CLAY COUNTY – EXAM DESCRIPTIONS

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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 Questions	50
Time 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

- 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 & Soffit, 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.
- <u>Basic Safety</u>. ISBN: 9781323676189.
 Prentice Hall, P.O. Box 11071, Des
 Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2020 Building, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- 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
- Study Guide for Residential Carpentry & Repair, 2nd edition, 2014. ISBN: 978-1-269-78561-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

BUILDING CONTRACTOR (ENGLISH OR SPANISH)

Building Contractor means a contractor whose services are limited to construction of commercial and single-dwelling or multipledwelling 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/1 6672726 OR amazon.com

- Concrete Finishing Level Two, 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 2020 Building, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Masonry Level Three, 2014. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336.
- Study Guide for Commercial Carpentry,
 2nd Edition, 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 2014 (English or Spanish)

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 5
Grounding & Bonding	4
Raceways & Boxes	3
Conductors & Cables	3
Special Occupancies	1

- American Electrician's Handbook, 16th Edition. ISBN: 978-0071798808.
 McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004.
 Available at https://www.mheducation.com/higher ed/product/american-electricians-handbook-sixteenth-edition-croft-hartwell/9780071798808.html
- 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, 2014. ISBN: 9781455906727. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- Understanding and Servicing Alarm
 Systems, 3rd Ed., 1999. ISBN: 978-0750672061. Butterworth-Heinemann, 225 Wildwood Ave., Woburn, MA 01801. Available at www.amazon.com.

Burglar & Fire Alarm Electrical 2017 (English or Spanish)

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.
Conductors & Cables	3
Fire & Intrusion Detection & Alarms	24
Grounding & Bonding	4
General Electrical Knowledge	5
Notification Appliances & Signaling Circuits	5
Power Supplies	5
Raceways & Boxes	3
Special Occupancies	1

- American Electrician's Handbook, 17th Edition. ISBN: 978-1260457919. McGraw Hill Publishing Inc., P.O. Box 182604, Columbus, OH 43272.
- 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 Electric Code 2017, 2017. ISBN: 978-145591277-3. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- Understanding and Servicing Alarm
 Systems, 3rd Ed., 1999. ISBN: 9780750672061. 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.
Business Organization	2
Licensing	2
Lien laws	3
Tax Laws	4
Safety OSHA	4
Labor Laws	7
Contract Management	9
Project Management	6
Estimating & Bidding	4
Financial Management	6
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.

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	g5
Pool Shell Construction	14
Interior Surface Preparation and Finishing	10
Tile, Coping and Trimwork	4
Accessory Work	3
Care and Operation	6
Safety	4

- <u>Basic Safety</u>. ISBN: 9781323676189.
 Prentice Hall, P.O. Box 11071, Des Moines,
 IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2020 Building,
 2020. International Code Council, 4051
 West Flossmoor Road, Country Club Hills,
 IL 60478.
- 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.

ELECTRICAL SIGN CONTRACTOR 2014 (ENGLISH OR SPANISH)

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

- American Electrician's Handbook, 16th Edition. ISBN: 978-0071798808.
 McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004.
 Available at https://www.mheducation.com/higher ed/product/american-electricianshandbook-sixteenth-edition-crofthartwell/9780071798808.html
- NFPA 70 National Electrical Code,
 2014. ISBN: 9781455906727. National
 Fire Protection Association, 1
 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

ELECTRICAL SIGN CONTRACTOR 2017 (ENGLISH OR SPANISH)

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

- American Electrician's Handbook, 17th Edition. ISBN: 978-1260457919. McGraw Hill Publishing Inc., P.O. Box 182604, Columbus, OH 43272.
- NFPA 70 National Electric Code 2017, 2017. ISBN: 978-145591277-3. National Fire Protection
 Association, 1 Batterymarch Park, Quincy, MA
 02169-7471. Available at www.nfpa.org.

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	80
Time allowed (hours)	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	

- 2012 Study Guide for Structural Steel, 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/1 6672726 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.
- Concrete Finishing Level Two, 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 2020 Building, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Masonry Level Three, 2005. ISBN: 978-0-13-109169-6. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks. com.
- Study Guide for Commercial Carpentry,
 2nd Edition, 2014. ISBN: 978-1-269-78661-4. Pearson, 501 Boylston Street,
 Suite 900, Boston, MA 02116. Available at www.provbookstore.com

IRRIGATION SPRINKLER (ENGLISH OR SPANISH)

Install, repair, maintain, alter or extend all piping and sprinkler heads for the irrigation of lawns including incidental connections to a water pump (but not direct connection to potable water lines).

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest
Plan Reading & Estimating	6
Planning & Layout	8
Materials	6
Controls	6
Irrigation Installation	10
Cross Contamination & Backflow	5
Prevention	
Reclaimed Water	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 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 2020 Plumbing, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Turf Irrigation Manual The Complete <u>Guide to Landscape Irrigation Design</u>, 5th Ed., 1994. ISBN: 978-0963509604. Weathermatic, P.O. Box 180205, Dallas, TX 75218-0205. Available at www.amazon.com.

Journeyman Air Conditioning (English or Spanish)

Qualified to install, maintain, repair, alter, fabricate or extend air conditioning, refrigeration systems, piping vessels, warm air heating, low pressure boilers, ventilation systems, duct systems, insulation, and related appurtenances within a complete system unlimited in horsepower or tonnage.

Number of Questions	100
Time allowed (hours)	3
Subject Area	# Quest.
General Knowledge	22
Piping	10
Systems & Sizing	24
Equipment	11
Maintenance	28
Plan Reading	5
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 2020 Building, 2020.
 International Code Council, 4051 West
 Flossmoor Road, Country Club Hills, IL 60478.
- Florida Building Code 2020 Mechanical,
 2020. International Code Council, 4051 West
 Flossmoor Road, Country Club Hills, IL 60478.
- 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.

JOURNEYMAN ELECTRICIAN 2014 (ENGLISH OR SPANISH)

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

- American Electrician's Handbook, 16th Edition. ISBN: 978-0071798808.
 McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004.
 Available at https://www.mheducation.com/higher ed/product/american-electricianshandbook-sixteenth-edition-crofthartwell/9780071798808.html
- NFPA 70 National Electrical Code,
 2014. ISBN: 9781455906727. National
 Fire Protection Association, 1
 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

JOURNEYMAN ELECTRICIAN 2017 (ENGLISH OR SPANISH)

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

- American Electrician's Handbook, 17th Edition. ISBN: 978-1260457919. McGraw Hill Publishing Inc., P.O. Box 182604, Columbus, OH 43272.
- NFPA 70 National Electric Code 2017, 2017. ISBN: 978-145591277-3. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

JOURNEYMAN GENERAL MECHANICAL (ENGLISH OR SPANISH)

Journeyman General Mechanical: The term Journeyman shall mean any person who possesses the required skill, knowledge and experience, as evidenced by three (3) years' proven experience in the trade or craft, or education equivalent thereto, or a combination thereof, but not more than one-half (1/2) of such experience may be education equivalent, and who has passed an examination in his or her particular trade or craft and possesses a valid certificate of competency as a journeyman in such trade or craft. There shall be at least one (1) journeyman for every three (3) trainees on each construction or installation job site for which a permit is required, and which involves a trade in which journeyman are required and certified. It shall be the responsibility of the employing contractor, and the qualifying agent, to provide journeymen on each job site in accordance with this section, and failure to do so shall be a violation of this chapter, subject to the penalties provided herein, and provided under Section 1-5 of this Code. In addition, any work in the trade concerned on any such job site wherein journeymen are not provided in accordance with this section shall be stopped by the enforcing agency or administrative agency concerned until journeymen are so provided. Further, any person working at a trade which requires journeymen on the job site where no journeyman or master in the trade concerned is present shall be in violation of this chapter and subject to the penalties provided herein, and provided under Section 1-5 of this Code. A journeyman may only work in the employ of a contractor holding a certificate of competency in the field in which the journeyman is certified. Journeymen shall be required in the electrical, plumbing and mechanical trades. Journeymen are required to earn continuing education credit during each term the personal certificate of competency is valid as established in this

chapter and as required by the board through written rules or regulations commencing October 1, 1995.

Number of Questions	60
Time allowed (hours)	3
Subject Area	# Quest.
General Knowledge	9
Piping	6
Equipment	13
Maintenance	10
Plan Reading	4
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

- 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.

JOURNEYMAN PLUMBER (ENGLISH OR SPANISH)

Perform work under the supervision and in the employ of a state certified plumber or a locally licensed master plumber.

Number of Questions	80
Time allowed (hours)	3
Subject Area	# Quest.
Drain, Waste & Vent Systems	14
Fixtures & Fittings	6
General Knowledge	10
Isometrics & Plan Reading	10
Plumbing Math	5
Storm & Roof Drainage	8
Water Heaters	8
Water Supply and Distribution	12
Safety	7

References

- Florida Building Code 2020 Plumbing,
 2020. International Code Council, 4051
 West Flossmoor Road, Country Club Hills, IL
 60478.
- Plumbing Basics for Contractors, 3rd
 Edition, 2014. ISBN: 978-1-269-78624-9.
 Pearson, 501 Boylston Street, Suite 900,
 Boston, MA 02116. Available at www.provbookstore.com

MASTER AC (LIMITED) (ENGLISH OR SPANISH)

Tests a candidate's knowledge of the design, installation, maintenance, repair, fabrication, alteration, and extension of air conditioning, refrigeration, heating, ventilation, duct systems, piping vessels, insulation, and related appurtenances within a complete system, limited to 25 tons cooling and 500,000 BTU heating.

Number of Questions	100
Time allowed (hours)	4
Subject Area	# Quest.
General Knowledge	18
Piping	19
Systems & Sizing	20
Equipment	15
Maintenance	23
Plan Reading	5

- 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 2020 Building,
 2020. International Code Council, 4051
 West Flossmoor Road, Country Club Hills,
 IL 60478.
- Florida Building Code 2020 Energy
 Conservation, 2020. International Code
 Council, 4051 West Flossmoor Road,
 Country Club Hills, IL 60478.
- Florida Building Code 2020 Fuel Gas,
 2020. International Code Council, 4051

West Flossmoor Road, Country Club Hills, IL 60478.

Florida Building Code 2020 Mechanical, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

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
 <u>Calculations</u>, 2008. ISBN: 978-1892765383. Air Conditioning
 Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206.
 www.amazon.com
- Residential Load Calculations Manual
 J. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite
 300, Arlington, VA 22206. www.acca.org

MASTER AC (UNLIMITED) (ENGLISH OR SPANISH)

Tests a candidate's knowledge of the design, installation, maintenance, repair, fabrication, alteration & extension of Ac/refrigeration, piping vessels, warm air heating, low and high pressure boilers, ventilation systems, duct systems, insulation & related appurtenances within a complete system unlimited in horsepower or tonnage.

Number of Questions	100
Time allowed (hours)	4
Subject Area	# Quest.
Piping	18
Equipment	14
Maintenance	22
Plan Reading	7
Systems & Sizing	20
General Knowledge	19

- 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 2020 Building,
 2020. International Code Council, 4051
 West Flossmoor Road, Country Club Hills,
 IL 60478.
- Florida Building Code 2020 Energy
 Conservation, 2020. International Code
 Council, 4051 West Flossmoor Road,
 Country Club Hills, IL 60478.
- Florida Building Code 2020 Fuel Gas,
 2020. International Code Council, 4051

West Flossmoor Road, Country Club Hills, IL 60478.

Florida Building Code 2020 - Mechanical, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

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 <u>Calculations</u>, 2008. ISBN: 978-1892765383. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.amazon.com

Residential Load Calculations - Manual J. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.acca.org

MASTER ELECTRICIAN (ENGLISH OR SPANISH) 2014

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	75
Time allowed (hours)	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

American Electrician's Handbook, 16th Edition. ISBN: 978-0071798808.
 McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004.
 Available at https://www.mheducation.com/higher ed/product/american-electricians-handbook-sixteenth-edition-croft-hartwell/9780071798808.html

NFPA 70 - National Electrical Code, 2014. ISBN: 9781455906727. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

MASTER ELECTRICIAN (ENGLISH OR SPANISH) 2017

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

References

- American Electrician's Handbook, 17th
 Edition. ISBN: 978-1260457919. McGraw Hill
 Publishing Inc., P.O. Box 182604, Columbus,
 OH 43272.
- NFPA 70 National Electric Code 2017, 2017. ISBN: 978-145591277-3. 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	100
Time allowed (hours)	4
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 2020 Building, 2020.
 International Code Council, 4051 West
 Flossmoor Road, Country Club Hills, IL 60478.
- Florida Building Code 2020 Energy
 Conservation, 2020. International Code
 Council, 4051 West Flossmoor Road, Country
 Club Hills, IL 60478.
- Florida Building Code 2020 Fuel Gas, 2020.
 International Code Council, 4051 West
 Flossmoor Road, Country Club Hills, IL 60478.
- Florida Building Code 2020 Mechanical,
 2020. International Code Council, 4051 West
 Flossmoor Road, Country Club Hills, IL 60478.
- 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. www.amazon.com
- <u>Residential Load Calculations Manual J.</u> Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.acca.org

Master Plumber with Gas (English or Spanish)

Those who have the knowledge and skill to install, maintain, repair, alter or extend plumbing, sanitary drainage or storm drainage facilities, venting systems, public and private water supply systems, septic tanks, drainage and supply wells, swimming pool piping; irrigation systems; or solar heating water systems and all appurtenances, apparatus, or equipment used in connection therewith, including boilers and pressure process piping and including the installation of water and storm and sewer lines, water and sewer plants and substations; And who are qualified to install, service, modify, alter or repair apparatus, piping, vents, flues, tanks, tubing, appliances, equipment & L.P. and/or Natural gas systems, unlimited with regards to residential or commercial systems.

Number of Questions	100
Time allowed (hours)	3
Subject Area	# Quest.
Drain, Waste & Vent Systems	15
Fuel Gas Systems	15
Fixtures & Fittings	8
General Knowledge	10
Isometrics & Plan Reading	8
Plumbing Math	6
Safety	6
Storm & Roof Drainage	8
Water Heaters	12
Water Supply and Distribution	12

- Florida Building Code 2020 Fuel Gas, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Florida Building Code 2020 Plumbing, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

Plumbing Basics for Contractors, 3rd
 Edition, 2014. ISBN: 978-1-269-78624-9.
 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

- Basic Safety. ISBN: 9781323676189.
 Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- Florida Building Code 2020 Residential, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- 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
- Study Guide for Residential Carpentry & Repair, 2nd edition, 2014. ISBN: 978-1-269-78561-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- Or, if the book above is unavailable, it may be substituted by the following.
 Substitute references shown below...
- Residential Home Builder Study Guide.
 ISBN: 9781323550915. 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	50	
Time allowed (hours)	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.
- Builder's Guide to Swimming Pool Construction, 2005. ISBN: 978-1889892504. Builder's Book, Inc., 8001 Canoga Avenue, Canoga Park, CA 91304. Available at www.amazon.com.
- Florida Building Code 2020 Residential, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

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

- Florida Building Code 2020 Building, 2020. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Roofing Study Guide, 2018. ISBN: 978132388055. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116.
- Or, if the book above is unavailable, it may be substituted by the following.
 Substitute references shown below..
- Core 2015, 27202-13 Roofing
 Applications, & 27403-14 Advanced
 Roof Systems. Pearson, 501 Boylston
 Street, Suite 900, Boston, MA 02116.