

# BODY OF KNOWLEDGE

## AWS Certified Welding Inspector

The following is an **approximate** breakdown of the examination categories and the number of questions drawn from each subject area.

<b>PART A: FUNDAMENTALS</b>	
<i>Subject</i>	<i>Percentage</i>
Welding Processes	10%
Heat Control & Metallurgy (carbon and low-alloy steel)	6%
Weld Examination	9%
Welding Performance	9%
Definitions and Terminology	12%
Symbols – Welding and NDE	10%
Test Methods – NDE	8%
Reports and Records	6%
Duties and Responsibilities	4%
Safety	5%
Destructive Tests	4%
Cutting	3%
Brazing	2%
Soldering	1%

<b>PART B: PRACTICAL</b>	
<i>Subject</i>	<i>Percentage</i>
Procedure and Welder Qualifications	30%
Mechanical Test and Properties	10%
Welding Inspection and Flaws	36%
NDE	10%
Utilization of Specification and Drawings	10%

<b>PART C: CODE APPLICATIONS</b>	
<i>Subject</i>	<i>Percentage</i>
Materials and Design	10%
Fabrication	30%
Inspection	25%
Qualification	30%

### **AWS – RECOMMENDED SELF-STUDY** **Examination Preparatory Material**

**Note:** D1.1:2006 or 2008 editions may be used as study material.

<b>AWS PUBLICATIONS</b>	<b>ORDER NUMBER</b>
<i>Certification Manual for Welding Inspectors</i>	CM: 2000
<i>Welding Inspection Handbook</i>	WI: 2000
* <i>D1.1/D1.1M Structural Welding Code-Steel</i>	D1.1/D1.1M: 2008
* <i>D1.1 Code Clinic Reference Manual</i>	D1.1CCRM: 2008
* <i>API 1104 Study Guide for API Standard 1104 Welding of Pipelines</i>	API-M: 2008
* <i>Welding Inspection Technology</i>	WIT-T-2008
* <i>Welding Inspection Technology (Workbook)</i>	WIT-W: 2008
* <i>Welding Inspection Technology Sample CWI Fundamentals Exam</i>	WIT-E: 2008
* <i>Standard Welding Terms and Definitions</i>	A3.0:2001
* <i>Standard Welding Symbols</i>	A2.4: 2007
* <i>Visual Inspection Workshop Reference Manual</i>	VIW-M: 2008
* <i>Guide for the Nondestructive Examination of Welds</i>	B1.10: 1999
* <i>Specification for the Qualification of Welding Inspectors (errata 2007)</i>	B5.1: 2003
❖ <b>Books are provided to participants at the AWS Seminars</b>	

<b>CODE SUBJECTS AVAILABLE</b>
AWS D1.1- Structural Steel Code: 2006 or 2008 edition
API1104- Pipelines 20 <sup>th</sup> edition with 2007 errata/addenda
AWS D1.2- Structural Aluminum Code: 2003 or 2008 edition
ASME Section IX (2007 edition), B31.1 (2007 edition), & B31.3 (2006 edition)
AWS D15.1 - Railroad: 2007 edition
ASME Sections VIII (Div 1) & IX, (both 2007 editions)
AWS D1.5- Bridge Welding Code: 2008 edition

<b>OTHER RECOMMENDATIONS</b>	<b>ORDER NUMBER</b>
AWS Welding Handbook Series	WHB-ALL
Guide for the Visual Examination of Welds	B1.11: 2000
Safety in Welding, Cutting and Allied Processes	ANSI Z49.1: 2005

### **TO PURCHASE ANY OF THE AWS PUBLICATIONS OR THE API1104 CODEBOOK:**

- ❑ Contact WEX at 888-WELDING or 305-824-1177
- ❑ Or visit the website at [www.awspubs.com](http://www.awspubs.com)