ourses » Introducti	on to Materials Science and Engineering	Ş
Jnit 8 - We Defects in (	Announcements <b>Course</b> Ask a Question Progress ek 5 - Crystalline Solids I	FAQ
Register for Certification exam	Assignment 5	2
Course outline	The due date for submitting this assignment has passed.As per our records you have not submitted thisDue on 2019-03-06, 23assignment.	:59 IST.
How to access the portal	1) The Burgers vector is a constant for which of the following types of dislocations?	1 poi
Supplementary Materials	<ul> <li>Edge dislocations alone</li> <li>Mixed dislocations alone</li> </ul>	
Week 1 - Crystallography I	<ul> <li>Screw dislocation alone</li> <li>All the above</li> </ul>	
Week 2 - Crystallography II + Structure of Solids I	No, the answer is incorrect. Score: 0 Accepted Answers: All the above 2) Find the magnitude of the Burgers vector (in <sup>8</sup> ) of a dislocation in a CCD emotel with a =	1 noi
Week 3 - Structure of Solids II	3.24 Å.	1 рол
Week 4 - Structure of Solids III	<ul> <li>2.29</li> <li>1.41</li> <li>1.73</li> </ul>	
Week 5 - Defects in Crystalline Solids I	No, the answer is incorrect. Score: 0	
Week 5 Overview	Accepted Answers: 2.29	
Week 5 Reading List	3) The top view of a slip plane of a crystal is shown. The dislocation lies PQ in this slip plan The end points P and Q are on opposite faces of the crystal. What is its nature if its Burgers	e. <i>1 poil</i> vector is
5.1 Defects in Crystals	as snown in the figure?	

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The dislocation is an edge dislocation			
The dislocation is a screw dislocation			
The dislocation is a mixed dislocation			
Information is insufficient to make a conclusion			
No, the answer is incorrect. Score: 0			
Accepted Answers: Information is insufficient to make a conclusion			
8) The enthalpy of formation of vacancies in pure crystalline copper is 20 kcal/mol. If the temperature is increased from 27°C to 40°C, the equilibrium vacancy concentration becomes the initial value. Take R=2 cal K <sup>-1</sup> mol <sup>-1</sup>	1 point		
O two times	R		
three times			
o four times			
one-fourth			
No, the answer is incorrect. Score: 0			
Accepted Answers: four times			
9) Identify the correct statement.	1 point		
The t vector of a curved dislocation line is a constant.			
The b vector of a dislocation loop has different directions at different points along the loop.			
At a temperature above 0 K, perfect crystals are in stable equilibrium.			
Parallel planes perpendicular to a screw dislocation line join to form a helicoidal surfative the dislocation line as its axis.	ace with		
No, the answer is incorrect. Score: 0			
Accepted Answers: Parallel planes perpendicular to a screw dislocation line join to form a helicoidal surface with line as its axis.	n the dislocat		
10The figure below shows a model containing a dislocation line.	1 point		
D			
S B			



2
R
ß
R
R