OKEECHOBEE COUNTY - EXAM DESCRIPTIONS

Table of Contents

Okeechobee County - Exam Descriptions 1
AC Commercial1
Aluminum Construction 2
Aluminum Structures & Specialties 2
Asphalt Sealing & Coating 2
Building Contractor (English or Spanish)
Burglar & Fire Alarm Electrical 2011
Burglar Alarm Electrical 2011
Business and Law (English or Spanish) 4
Carpentry (English or Spanish) 4
Commercial Paving 4
Commercial Swimming Pool 4
Concrete Forming and Placing (English or Spanish) 5
Concrete Placing and Finishing 5
Demolition (English or Spanish)5
Drywall
Drywall
Drywall6Drywall & Lathing6Electrical Sign Contractor 20117Fencing (English or Spanish)7Garage Door Installer Contractor7General Contractor (English or Spanish)8Glass & Glazing8
Drywall6Drywall & Lathing6Electrical Sign Contractor 20117Fencing (English or Spanish)7Garage Door Installer Contractor7General Contractor (English or Spanish)8Glass & Glazing8Heating Contractor9
Drywall6Drywall & Lathing6Electrical Sign Contractor 20117Fencing (English or Spanish)7Garage Door Installer Contractor7General Contractor (English or Spanish)8Glass & Glazing8Heating Contractor9HVAC9
Drywall6Drywall & Lathing6Electrical Sign Contractor 20117Fencing (English or Spanish)7Garage Door Installer Contractor7General Contractor (English or Spanish)8Glass & Glazing8Heating Contractor9HVAC9Interlocking Pavers9
Drywall6Drywall & Lathing6Electrical Sign Contractor 20117Fencing (English or Spanish)7Garage Door Installer Contractor7General Contractor (English or Spanish)8Glass & Glazing8Heating Contractor9HVAC9Interlocking Pavers9Irrigation Sprinkler (English or Spanish)10
Drywall6Drywall & Lathing6Electrical Sign Contractor 20117Fencing (English or Spanish)7Garage Door Installer Contractor7General Contractor (English or Spanish)8Glass & Glazing8Heating Contractor9HVAC9Interlocking Pavers9Irrigation Sprinkler (English or Spanish)10Journeyman Electrician (English or Spanish) 201110

Master Mechanical11
Metal Awning & Storm Shutter Contractor (English or Spanish)
Painting and Decorating12
Plastering & Lathing (English or Spanish)12
Refrigeration & Air Conditioning Contractor13
Residential AC13
Residential Contractor14
Residential Swimming Pool (English or Spanish)14
Roofing (English or Spanish)14
Roofing Unlimited15
Swimming Pool Maintenance Contractor (Limited)
Swimming Pool Maintenance Unlimited15
Tile & Marble16
Tile, Terrazzo and Marble (English or Spanish) 16
Underground Utilities16

AC COMMERCIAL

Tests a candidate's knowledge of the installation, maintenance, repair, fabrication, alteration, and extension of commercial air conditioning, warm air heating, ventilation, duct systems, and related appurtenances unlimited in horsepower or tonnage.

Number of Questions Time allowed (hours)	100 4
Subject Area	# Quest.
Equipment	20
General Knowledge	27
Maintenance	30
Piping	11
Plan Reading	2
Systems & Sizing	10

- Advanced Mechanical Study Guide , 2nd edition, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Florida Building Code 2017 Energy Conservation, 2017. ISBN: 978-1-60983-695-5. International Code Council, 4051 West Flossmoor Road,

Country Club Hills, IL 60478. www.iccsafe.org

- Florida Building Code 2017 Fuel Gas, 2017. ISBN: 978-1-60983-691 7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Mechanical, 2017. ISBN: 978-1-60983-690-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Residential, 2017. ISBN: 978-1-60983-692-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- HVAC Basics for Contractors,3rd Edition, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

ALUMINUM CONSTRUCTION

Tests a candidate's knowledge of the fabrication, installation, repair, alteration, and extension of aluminum structures, including screen rooms with solid or screen roofs, metal siding, soffits, gutters, and awnings.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
Carports & Patio Covers	7
Miscellaneous Aluminum Structures	7
Plan Reading & Estimating	10
Safety	6
Screen Rooms	10
Screen Enclosures	10

References

- AAF Guide to Aluminum Construction in High Wind Areas, 2010. Aluminum Association of Florida, 13165 McCrory Place, Suite 185, Orlando, FL 33432. Available at http://www.aaof.org/. (Also permitted is the Guide to Aluminum Construction in High-Wind Area ASCE7 Supplement to the 2010 Guide)
- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

ALUMINUM STRUCTURES & SPECIALTIES

A contractor whose services consist of the installation, fabrication, maintenance (except for cleaning), repair or design with aluminum, vinyl and fiberglass screen material. The aluminum contractor may work on foundation, slabs on grade and block knee walls, wood decks (self-standing) and utility sheds (wood studs only) less than 501 square feet, necessary to and incidental to the aluminum construction work. The aluminum contractor shall not perform any work that alters the structural integrity of the building and shall not use wood products for rafters, trusses and wood beams.

Number of Questions50Time allowed (hours)2

Subject Area	# Quest.
Plan Reading & Estimating	8
Concrete & Masonry	7
Carpentry, Windows & Doors	7
Siding, Soffit & Fascia	5
Screen Enclosures	6
Screen Rooms, Carports & Patio Covers	6
Miscellaneous Aluminum Structures & Gutters	6
Safety	5

References

- AAF Guide to Aluminum Construction in High Wind Areas, 2010. Aluminum Association of Florida, 13165 McCrory Place, Suite 185, Orlando, FL 33432. Available at http://www.aaof.org/. (Also permitted is the Guide to Aluminum Construction in High-Wind Area ASCE7 Supplement to the 2010 Guide)
- ASTM D4756-06 Standard Practice for Installation of Rigid PVC Siding <u>& Soffit</u>, 2006. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Available at http://www.astm.org/. Candidate printed versions allowed if exam is open book.
- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Masonry and Sitework for the Residential Contractor, 2nd edition, 2nd. ISBN: 978-1-269-78556-3. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- <u>Residential Home Builder Study Guide</u>. ISBN: 9781323550915. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- <u>Study Guide for Residential Carpentry & Repair, 2nd edition</u>, 2014.
 ISBN: 978-1-269-78561-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

ASPHALT SEALING & COATING

An engineering contractor who has a qualifying agent with the experience and skill gained by not less than one (1) year as a general superintendent for an engineering contractor and/or the education equivalent thereto, or a combination thereof, and qualified and certified to seal driveways and parking lots only; if cracks, holes or any repair is needed, it must be done by a certified paving contractor.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
Asphalt Principles & Properties	4
Use & Application of Asphalt Emulsions	18
Asphalt Surface Treatments	18
Asphalt Preservation & Maintenance	5
Safety	5

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- ES-12 Asphalt Surface Treatments, 1988. The Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511-8480. Available at https://www.contractorcampus.com/.
- MS-16 Asphalt in Pavement, Preservation & Maintenance, 4th edition, 2009. ISBN: 978-1-934154-58-8. The Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511-8480. Available at www.asphaltinstitute.org.
- MS-19 Basic Asphalt Emulsion Manual, 4th edition. ISBN: 978-1-934154-56-4. The Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511-8480. Available at www.asphaltinstitute.org.

BUILDING CONTRACTOR (ENGLISH OR SPANISH)

Building Contractor means a contractor whose services are limited to construction of commercial and single-dwelling or multiple-dwelling residential buildings, which commercial or residential buildings do not exceed three stories in height, and accessory use structures in connection therewith or a contractor whose services are limited to remodeling, repair, or improvement of any size building if the services do not affect the structural members of the building. As regulated under Florida Statute, a person who has passed a competency examination as a Building Contractor may perform these or related tasks or may supervise persons in his employ in the execution of these tasks.

Number of Questions	70
Time allowed (hours)	3

Subject Area	# Quest.
Plan Reading & Estimating	10
Sitework	5
Concrete	11
Masonry	8
Structural Steel	4
Carpentry & Metal Framing	10
Roofing	4
Associated Trades	3
Interior Finishes	4
Exterior Finishes	4
Safety	7

References

- <u>2012 Study Guide for Structural Steel</u>, 2012. ISBN: 978-1-269-08432 1. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- ACI 530 Building Code Requirements and Specification for Masonry Structures 2013, 2013. ISBN: 978-1-929081-43-1. American Concrete Institute, 38800 International Way, Country Club Dr, P.O. Box 9094, Farmington Hills, MI 48333. Available at http://www.concrete.org OR http://www.techstreet.com/searches/16672726 OR amazon.com
- <u>Concrete Finishing Level Two</u>, 1999. ISBN: 978-0-13-014860-5. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

- <u>Masonry Level Three</u>, 2014. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336.
- <u>Study Guide for Commercial Carpentry, 2nd Edition</u>, 2014. ISBN: 978-1-269-78661-4. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

BURGLAR & FIRE ALARM ELECTRICAL 2011

Tests a candidate's knowledge of the design, plan, installation, repair, alteration, and maintenance of intrusion detection, fire detection, and signaling systems.

Number of Questions	50	
Time allowed (hours)	2	
Subject Area	# Quest.	
General Electrical Knowledge	5	
Fire & Intrusion Detection & Alarms	24	
Power Supplies	5	
Notification Appliances & Signaling Circuits	5	
Grounding & Bonding	4	
Raceways & Boxes	3	
Conductors & Cables	3	
Special Occupancies	1	

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- Low Voltage Wiring: Security/Fire-Alarm Systems, 2001. ISBN: 978-0071376747. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com.
- NFPA 70 National Electrical Code, 2011. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- <u>Understanding and Servicing Alarm Systems</u>, 3rd Ed., 1999. ISBN: 978-0750672061. Butterworth-Heinemann, 225 Wildwood Ave., Woburn, MA 01801. Available at www.amazon.com.

BURGLAR ALARM ELECTRICAL 2011

Tests a candidate's knowledge of the design, installation, maintenance and alteration of burglar alarm circuits and equipment.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
General Electrical Knowledge	5
Installation	10
Power Supplies	5
Intrusion Detection	17
Notification Appliances & Signaling Circuits	9
Supervisory Stations	4

References

American Electricians' Handbook, 15th Edition. ISBN: 978-0-07-

149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com

- Low Voltage Wiring: Security/Fire-Alarm Systems, 2001. ISBN: 978-0071376747. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com.
- NFPA 70 National Electrical Code, 2011. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- <u>Understanding and Servicing Alarm Systems</u>, 3rd Ed., 1999. ISBN: 978-0750672061. Butterworth-Heinemann, 225 Wildwood Ave., Woburn, MA 01801. Available at www.amazon.com.

BUSINESS AND LAW (ENGLISH OR SPANISH)

Tests a candidate's knowledge of payroll taxes, workers? compensation, unemployment compensation, lien laws and other laws or subjects that will affect their daily operations as contractors.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
-	# Quesi.
Business Organization	2
Licensing	3
Lien laws	2
Tax Laws	5
Safety OSHA	3
Labor Laws	8
Contract Management	9
Project Management	6
Estimating & Bidding	4
Financial Management	5
Risk Management	3

References

FLORIDA - NASCLA Contractors Guide to Business, Law and Project

Management, 1st. ISBN: 1-934234-92-3 OR 978-1-934234-92-1. NASCLA, 23309 N. 17th Drive, Building 1, Unit 110, Phoenix, AZ 85027. Available at www.nascla.org or www.provbookstore.com. Please note, the Florida Business and Law Study Guide for Contractors (published by Prov) is permitted as a substitute.

CARPENTRY (ENGLISH OR SPANISH)

Tests a candidate's knowledge of light and heavy carpentry, rough framing, trusses, sheathing, metal framing, paneling, trim, cabinetry, doors, windows, stairs, and incidental hardware

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
Cold-Formed Steel Framing	5
Exterior Finishing	4
Floor Systems	4
Interior Trim	2
Plan Reading & Estimating	6
Safety	5

Roof Framing	8
Thermal & Moisture Protection	4
Wall & Ceiling Framing	8
Windows, Doors & Stairs	4

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- <u>Study Guide for Residential Carpentry & Repair, 2nd edition</u>, 2014.
 ISBN: 978-1-269-78561-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

COMMERCIAL PAVING

Tests a candidate's knowledge of the construction of roads, airport runways and aprons, parking lots, sidewalks, curbs and gutters, property line walls, patios and driveways, storm drainage facilities, and the performance of related excavating and grading.

Number of Questions	50
Time allowed (hours)	3
Subject Area	# Quest.
Plans & Specifications	3
Survey & Layout	3
Earthwork, Compaction & Stabilization	5
Asphalt Paving Procedures	7
Asphalt Properties and General Uses	7
Use & Application of Asphalt Emulsions	7
Asphalt Preservation & Maintenance	7
Concrete and Reinforcement	8
Safety	3

References

- Highway/Heavy Construction Level 1. ISBN: 978-0-13-061611-1. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>MS-16 Asphalt in Pavement, Preservation & Maintenance</u>, 4th edition, 2009. ISBN: 978-1-934154-58-8. The Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511-8480. Available at www.asphaltinstitute.org.
- MS-19 Basic Asphalt Emulsion Manual, 4th edition. ISBN: 978-1-934154-56-4. The Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511-8480. Available at www.asphaltinstitute.org.
- Standard Specifications for Road and Bridge Construction. State of Florida, 2600 Blair Stone Road M.S. 3500, Tallahassee, FL 32399. Available at www.dot.state.fl.us. Candidate printed versions allowed if exam is open book.

COMMERCIAL SWIMMING POOL

Shall include the construction, repair, water treatment, and servicing of any swimming pool or hot tub or spa, whether public or private or otherwise, regardless of use. The scope of such work includes layout, excavation, operation of construction pumps for dewatering purposes, steelwork, installation of light niches, construction of floors, guniting, fiber glassing, installation of tile and coping, installation of all perimeter and filter piping, installation of all filter equipment and chemical feeders of any type, plastering of the interior, construction of decks (slabs incidental to the pool), construction of equipment rooms or housing for pool equipment, and installation of package pool heaters. (However, the scope of work of such Contractor shall not include direct connections to a sanitary sewer or to potable water lines.) Such Contractors may contract for screen enclosures if a sublicensed specialist performs such work, and contracted with pool work.

Number of Questions	50
Time allowed (hours)	2

Subject Area	# Quest.
Plan Reading & Estimating	4
Site Preparation, Excavation and Backfilling	5
Pool Shell Construction	14
Interior Surface Preparation and Finishing	10
Tile, Coping and Trimwork	4
Accessory Work	3
Care and Operation	6
Safety	4

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Swimming Pools: Design and Construction, Fourth Edition. ISBN: 978-0419235903. Taylor and Francis, 270 Madison Avenue, New York, NY 10016. Available at www.amazon.com.

CONCRETE FORMING AND PLACING (ENGLISH OR SPANISH)

Tests a candidate's knowledge of the components, construction and installation of horizontal and vertical formwork, both site built and prefabricated as well as the installation of reinforcement. Includes the placement and finishing of concrete in forms or on grade and shoring and reshoring of horizontal formwork..

Number of Questions	50
Time allowed (hours)	2
Cubicat Area	# O
Subject Area	# Quest.
Plan Reading & Estimating	6
Properties of Concrete	6
Preparation for Placement	5
Reinforcement	6
Formwork	5
Placement & Finishing	8
Specialized Installations & Finishes	3
Quality Control & Curing	6
Safety	5

- ACI 318 Building Code Requirements for Structural Concrete 2014, 2014. ISBN: 978-0-87031-930-3. American Concrete Institute, 38800 International Way, Country Club Dr, P.O. Box 9094, Farmington Hills, MI 48333. Available at http://www.concrete.org/.
- <u>Concrete Finishing Level One</u>, 1998. ISBN: 978-0-13-010246-1.
 Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Concrete Finishing Level Two</u>, 1999. ISBN: 978-0-13-014860-5. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.

CONCRETE PLACING AND FINISHING

Concrete Placing and Finishing Contractor means a contractor whose services are generally limited to pouring, placing and finishing concrete flatwork (floors, slabs on grade, sidewalks, etc.) including placement of edge forms, mesh reinforcement and plastic vapor barriers incidental thereto.

Number of Questions	40
Time allowed (hours)	2
Subject Area	# Quest.
Plan Reading & Estimating	4
Properties of Concrete	6
Preparation for Placement	5
Reinforcement	3
Placement & Finishing	8
Specialized Installations & Finishes	4
Quality Control & Curing	6
Safety	4

References

- ACI 318 Building Code Requirements for Structural Concrete 2014, 2014. ISBN: 978-0-87031-930-3. American Concrete Institute, 38800 International Way, Country Club Dr, P.O. Box 9094, Farmington Hills, MI 48333. Available at http://www.concrete.org/.
- <u>Concrete Finishing Level One</u>, 1998. ISBN: 978-0-13-010246-1. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Concrete Finishing Level Two</u>, 1999. ISBN: 978-0-13-014860-5. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.

DEMOLITION (ENGLISH OR SPANISH)

Tests a candidate's knowledge of demolition and removal of structures and buildings. Tests a candidate's knowledge of demolition of structural steel, structural concrete, masonry and structural wood framing. Emphasis on cranes and crane safety as well as explosives and explosive safety. Focuses on interpreting plans and understanding of how components of various structures are assembled. Covers single and multi-story buildings and structures of the types mentioned above.

Number of Questions	50
Time allowed (hours)	2

Subject Area	# Quest.
Plan Reading & Interpretation	6
Structural Concrete	5
Structural Masonry	5
Structural Framing	4
Structural Steel	6
Blasting	6
Rigging and Cranes	8
Safety	10

References

- Carpentry Level One, 2006. ISBN: 978-0-13-229268-9. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Code of Federal Regulations, Title 29, Part 1926, 2012. ISBN: 9780160911576. Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Available at http://bookstore.gpo.gov. Candidate printed versions permitted in testing room if exam is open book. OSHA Standards for the Construction Industry is permitted as a substitute for this book.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Ironworking Level One, 2011. ISBN: 978-0-13-213714-0. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- ISEE Blasters' Handbook. ISBN: 978-1892396006. International Society of Explosives Engineers, 30325 Bainbridge Road, Cleveland, OH 44139. Available at www.isee.org.
- <u>Masonry Level One</u>, 2004. ISBN: 978-0-13-228718-0. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- NFPA 241 Safeguarding Construction, Alteration and Demolition
 Operations. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

DRYWALL

Tests a candidate's knowledge of installation of gypsum drywall products to wood and metal studs, wood and steel joists, and metal runners, including the preparation of the surface over which the drywall product is to be applied, and the placement of metal studs, runners, and all necessary trim.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest
Subject Area	# Quest.
Plan Reading & Estimating	6
Construction Materials & Methods	6
Thermal & Moisture Protection	5
Drywall Installation	7
Drywall Finishing	8
Steel Framing	7
Exterior Cladding	3
Interior Specialties & Finishes	4
Safety	4

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Drywall Level 1, 2007. ISBN: 978-0-13-604512-0. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Drywall Level 2, 2009. ISBN: 978-0-13-604480-2. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

DRYWALL & LATHING

Specialty building contractor shall include and be limited to the installation of gypsum drywall products to existing studs, joists, or suspended ceiling channels; the fabrication and installation of all necessary and incidental metal accessories, including non-load bearing studs, runners, hangers, channels, drywall metal suspension accessories, and prefabricated ceiling materials, and the preparation and finish of the drywall surface. In order to be eligible to be certified as a Class "DL" specialty building contractor by the board, the applicant shall have at least two (2) years of practical experience in the category.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Plan Reading & Estimating	6
Materials	7
Lathing	7
Drywall Installation	7
Drywall Finishing	5
Steel Framing	7
Exterior Cladding	3
Interior Specialties & Finishes	4
Safety	4

- ASTM C1063-12a Standard Specification for Installation of Lathing & <u>Furring to Receive Interior & Exterior Portland Cement Based Plaster</u>, 2012. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Available at http://www.astm.org/. Candidate printed versions allowed if exam is open book.
- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Drywall Level 1, 2007. ISBN: 978-0-13-604512-0. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Drywall Level 2, 2009. ISBN: 978-0-13-604480-2. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

ELECTRICAL SIGN CONTRACTOR 2011

The scope of certification includes the structural fabrication including concrete foundation, erection, installation, alteration, repair, service and wiring of electrical signs and outline lighting. The scope of certification shall not include the provision of, or any electrical work beyond, the last disconnect mean or terminal points. However, a contractor certified under this section may provide the electrical entrance requirements for metering and main disconnect of remote billboards or signs which are independent of any structure or building and which require no more than twenty-five (25) kilowatts at two hundred fifty (250) volts maximum (61G6-7.001).

Number of Questions	40
Time allowed (hours)	2

Subject Area	# Quest.
Basic Electricity & Wiring	6
Electrical Signs & Outline Lighting	16
Grounding & Bonding	4
Motors & Controls	3
Transformers	3
Wiring & Protection	4
Wiring Methods & Materials	4

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- NFPA 70 National Electrical Code, 2011. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

FENCING (ENGLISH OR SPANISH)

Tests a candidate's knowledge of fencing installation.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Plan Reading & Estimating	5
Layout & General Math	5
Wood Fencing	10
Masonry Fencing	10
Metal & Chain Link Fencing	10
Safety	10

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Fences and Retaining Walls, 1990. ISBN: 0-934041-53-9. Craftsman Book Company, 6058 Corte Del Cedro, Carlsbad, CA 92009. Available at www.craftsman-book.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club

GARAGE DOOR INSTALLER CONTRACTOR

A Garage door installer is a person or firm qualified and certified to install, maintain, repair, alter or extend residential or commercial garage doors, including all hardware and operating devices. One-hundred-twenty-volt electrical installation required for the door operating devices may be included in the contract for work but must be subcontracted to a certified or registered electrical contractor.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Garage Doors Installation	18
Garage Doors, Materials & Hardware	17
Garage Door Service, Repair & Maintenance	9

6

References

Safety

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- **TDS 151 General Code Inspection Guidelines for Garage Doors.** Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book.
- TDS 156 Standard Wood Header and Jamb Detail Guidelines. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 157 Garage Doors and Foam Plastic.
 Door and Access Systems

 Manufacturers
 Association
 International,
 1300
 Sumner
 Avenue,

 Cleveland,
 OH
 44115-7333.
 Available
 at

 http://www.dasma.com/PubTechData.asp.
 Candidate
 printed
 versions

 allowed if exam is open book
 Source
 Available
 Available
 Available
- TDS 158 Glazing in Garage Doors. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 160 Sectional Garage Door Terminology. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- **TDS 161 Connecting Garage Door Jambs to Building Framing.** Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 162 Wood Door Finishing Guidelines.Door and Access SystemsManufacturersAssociationInternational,1300SumnerCleveland,OH44115-7333.Availableat

http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book

- TDS 163 Garage Door R-Value. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 164 Drywall Surfaces and the Mounting of Garage Door Hardware. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 165 Garage Door Manual Operation.Door and Access SystemsManufacturersAssociationInternational,1300SumnerAvenue,Cleveland,OH44115-7333.Availableathttp://www.dasma.com/PubTechData.asp.Candidateprintedversionsallowed if exam is open bookKernelKernelKernel
- TDS 166 Guidelines for Connecting a Drawbar Operator to a Sectional Garage Door. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book.
- TDS 167 Sectional Garage Door & Electric Operator Checklist forHome Inspectors and Consumers.Door and Access SystemsManufacturersAssociation International, 1300Sumner Avenue,Cleveland,OH44115-7333.Available athttp://www.dasma.com/PubTechData.asp.Candidate printed versionsallowed if exam is open book
- TDS
 172 Garage Door Labels.
 Door and Access Systems

 Manufacturers
 Association
 International, 1300
 Sumner
 Avenue,

 Cleveland,
 OH
 44115-7333.
 Available
 at

 http://www.dasma.com/PubTechData.asp.
 Candidate
 printed
 versions

 allowed if exam is open book
 Source
 Available
 Available
 Available
- TDS 179 Wood Garage Door Inspection and Maintenance Guidelines. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 181 General Code Inspection Guidelines For Wind Load Rated Garage Doors. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 182 Technical Considerations for Dock Doors.Door and AccessSystems Manufacturers Association International, 1300 Sumner Avenue,
Cleveland, OH 44115-7333.Available athttp://www.dasma.com/PubTechData.asp.Candidateprintedallowed if exam is open bookCandidateprinted
- TDS 260 Common Rolling Steel Door Installation Problems. Door and Access Systems Manufacturers Association International, 1300 Sumner Avenue, Cleveland, OH 44115-7333. Available at http://www.dasma.com/PubTechData.asp. Candidate printed versions allowed if exam is open book
- TDS 270 Recommended Rolling Door Maintenance Practices for Building Maintenance Supervisors.
 Door and Access Systems

 Manufacturers
 Association
 International, 1300
 Sumner
 Avenue,

 Cleveland,
 OH
 44115-7333.
 Available
 at

 http://www.dasma.com/PubTechData.asp.
 Candidate
 printed
 versions

 allowed if exam is open book
 Source
 Avenue
 Versions

GENERAL CONTRACTOR (ENGLISH OR SPANISH)

Tests a candidate's knowledge of the construction, repair, alteration, remodeling, addition to, subtraction from, improvement, and demolition of any building or structure including related improvements to real estate excluding electrical, mechanical, plumbing, and liquefied petroleum gas work related thereto.

Number of Questions Time allowed (hours)	80 3
Subject Area	# Quest.
Plan Reading & Estimating	10
Sitework	6
Concrete	12
Masonry	8
Structural Steel	7
Carpentry & Metal Framing	12
Roofing	5
Associated Trades	3
Interior Finishes	5
Exterior Finishes	6
Safety	6

References

- <u>2012 Study Guide for Structural Steel</u>, 2012. ISBN: 978-1-269-08432-1. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- ACI 530 Building Code Requirements and Specification for Masonry <u>Structures 2013</u>, 2013. ISBN: 978-1-929081-43-1. American Concrete Institute, 38800 International Way, Country Club Dr, P.O. Box 9094, Farmington Hills, MI 48333. Available at http://www.concrete.org OR http://www.techstreet.com/searches/16672726 OR amazon.com
- Carpentry Level One, 2006. ISBN: 978-0-13-229268-9. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Concrete Finishing Level Two</u>, 1999. ISBN: 978-0-13-014860-5. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- <u>Masonry Level Three</u>, 2005. ISBN: 978-0-13-109169-6. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Study Guide for Commercial Carpentry, 2nd Edition</u>, 2014. ISBN: 978-1-269-78661-4. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

GLASS & GLAZING

Those who are qualified to select, cut, assemble, and install all makes and kinds of glass and glasswork and execute the glazing of frames, panels, sash and door and holding metal frames, ornamental decoration, mirrors, tub and shower enclosures.

Number of Questions

Time allowed (hours)

Subject Area	# Quest.
Plan Reading & Estimating	5
Glass & Glazing	12
Plastic & Glazing	4
Sealants	10
Curtain Walls	6
Structural Glazing Systems	4
Bath Enclosures & Mirrors	4
Safety	5

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- GANA Glazing Manual, 50th Anniversary Edition. Glass Association of North America, 800 SW Jackson Street, STE. 1500, Ste. A, Topeka, KS 66612-1200. Available at www.glasswebsite.com.
- <u>GANA Sealant Manual</u>, 2008. Glass Association of North America, 800 SW Jackson Street, STE. 1500, Ste. A, Topeka, KS 66612-1200.

HEATING CONTRACTOR

Heating Contractor is a specialty mechanical contractor, qualified and certified to install, maintain, repair, alter, add to or change systems of heating, whether by water, steam or hot air furnaces and all appurtenances and duct work used in conjunction therewith.

Number of Questions Time allowed (hours)	100 3	
Subject Area	# Quest.	
General Knowledge	18	
Piping	25	
Systems & Sizing	25	
Equipment	7	
Maintenance	16	
Plan Reading	9	

References

- Advanced Mechanical Study Guide , 2nd edition, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Fuel Gas, 2017. ISBN: 978-1-60983-691 7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Mechanical, 2017. ISBN: 978-1-60983-690-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- HVAC Basics for Contractors,3rd Edition, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston,

- MA 02116. Available at www.provbookstore.com.
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

HVAC

Tests a candidate's knowledge of the installation, maintenance, repair, fabrication, alteration, and extension of AC/refrigeration, heating, ventilation systems, duct systems, warm air systems, low pressure boiler and unfired pressure vessel systems, solar heating and cooling systems and related appurtenances unlimited in horsepower and tonnage.

Number of Questions Time allowed (hours)	100 4
Subject Area	# Quest.
General Knowledge	# Quest. 19
0	-
Piping	19
Systems & Sizing	19
Equipment	19
Maintenance	19
Plan Reading	5

References

2

- Advanced Mechanical Study Guide , 2nd edition, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Energy Conservation, 2017. ISBN: 978-1-60983-695-5. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Fuel Gas, 2017. ISBN: 978-1-60983-691 7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Mechanical, 2017. ISBN: 978-1-60983-690-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- <u>HVAC Basics for Contractors,3rd Edition</u>, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

INTERLOCKING PAVERS

Tests a candidate's knowledge of interlocking paver units including material selection, site preparation, subbases, bases, installation methods and concrete work related to the paver system.

Number of Questions	50
Time allowed (hours)	2

Subject Area

Plan Reading & Estimating	8
Soil Characteristics & Compaction	6
Base Materials, Bedding & Edge Restraints	7
Paving Materials	7
Paver Installation	16
Safety	6

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- ICPI Concrete Paver Installer Course Manual, 7th Edition, 2000. Interlocking Concrete Pavement Institute, 13921 Park Center Road, Suite 270, Herndon, VA 20171. Available at www.icpi.org.

IRRIGATION SPRINKLER (ENGLISH OR SPANISH)

A Master Lawn Sprinkler is qualified and certified to install, maintain, repair, alter or extend a lawn sprinkling system and appliances and devices used in connection with such systems, except that such systems shall not include the drilling of wells or the connecting of such systems to potable water. Sprinkler and irrigation systems used for agricultural purposes shall not be included within the scope of this subsection.

Number of Questions	50	
Time allowed (hours)	2	
Subject Area	# Quest.	
Plan Reading & Estimating	# Quest: 6	
Planning & Layout	8	
Materials	6	
Controls	6	
Irrigation Installation	10	
Cross Contamination & Backflow Prevention		
Reclaimed Water	4	
Safety	5	

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Administrative Code, Ch. 62-610, Reuse of Reclaimed Water & Land Application, 2012. State of Florida, 2600 Blair Stone Road M.S. 3500, Tallahassee, FL 32399. http://www.dep.state.fl.us/legal/Rules/wastewater/62-610.pdf

 Candidate printed versions permitted in testing room if exam is open book.
- Florida Building Code 2017 Plumbing, 2017. ISBN: 978-1-60983-689 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- <u>Turf Irrigation Manual The Complete Guide to Landscape Irrigation</u>
 <u>Design</u>, 5th Ed., 1994. ISBN: 978-0963509604. Weathermatic, P.O.
 Box 180205, Dallas, TX 75218-0205. Available at www.amazon.com.

JOURNEYMAN ELECTRICIAN (ENGLISH OR SPANISH) 2011

A Journeyman Electrician is qualified and tested to perform work in the electrical trades while employed by a Master Electrician.

Number of Questions	70
Time allowed (hours)	3

Subject Area	# Quest.
Communication Systems	4
Equipment for General Use	6
General Electrical Theory & Principles	9
Motors & Controls	3
Plan Reading	4
Special Conditions	3
Special Equipment	3
Special Occupancies	2
Wiring & Protection	14
Wiring Methods & Materials	22

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- NFPA 70 National Electrical Code, 2011. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

MARINE CONSTRUCTION

Marine Contractors are those who are qualified with the experience and skill to construct, maintain, alter, install or repair seawalls, bulkheads, revetments, docks, piers, wharfs, groins, boat lifts, davits and other marine structures, including pile driving.

Number of Questions Time allowed (hours)	75 3
Subject Area	# Quest.
Carpentry	10
Florida Building Code application to Marine Structures	10
Piles	10
Plan Reading & Estimating	6
Safety	9
Sitework	10
Structures	10
Concrete and Reinforcement	10

- Code of Federal Regulations, Title 29, Part 1926, 2012. ISBN: 9780160911576. Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Available at http://bookstore.gpo.gov. Candidate printed versions permitted in testing room if exam is open book. OSHA Standards for the Construction Industry is permitted as a substitute for this book.
- DESIGN OF COASTAL REVETMENTS, SEAWALLS, AND BULKHEADS, 1995. US Army Corps of Engineers, Washington, DC. Available at http://www.delmar.ca.us/DocumentCenter/View/1899 Candidate printed versions permitted in testing room if exam is open book.
- FLDOT Structures Detailing Manual, 2013, 2013. State of Florida, 2600 Blair Stone Road M.S. 3500, Tallahassee, FL 32399. http://www.dot.state.fl.us/structures/StructuresManual/CurrentRelease/V ol2_SDM.pdf Candidate printed versions allowed if exam is open book.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0.

International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

- Fundamentals of Hydraulic Dredging, 1996. ISBN: 9780784401477. American Society of Civil Engineers, 1800 Alexander Bell Drive, Reston, VA 20191. https://www.asce.org/templates/publications-bookdetail.aspx?id=7971
- Pile Design and Construction Practice, 5th. ISBN: 978-0415385824. Taylor and Francis, 270 Madison Avenue, New York, NY 10016. Available at www.Contractor-books.com
- Standard Specifications for Road and Bridge Construction, 2013. State of Florida, 2600 Blair Stone Road M.S. 3500, Tallahassee, FL 32399. Available at www.dot.state.fl.us. Candidate printed versions allowed if exam is open book.
- Study Guide for General Engineering, 3rd edition, 2014. ISBN: 978-1-269-78657-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- The Dock Manual: Designing/Building/Maintaining, 1999. ISBN: 978-1-58017-098-7. Storey Publishing, 210 MASS MoCA Way, North Adams, MA 01247. https://www.storey.com/books/the-dock-manual/#

MASONRY (ENGLISH OR SPANISH)

Tests a candidate's knowledge of the selection, cutting, and laying of brick, stone, and masonry products. This includes structural glass brick or block, insulated concrete units, and the placement of reinforcing steel, including concrete forming and placing incorporated into the masonry work.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Masonry Installation	12
Mortar	8
Masonry Units	8
Plan Reading & Estimating	8
Reinforcement	7
Safety	7

References

ACI 530 Building Code Requirements and Specification for Masonry

- Structures 2013, 2013. ISBN: 978-1-929081-43-1. American Concrete Institute, 38800 International Way, Country Club Dr, P.O. Box 9094, Farmington Hills, MI 48333. Available at http://www.concrete.org OR http://www.techstreet.com/searches/16672726 OR amazon.com
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- <u>Study Guide for Masonry Contractors, 2nd Edition</u>, 2014. ISBN: 978-1-269-78558-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

MASTER ELECTRICIAN (ENGLISH OR SPANISH) 2011

Those who have the knowledge and skill, to install, repair, alter, add to or change any electrical wires, fixtures, appliances, apparatus, raceways, conduit or any part thereof; which generates, transmits, transforms or utilizes electrical energy in any form for light, heat, power or communications, all in compliance with applicable plans, specifications, codes, laws and regulations

Number of Questions Time allowed (hours)	75 3
Subject Area	# Quest.
General Electrical Knowledge	12
Communication Systems	3
Equipment for General Use	6
Motors & Controls	4
Plan Reading	4
Special Conditions	4
Special Equipment	3
Special Occupancies	2
Wiring & Protection	17
Wiring Methods & Materials	20

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- NFPA 70 National Electrical Code, 2011. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

MASTER MECHANICAL

Master Mechanical shall mean any person whose services are unlimited in the execution of contracts requiring the experience, knowledge, and skill to perform the following; install maintain, repair, fabricate, alter, extend or design (when not prohibited by law) central air conditioning, refrigeration, heating and ventilation (including duct work in connection with a complete system only to the extent such duct work is performed by the Contractor necessary to make complete an air distribution system) boiler and unfired pressure vessel systems, lift stations, equipment and piping and all appurtenances, apparatus, or equipment used in connection therewith; also piping, insulation of pipes, vessels and ducts, pressure and process piping, pneumatic control piping, gasoline tanks and pump installation and piping for same, fire sprinkling systems and standpipes, air piping, vacuum line piping, oxygen lines, nitrous oxide piping, ink and chemical lines, fuel transmission lines and installation of a condensate drain from an air conditioning unit to an existing safe waste or other approved disposal other than a direct connection to a sanitary system, all in such a manner to comply with all plans, specifications, codes, laws and regulations applicable thereto. The scope of work for such Contractor shall not include any work such as liquefied petroleum or natural gas fuel lines within buildings, potable waterlines or connections thereto, sanitary sewer lines, swimming pool piping and filters and electrical power wiring.

Number of Questions Time allowed (hours)

Subject Area	# Quest.
General Knowledge	16
Piping	12
Systems & Sizing	31
Equipment	16
Maintenance	16
Plan Reading	9

References

- Advanced Mechanical Study Guide , 2nd edition, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Energy Conservation, 2017. ISBN: 978-1-60983-695-5. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Fuel Gas, 2017. ISBN: 978-1-60983-691 7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Mechanical, 2017. ISBN: 978-1-60983-690-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- HVAC Basics for Contractors,3rd Edition, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221.
 Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Manual N Commercial Load Calculations, 2008. ISBN: 978-1892765383. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. Available at http://www.acca.org.
- <u>Residential Load Calculations Manual J</u>. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.acca.org

METAL AWNING & STORM SHUTTER CONTRACTOR (ENGLISH OR SPANISH)

Metal Awning and Storm Shutter Contractor is qualified and certified to fabricate, erect and install awnings or canopies of metal including other materials, incidental thereto, in or on buildings or other structures, and which may be, in whole or part, supported from a building wall erected and provided by others, or may be selfsupporting, and including footings or slabs on grade in connection therewith. Such contractor shall have a qualifying agent with experience and skill gained by at least one (1) year's practical work in this field and who has passed a designated examination

Number of Questions	50
Time allowed (hours)	2
. ,	
Subject Area	# Quest.

in Queber
6
6
6

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- <u>Carpentry Level One</u>, 2006. ISBN: 978-0-13-229268-9. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- <u>Hurricane Shutter Designs</u>. APA The Engineered Wood Association, 7011 S. 19th ST, Tacoma, WA 98466. Available at www.apawood.org Candidate printed versions allowed if exam is open book.

PAINTING AND DECORATING

Use paint spraying equipment and hand tools to apply paint to interior and exterior surfaces; includes painting concrete, sealing river rock, sandblasting and general coating except roof applications.

Number of Questions Time allowed (hours)	50 3
Subject Area	# Quest.
Safety	6
Substrates & Preparation	12
Materials	10
Application	12
Job Planning & Estimating	5
Equipment	5

References

- Painting Level One, 1997. ISBN: 978-0-13-771239-7. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Painting Level Two, 1997. ISBN: 978-0-13-771296-0. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.

PLASTERING & LATHING (ENGLISH OR SPANISH)

Lathing and Plastering Scope: A lathing and plastering contractor coats surfaces with a mixture of sand, gypsum plaster, quick-lime or hydrated lime and water, or sand and cement and water, or a combination of such other materials that create a permanent coating, including coatings for the purpose of soundproofing and fireproofing. These coatings are applied with a plasterer?s trowel or sprayed over any surface which offers a mechanical means for the support of such coating, and will adhere by suction. This contractor also installs lath (including metal studs) or any other material prepared or manufactured to provide a base or bond for such coating. A lathing and plastering contractor also applies and affixes wood and metal lath, or any other material prepared or manufactured to provide key or suction bases for the support of plaster coatings. This classification includes the channel work and metal studs for the support of metal or any other lathing material and for solid plaster partitions.

Number of Questions	50
Time allowed (hours)	3

Subject Area	# Quest.
Plan Reading & Estimating	5
Framing	10
Lathing	10
Materials	10
Application & Finishing	10
Safety	5

References

- ASTM C1007-11a Standard Specification for Installation of Load <u>Bearing (Transverse and Axial) Steel Studs and Related Accessories</u>, 2011. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Available at http://www.astm.org/. Candidate printed versions allowed if exam is open book.
- ASTM C1063-12a Standard Specification for Installation of Lathing & <u>Furring to Receive Interior & Exterior Portland Cement Based Plaster</u>, 2012. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Available at http://www.astm.org/. Candidate printed versions allowed if exam is open book.
- ASTM C926-12a Standard Specification for Application of Portland <u>Cement Based Plaster</u>. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Available at http://www.astm.org/. Candidate printed versions allowed if exam is open book.
- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- **<u>Gypsum Construction Handbook</u>**, 2009. ISBN: 978-0876292587. United States Gypsum Corporation, 350 Burnhamthorpe Road West, 5th Floor, Mississauga, ON. Available at www.amazon.com.
- Introduction to Construction Math, 2015. NCCER MATS Testing, 13614
 Progress Blvd, Alachua, FL 32615.

REFRIGERATION & AIR CONDITIONING CONTRACTOR

A Refrigeration and Air Conditioning Contractor is a specialty mechanical contractor qualified and certified to install, repair alter, add to or change any system of refrigeration, air conditioning, heating and ventilating, unlimited in horsepower or tons, including any or all duct systems necessary to make complete a refrigeration or air conditioning system and including the installation of a condensate drain from an air conditioning unit to an existing safe waste or other approved disposal other than a direct connection to a sanitary disposal system; provided, however, ammonia refrigeration, boilers or unfired vessels shall not be a part of the scope of such work.

Number of Questions	100
Time allowed (hours)	3

Subject Area	# Quest.
General Knowledge	18
Piping	18
Equipment	15
Maintenance	21
Plan Reading	10
Systems & Sizing	18

References

- Advanced Mechanical Study Guide , 2nd edition, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Energy Conservation, 2017. ISBN: 978-1-60983-695-5. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Fuel Gas, 2017. ISBN: 978-1-60983-691 7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Mechanical, 2017. ISBN: 978-1-60983-690-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

RESIDENTIAL AC

Tests a candidate's knowledge of the installation, maintenance, repair, alteration, and extension of residential air conditioning systems, related warm air heating, ventilation, and duct systems, not to exceed five tons cooling capacity per unit.

Number of Questions Time allowed (hours)	100 3
Subject Area	# Quest.
Equipment	16
General Knowledge	16
Maintenance	24
Piping	8
Plan Reading	2
Systems & Sizing	34

- Advanced Mechanical Study Guide , 2nd edition, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Florida Building Code 2017 Energy Conservation, 2017. ISBN: 978-1-60983-695-5. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Fuel Gas, 2017. ISBN: 978-1-60983-691 7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

- Florida Building Code 2017 Mechanical, 2017. ISBN: 978-1-60983-690-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Residential, 2017. ISBN: 978-1-60983-692-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- HVAC Basics for Contractors,3rd Edition, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

RESIDENTIAL CONTRACTOR

Residential Contractor means a contractor whose services are limited to construction, remodeling, repair, or improvement of one-family, two-family, or three-family residences not exceeding two (2) habitable stories above no more than one uninhabitable story and accessory use structure in connection therewith. As regulated under Florida Statute, a person who has passed a competency examination as a Residential Contractor may perform these or related tasks or may supervise persons in his employ in the execution of these tasks.

Number of Questions	60
Time allowed (hours)	3
Subject Area	# Quest.
Plan Reading	6
	-
Sitework & Foundations	5
Concrete and Reinforcement	8
Masonry	8
Carpentry	10
Roofing	4
Interior Finishes	5
Exterior Finishes	5
Associated Trades	4
Safety	5

References

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2017 Residential, 2017. ISBN: 978-1-60983-692-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Masonry and Sitework for the Residential Contractor, 2nd edition, 2nd. ISBN: 978-1-269-78556-3. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- <u>Residential Home Builder Study Guide</u>. ISBN: 9781323550915. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- <u>Study Guide for Residential Carpentry & Repair, 2nd edition</u>, 2014.
 ISBN: 978-1-269-78561-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

RESIDENTIAL SWIMMING POOL (ENGLISH OR SPANISH)

Tests a candidate's knowledge of the construction, service, and repair of residential swimming pools. Does not include direct connections to a sanitary sewer system nor to potable water lines, nor the grounding and bonding of metal surfaces, nor the making of any electrical connections.

Number of Questions Time allowed (hours)	50 3
Subject Area	# Quest.
Plan Reading & Estimating	5
Site Preparation, Excavation and Backfilling	5
Pool Shell Construction	14
Interior Surface Preparation and Finishing	6
Tile, Coping and Trimwork	5
Accessory Work	5
Care and Operation	6
Safety	4

References

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- <u>Builder's Guide to Swimming Pool Construction</u>, 2005. ISBN: 978-1889892504. Builder's Book, Inc., 8001 Canoga Avenue, Canoga Park, CA 91304. Available at www.amazon.com.
- Florida Building Code 2017 Residential, 2017. ISBN: 978-1-60983-692-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

ROOFING (ENGLISH OR SPANISH)

A Roofing Contractor is a contractor qualified and certified to install, repair and replace roof systems, as defined in the South Florida Building Code, and the waterproofing thereof. Work may include, but shall not be limited to, roof deck insulation, roof coating, painting and covering, including use of sheet metal and installation of other sheet metal products incidental to roofing work, including gutters and downspouts, and other material in connection therewith or any combination thereof and including installation of nonstructural decking and siding. During the repair or replacement process of a roof system, a roofing contractor shall be allowed to repair and/or replace damaged decking and/or damaged wood structural or nonstructural members of the roof framing, provided that such replacement and/or repair conforms to the requirements of the South Florida Building Code and the repair or replacement of damaged decking and wood structural or nonstructural members of the roof framing constitutes less than fifty (50) percent of the value of the total work performed.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Deck & Underlayment	6
Flashing	5
High Slope Roofing	15
Low Slope Roofing	9
Plan Reading & Estimating	8
Safety	7

References

Core 2015, 27202-13 Roofing Applications, & 27403-14 Advanced Roof

- **Systems.** Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116.
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0.

International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org

<u>Roofing - Study Guide</u>, 2018. ISBN: 978132388055. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116.

ROOFING UNLIMITED

Tests a candidate's knowledge of the installation, repair, and replacement of roof coverings, including roof deck insulation, roof coating, painting, covering, use of sheet metal products incidental to roofing work or other related material, and installation of nonstructural decking and siding.

Number of Questions	50
Time allowed (hours)	2

Subject Area	# Quest.
Plan Reading & Estimating	8
Deck & Underlayment	6
Flashing	5
High Slope Roofing	15
Low Slope Roofing	9
Safety	7

References

- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Roofing Study Guide, 2018.
 ISBN: 978132388055.
 Pearson, 501

 Boylston Street, Suite 900, Boston, MA 02116.
- Core 2015, 27202-13 Roofing Applications, & 27403-14 Advanced Roof
 Systems. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116.

SWIMMING POOL MAINTENANCE CONTRACTOR (LIMITED)

Swimming Pool Maintenance Contractor (limited) is a contractor qualified and certified to do any or all of the following, including, but not limited to, maintaining and treating the water in existing swimming pools, both public and private, making minor repairs to existing pool masonry such as patching cracks in pool bottoms and walls, repainting or resurfacing the walls and bottoms of pools, performing preventive maintenance and replacing existing equipment and appurtenances thereof of swimming pools, such as pumps, valves, filters and chlorinators; provided, such a contractor may only replace existing equipment and appurtenances in private pools of single-family residences.

Number of Questions Time allowed (hours)	75 3
Subject Area	# Quest.
Calculations	8
Circulation	10
Disinfection	13
Filtration	13
Management	7
Repairs	4
Safety	10

Testing

References

- Florida Administrative Code, Ch. 64E-9, Public Swimming Pools &

 Bathing Places,
 2009.
 State of Florida, 2600 Blair Stone Road M.S.

 3500,
 Tallahassee,
 FL
 32399.
 available
 at

 http://www.floridahealth.gov/environmental-health/swimming-pools/_documents/64E-9_FAC_Draft_Rev7_no_strike.pdf
 Candidate

 printed versions allowed if exam is open book
 State
 State
 State
 State
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Residential, 2017. ISBN: 978-1-60983-692-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Pool & Spa Operator Handbook, 2012. ISBN: 0-9815803-9-5. National Swimming Pool Foundation, 4775 Granby Circle, Colorado Springs, CO 80919. www.nspf.org

SWIMMING POOL MAINTENANCE UNLIMITED

Swimming Pool Maintenance Contractor (unlimited) is a contractor qualified and certified to do the work of a swimming pool maintenance contractor (limited) and is covered by the same definition except that the swimming pool maintenance contractor (unlimited) shall be able to carry on all such work in connection with both private and public pools.

Number of Questions Time allowed (hours)	75
	3
Subject Area	# Quest.
Calculations	9
Circulation	10
Disinfection	10
Filtration	14
Management	7
Repairs	5
Safety	10
Testing	10

- Florida Administrative Code, Ch. 64E-9, Public Swimming Pools & Bathing Places, 2009. State of Florida, 2600 Blair Stone Road M.S. 3500, Tallahassee, FL 32399. available at http://www.floridahealth.gov/environmental-health/swimming-pools/_documents/64E-9_FAC_Draft_Rev7_no_strike.pdf Candidate printed versions allowed if exam is open book
- Florida Building Code 2017 Building, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Florida Building Code 2017 Residential, 2017. ISBN: 978-1-60983-692-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Pool & Spa Operator Handbook, 2012. ISBN: 0-9815803-9-5. National Swimming Pool Foundation, 4775 Granby Circle, Colorado Springs, CO 80919. www.nspf.org

TILE & MARBLE

Mix and prepare the base for and set tile and marble.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Plan Reading & Estimating	6
Substrates	11

Substrates	11
Materials	6
Layout & Planning	6
Ceramic Tile Installation	11
Marble & Stone Installation	5
Safety	5

References

. . .

- American National Standards Specifications for the Installation of <u>Ceramic Tile</u>, Version 2011.1. American National Standards Institute, 25 West 43rd Street, 4th floor, New York, NY 10036. Available at http://www.tcnatile.com/.
- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- <u>Setting Tile</u>, 1995. The Taunton Press, 63 South Main St., P.O. Box 5506, Newton, CT 06470. Available at www.taunton.com.
- TCNA Handbook for Ceramic, Glass, and Stone Tile Installation. Tile Council of North America, 100 Clemson Research Blvd., Anderson, SC 29625. Available at www.tcnatile.com.
- Tile Your World,
 2003.
 ISBN: 0-9742754-3-3.
 Mistflower Press,
 6717

 Mistflower
 Lane,
 Katy,
 TX
 77449.
 Available at mistflowerpress.com/index.html.

TILE, TERRAZZO AND MARBLE (ENGLISH OR SPANISH)

Tile, Terrazzo, and Marble Contractors are those who are qualified to prepare the base, including backing material set, repair and refinish, tile, terrazzo and marble, and to install laminate or non-nailable wood flooring.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Plan Reading & Estimating	6
Substrates	10
Materials	6
Layout & Planning	6
Ceramic Tile Installation	8
Marble Installation	4
Terrazzo	5
Safety	5

References

- American National Standards Specifications for the Installation of <u>Ceramic Tile</u>, Version 2011.1. American National Standards Institute, 25 West 43rd Street, 4th floor, New York, NY 10036. Available at http://www.tcnatile.com/.
- Basic Safety, 2009. ISBN: 978-0-136-09875-1. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com or http://nccer.pearsonconstructionbooks.com.
- <u>Setting Tile</u>, 1995 copyright. ISBN: 978-1561580804. Taunton Press, 63 South Main Street, P.O. Box 5506, Newtown, CT 06470-5506. Available at www.taunton.com.
- TCNA Handbook for Ceramic, Glass, and Stone Tile Installation. Tile Council of North America, 100 Clemson Research Blvd., Anderson, SC 29625. Available at www.tcnatile.com.
- Terrazzo Specifications and Design Guide, 1999. National Terrazzo and Mosaic Association, 110 East Market St., Leesburg, VA 20176. Available at http://naterrazzo.com/documents/Terrazzo_Specifications_amp_Design Guide.pdf. Candidate printed versions allowed if exam is open book.
- Tile Your World, 2003. ISBN: 0-9742754-3-3. Mistflower Press, 6717 Mistflower Lane, Katy, TX 77449. Available at mistflowerpress.com/index.html.

UNDERGROUND UTILITIES

Tests a candidate's knowledge of the installation, maintenance, repair, alteration, and extension of underground utilities.

Number of Questions Time allowed (hours)	50 2
Subject Area	# Quest.
Plan Reading & Estimating	6
Survey & Layout	4
Sitework	15
Underground Piping Materials & Fittings	7
Underground Pipe Assembly & Installation	8
Safety	10

- Basic Safety. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Installation Guide for Ductile Iron Pipe, 2015. Ductile Iron Research Association, 245 Riverchase Pkwy East, Ste. O, Birmingham, AL 35244. Available at http://www.dipra.org/publications/
- <u>Study Guide for Utilities Contractors, 2nd edition</u>, 2014. ISBN: 978-1-269-78571-6. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com