

# COMMONWEALTH OF VIRGINIA CONCRETE CONTRACTING EXAMINATION

**Scope of Work:** Concrete Contracting (Abbr: CEM) means that service which provides for all work in connection with the processing, proportioning, batching, mixing, conveying and placing of concrete composed of materials common to the concrete industry. This includes but is not limited to finishing, coloring, curing, repairing, testing, sawing, grinding, grouting, placing of film barriers, sealing and waterproofing. Construction and assembling of forms, molds, slipforms, pans, centering, and the use of rebar is also included. The CBC, RBC, and H/H classifications also provide for this function.

# of Questions	Minimum Passing Score	Time Allowed
50	70% (35 correct)	120 Minutes

## CONTENT OUTLINE

Subject Area	# of Items
Estimating	5
Layout and Excavation	10
Formwork	6
Reinforcing Steel	7
General Concrete	16
Safety	6

## EXAMINATION REFERENCE MATERIAL

The following is a list of possible reference materials for the examination. The list is given to identify resources and does not constitute an endorsement by PSI or by the Virginia Department of Professional and Occupational Regulation.

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. You can use any edition of references and Code books as they become available.

However, for Code questions, the examination will be based only on the edition of the Code book that is listed.

NOTE: All examinations are open-book. You must bring your own references as they are not provided at the test site. No study guides are permitted.

No loose papers or unbound references are permitted. If you download a reference from the Internet, it must be spiral bound or hole-punched and placed in a binder or stapled in the left-hand corner.

References may be highlighted, underlined, and/or indexed prior to the exam. Reference materials containing any writing will not be allowed into the examination. You may not write in reference materials during the examination session.

A candidate caught writing in the references during the examination will have the references confiscated and will be reported to the Department.

References may be tabbed with permanent tabs only. NO REMOVABLE TABS are allowed.

The following list of tabs may be used. These items may be purchased at local office supply stores.

### Acceptable Tabs

Avery Swift Tabs Self-Adhesive Permanent Plastic Tabs  
Redi-Tag Self-Stick Permanent Adhesive Index Tabs

### Unacceptable Tabs

Post-It Index Flags  
Post-It Flags

The URL listed for each reference is generated from the most current searches. However, placement of material on websites may be modified resulting in some discrepancies. If you are unable to find the reference under the URL listed, it is recommended that you search online via a search engine (e.g., Google).

- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, 866-512-1800,  
<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, 866-589-3088,  
<https://www.psionlinestore.com/29-cfr-part-1926-selections-2013/>
  
- *International Building Code, 2015 or 2018*, International Code Council, (800) 786-4452,  
<http://shop.iccsafe.org>
  
- **Starting September 1<sup>st</sup>, 2023:** *International Building Code, 2018*, International Code Council, (800) 786-4452, <http://shop.iccsafe.org>
  
- *ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary*, American Concrete Institute, (248) 848-3700,  
<https://www.concrete.org/store/productdetail.aspx?temID=31814>
  
- *Design and Control of Concrete Mixtures, 15<sup>th</sup> Ed, 2011*, Steven H. Kosmatka, William C. Panarese, Portland Cement Association,  
[https://www.amazon.com/Design-Control-Concrete-Mixtures-Wilson/dp/0893122726/186-2954833-3302338?ie=UTF8&\\*Version\\*=1&\\*entries\\*=0](https://www.amazon.com/Design-Control-Concrete-Mixtures-Wilson/dp/0893122726/186-2954833-3302338?ie=UTF8&*Version*=1&*entries*=0)



- *Pipe and Excavation Contracting*, Dave Roberts, 2011, Craftsman Book Company, (800) 829-8123, [https://www.amazon.com/Pipe-Excavation-Contracting-Revised-Roberts-ebook/dp/B005DNTFQE/ref=sr\\_1\\_1?keywords=pipe+and+excavation+contracting+2011&qid=1559162328&s=b&books&prefix=%EF%82%A7%09Pipe+and+Excavation+Contracting%2Cstripbooks%2C440&sr=1-1](https://www.amazon.com/Pipe-Excavation-Contracting-Revised-Roberts-ebook/dp/B005DNTFQE/ref=sr_1_1?keywords=pipe+and+excavation+contracting+2011&qid=1559162328&s=b&books&prefix=%EF%82%A7%09Pipe+and+Excavation+Contracting%2Cstripbooks%2C440&sr=1-1)
- *Formwork for Concrete*, 2005, 7th Edition, M.K. Hurd American Concrete Institute, <https://www.amazon.com/Formwork-Concrete-7th-M-Hurd/dp/0870311778>
- *Placing Reinforcing Bars, Recommended Practices*, 2011, 9<sup>th</sup> Edition, Concrete Reinforcing Steel Institute, <https://www.amazon.com/Placing-Reinforcing-Bars-9th-CRSI/dp/B005GR19C0>