

Final Exam - Weld Defects Answer Sheet

Name: _____

Use what you have learned from the Weld Defect models and flashcards to complete this assessment.

Define each welding defect and also giving one cause that is associated with that defect based on improper machine settings or improper technique. (Reminder: Only one cause of either Machine or Technique is needed)

Defect Name	Definition	One Cause of Defect (Machine or Technique)
1. Quality Weld	Consistent weld path and quality fusion of metal through proper welding technique and machine settings.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
2. Undercut	An indentation or channel melted into the base metal adjacent to the toe or root of a weld and left unfilled by weld metal.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
3. Overlap	The protrusion or overhand of weld metal beyond the bond at the toe or root of a weld without fusing to the base metal.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
4. Arc Strike	Accidental striking of an arc outside the welding area (zone).	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
5. Concavity	When the distance from the weld face perpendicular to a line joining the weld toes curves inward toward the weld joint.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
6. Slag Inclusion	When foreign material is trapped in the weld metal or between the weld and the base metal.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide



7. Spatter	The metal particles expelled during arc and gas welding that do not form part of the weld.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
8. Inconsistency	The weld bead is not constant and varies throughout the weld, leading to different filler metal thicknesses, penetration depths and fusion issues.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
9. Excessive Reinforcement	When the weld metal has too much build-up above the base metal.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
10. Porosity	The presence of inclusions or gas pockets in a weld.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
11. Lack of Fusion	The failure of a welding process to fuse or join together layers of weld metal, or weld metal and base metal.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
12. Insufficient Reinforcement	When the weld metal lacks sufficient build-up above the base metal.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide
13. Convexity	The maximum distance from the weld face perpendicular to a line joining the weld toes. The weld has a rounded profile.	<i>Answers may vary.</i> Consult the Weld Defects Kit Instructor Guide