

# ARIZONA REGISTRAR OF CONTRACTORS

## R-9/C-9 (CR-9) CONCRETE (RESIDENTIAL/COMMERCIAL)

### SCOPE OF WORK

Installation and repair of concrete, concrete products, and accessories common to the industry.

All work is in connection with the processing, proportioning, batching, mixing, conveying, and placing of concrete composed of materials common to the concrete industry, including finishing, coloring, curing, repairing, testing, drilling, sawing, grinding, chipping, and grouting. Placing film barriers, sealing, and waterproofing are included. Construction, centering, assembling forms, molds, insulating concrete forms, slipforms, and pans. Trenching, excavating, backfilling, and grading in connection with concrete construction.

Installation of embedded items essential to or comprising an integral part of the concrete or concrete construction, including reinforcing elements and accessories.

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
Estimating	5
Layout and Excavation	10
Formwork	6
Reinforcing Steel	7
General Concrete	16
Safety	6

### REFERENCE LIST

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 <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>*

**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) (See order form at the end of the Candidate Information Bulletin.)*

*International Building Code, 2009, 2012, 2015, or 2018, International Code Council, (800) 786-4452, [www.iccsafe.org](http://www.iccsafe.org)*

*International Residential Code for One- and Two-Family Dwellings, 2009, International Code Council, (800) 786-4452, [www.iccsafe.org](http://www.iccsafe.org)*

*ACI 318-08 Building Code Requirements for Structural Concrete and Commentary, 2009, 2012, 2015, or 2018, American Concrete Institute, (248) 848-3700, [www.concrete.org](http://www.concrete.org)*

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

*Design and Control of Concrete Mixtures, 2011, Steven H. Kosmatka, William C. Panarese, Portland Cement Association, 5420 Old Orchard Road, Skokie, IL 60077-1083, 847-966-6200, [www.cement.org](http://www.cement.org)*

*Pipe and Excavation Contracting, Dave Roberts, 1987, Craftsman Book Company, [www.constructionbook.com](http://www.constructionbook.com)*

*Formwork for Concrete, 2005, 7th Edition, M.K. Hurd American Concrete Institute, 38800 Country Club Drive, PO Box 9094, Farmington Hills, MI 48333, [www.concrete.org](http://www.concrete.org)*

*Placing Reinforcing Bars, Recommended Practices, 2011, 9th Edition, Concrete Reinforcing Steel Institute, [www.crsi.org](http://www.crsi.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.

