

## ARIZONA REGISTRAR OF CONTRACTORS

### A-11 STEEL AND ALUMINUM ERECTION (COMMERCIAL)

### R-17 STRUCTURAL STEEL AND ALUMINUM (RESIDENTIAL)

#### SCOPE OF WORK

**A-11 Steel and Aluminum Erection** - Field fabrication, erection, repair, and alteration of architectural and structural steel and aluminum materials common to the industry, including field layout, cutting, assembly and erection by welding, bolting, wire typing or riveting.

**R-17 Structural Steel and Aluminum** - Installation and repair of architectural and structural shapes and members common to the industry, including reinforcing steel which may be used as structural members for buildings, equipment, and structures.

The trade test is considered equivalent for these classifications and upon passing the CBME and trade exam, either license classification may be applied for without further testing.

# of Questions	Minimum Passing Score	Time Allowed
50	70%	120 Minutes

#### CONTENT OUTLINE

Subject Area	# of Items
Materials	12
Rigging	8
Steel Erection	12
Attachment	6
Welding and Cutting	8
Safety	4

#### REFERENCES

To find reference materials, you may use the link provided or search for the material online via a search engine such as Google. You may also go to PSI's online store at [www.pSIONlinestore.com](http://www.pSIONlinestore.com).

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

*The following reference material is allowed in the examination center:*

*Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <https://www.osha.gov/laws-regs/regulations/standardnumber/1926>

OR

*Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI*, with latest available amendments, 3210 E Tropicana, Las Vegas, NV 89121, (800) 733-9267, [www.pSIONlinestore.com](http://www.pSIONlinestore.com)

*The following reference material is not allowed in the examination center:*

*ASME B30.5 - Mobile and Locomotive Cranes*, 2007, American Society of Mechanical Engineers, [www.asme.org](http://www.asme.org)

*Handbook of Rigging*, 5th Edition, 2009, W.E. Rossnagel.

*Modern Welding*, 2004 or 2013, Althouse/Turnquist/Bowditch/Bowditch, [www.g-w.com](http://www.g-w.com)

*Principles and Practices of Commercial Construction*, 2008 or 2014, Cameron K. Andres and Ronald C. Smith.

*Handling and Erection of Steel Joists and Joist Girders*, 2006 or 2008, Steel Joist Institute, 234 W. Cheves Street Florence, SC 29501, (843) 407-4091, [www.steeljoist.org](http://www.steeljoist.org)

*SDI (Steel Deck Institute) Manual of Construction with Steel Deck*, 2006 or 2016, [www.sdi.org](http://www.sdi.org)

*Specification for Structural Joints Using ASTM A325 or A490 Bolts*, 2004, Research Council on Structural Connections, [www.boltcouncil.org](http://www.boltcouncil.org)

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, annotated and/or indexed prior to the examination session. However, references may not be written in during the examination session. Any candidate caught writing, highlighting, underlining and/or indexing in the references during the examination will be reported to the Arizona Registrar of Contractors. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. (permanent tabs are defined as tabs that would tear the page if removed). Temporary tabs, (defined as Post-It notes, or other tabs that may be removed without tearing the page) are not allowed and must be removed from the reference before the exam will begin. If you are downloading from the Internet, you may bring this reference into the testing center with you as long as it is bound. You can have it spiral bound or you may hole-punch it and put it in a binder.