning
- Alkaline cleaning
- Ultrasonic cleaning

No, the answer is incorrect.
Score: 0

Accepted Answers:
Ultrasonic cleaning

2) Which of the mechanical cleaning process works based on plasticity mechanism? 1 point

- Mass finishing
- Sand blasting
- Shot peening
- Hydro blasting

No, the answer is incorrect.
Score: 0

Accepted Answers:
Shot peening

3) The process of depositing a layer of any desired metal on another material using electric current is called: 1 point

- Electroplating
- Galvanizing
- Buffing
- Polishing

No, the answer is incorrect.
Score: 0

Accepted Answers:
Electroplating

4) Choose an incorrect statement: 1 point

- Plasma treatment helps to establish hydrophobic & hydrophilic properties
- Corona is a two-dimensional treatment
- Parylene is a conformal surface coating
- Photolysis systems use low voltage to excite the gas in an emitter

No, the answer is incorrect.
Score: 0

Accepted Answers:
Photolysis systems use low voltage to excite the gas in an emitter

5) Physical surface modification of nanomaterials is 1 point

- Change in surface metallurgy of the material
- Change in surface chemistry of the material
- Change in bulk properties of the material
- None of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
Change in surface metallurgy of the material

6) In which process, an iron-base alloy is heated in contact with a cyanide salt so that the surface absorbs carbon and nitrogen. 1 point

- Induction hardening
- Nitriding
- Cyaniding
- Carburizing

No, the answer is incorrect.
Score: 0

Accepted Answers:
Cyaniding

7) Choose an appropriate condition for Electrical discharge machining (EDM): 1 point

- The electric field between tool and workpiece is greater than the strength of the dielectric
- Electric field between tool and workpiece is smaller than the strength of the dielectric
- There is no electric field between the two electrodes
- The two electrodes are in physical contact

No, the answer is incorrect.
Score: 0

Accepted Answers:
The electric field between tool and workpiece is greater than the strength of the dielectric

8) In Electro-etching process, the plate to be etched is attached to: 1 point

- Anode terminal of the power supply
- Cathode terminal of the power supply
- Any of the terminal of the power supply
- An another plate which is connect to anode terminal of the power supply

No, the answer is incorrect.
Score: 0

Accepted Answers:
Anode terminal of the power supply

9) Which of the following process is pack cementation process? 1 point

- Aluminizing
- Chromizing
- Siliconizing
- All of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of these

10) What is electrochemical cell? 1 point

- A device capable to convert mechanical energy to electrical energy or vice versa
- A device capable to convert potential energy to electrical energy or vice versa
- A device capable to convert kinetic energy to electrical energy or vice versa
- A device capable to convert chemical energy to electrical energy or vice versa

No, the answer is incorrect.
Score: 0

Accepted Answers:
A device capable to convert chemical energy to electrical energy or vice versa