

Unit 3 - Week 2

Course outline

How to access the portal?

Week 1

Week 2

● Measuring Electrical Conductivity: DC and AC

● Free Electron Gas

● The Ideal Gas

○ Quiz : Assignment 2

○ Physics of Materials : Week 2 Feedback form

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Text Transcripts

Assignment 2

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

Due on 2019-08-21, 23:59 IST.

1) In Lithium ion batteries, the charge carriers are electrons as well as ions

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

1 point

2) Resistivity is an extensive property

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point

3) For a resistor, Resistance and Impedance are the same

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

1 point

4) A capacitor displays very low impedance in response to low frequency AC signals

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point

5) In simple cubic structure, larger atoms result in a smaller fraction of vacant space

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point

6) A gas at 1 atmosphere pressure and room temperature, has three order of magnitude higher number of atoms per cubic meter in comparison to a solid at 500°C

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point

7) In an ideal gas exchange of energy between the atoms is due to the coulombic repulsion between like atoms.

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point

8) The average translational kinetic energy of an atom of an ideal gas is dependent on the temperature of the gas

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

1 point

9) Inert gases display strong interaction between the atoms at 2 atmospheres of pressure

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point

10) An FCC structure has a greater fraction of internal space that is vacant relative to a BCC structure due to its closer packing

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

1 point