SANTA ROSA 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

References

 AAF Guide to Aluminum Construction in High Wind <u>Areas</u>, 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.
- Basic Safety. 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

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	9
Roofing	4
Associated Trades	4
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
- 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.
- <u>Masonry Level Three</u>, 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

BUILDING CONTRACTOR (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

- 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/16672726 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.
- <u>Masonry Level Three</u>, 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

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

- 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/highered/product/americ an-electricians-handbook-sixteenth-edition-crofthartwell/9780071798808.html
- <u>Low Voltage Wiring: Security/Fire-Alarm Systems</u>, 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.
- <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 2014

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

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

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/highered/product/americ an-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.
- <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 2017

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

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

References

 <u>American Electrician's Handbook</u>, 16th Edition. ISBN: 978-0071798808. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at

https://www.mheducation.com/highered/product/americ an-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 Electric Code 2017, 2017. ISBN: 978-145591277-3. 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

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	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: 1-93423492-3 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.

BUSINESS AND LAW (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	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

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	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

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- <u>Florida Building Code 2020 Building</u>, 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.

DEMOLITION

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 multistory 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

- <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.
- 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 2020 Building, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- 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.
- Masonry Level One, 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 <u>Demolition Operations</u>. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

DEMOLITION (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 multistory 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 2020 Building, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- 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.
- Masonry Level One, 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.

ELECTRICAL SIGN CONTRACTOR 2014

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/highered/product/americ an-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.

GENERAL CONTRACTOR

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	81
Time allowed (hours)	3
Subject Area	# Quest.
Plan Reading & Estimating	11
Sitework	5
Concrete	12
Masonry	8
Structural Steel	10
Carpentry & Metal Framing	12
Roofing	4
Associated Trades	2
Interior Finishes	5
Exterior Finishes	5
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>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.
- 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

GENERAL CONTRACTOR (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

 <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>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.
- 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.
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- 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

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	100
Time allowed (hours)	4
Subject Area	# Quest.
General Knowledge	19
Piping	19
Systems & Sizing	19
Equipment	19
Maintenance	19
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 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.

IRRIGATION SPRINKLER

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 Prevention	5
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: 978-1-60983-689-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- Turf Irrigation Manual The Complete Guide to Landscape Irrigation Design, 5th Ed., 1994. ISBN: 978-0963509604. Weathermatic, P.O. Box 180205, Dallas, TX 75218-0205. Available at www.amazon.com.

IRRIGATION SPRINKLER (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	6
Planning & Layout	8
Materials	6
Controls	6
Irrigation Installation	10
Cross Contamination & Backflow Prevention	5
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.

- <u>Florida Building Code 2020 Plumbing</u>, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Turf Irrigation Manual The Complete Guide to
 Landscape Irrigation Design, 5th Ed., 1994. ISBN:
 978-0963509604. Weathermatic, P.O. Box 180205,
 Dallas, TX 75218-0205. Available at www.amazon.com.

JOURNEYMAN ELECTRICIAN (SPANISH) 2014

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/highered/product/americ
 - https://www.mheducation.com/highered/product/americ an-electricians-handbook-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 2014

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

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/highered/product/americ

https://www.mheducation.com/highered/product/americ an-electricians-handbook-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 2014 (SPANISH)

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Time allowed (hours)	3
Subject Area	# Quest.
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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

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 - https://www.mheducation.com/highered/product/americ an-electricians-handbook-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

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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/highered/product/american-electricians-handbook-sixteenth-edition-croft-hartwell/9780071798808.html
- 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 PLUMBER

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 2017 Plumbing, 2017. ISBN: 978-1-60983-689-4. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- 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

JOURNEYMAN PLUMBER (SPANISH)

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Number of Questions	80
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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

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- 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

LOW VOLTAGE (SPANISH) 2014

Qualified and certified to install, fabricate, erect, repair, alter, add to or change any electrical wiring, fixtures, appliances, thermostats, apparatus, raceways and conduit, or any part thereof, not to exceed ninety-eight (98) volts, which generates, transmits, transforms or utilizes electrical energy, when those items are for the purpose of transmitting any form of light, heat or communications, including but not limited to telephone, radio, computer and data. A low voltage specialty electrical contractor may connect to an existing separate circuit of approved capacity, which is terminated in an approved outlet, junction box or fused disconnect within six (6) feet of the equipment to be energized.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
General Electrical Knowledge	12
Wiring & Protection	4
Wiring Methods & Materials	10
Equipment for General Use	6
Special Occupancies	6
Special Equipment	3
Special Conditions	4
Communication Systems	5

- 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/highered/product/americ an-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.
- Understanding and Servicing Alarm Systems, 3rd Ed., 1999. ISBN: 978-0750672061. Butterworth-Heinemann, 225 Wildwood Ave., Woburn, MA 01801. Available at www.amazon.com.

LOW VOLTAGE 2014

Qualified and certified to install, fabricate, erect, repair, alter, add to or change any electrical wiring, fixtures, appliances, thermostats, apparatus, raceways and conduit, or any part thereof, not to exceed ninety-eight (98) volts, which generates, transmits, transforms or utilizes electrical energy, when those items are for the purpose of transmitting any form of light, heat or communications, including but not limited to telephone, radio, computer and data. A low voltage specialty electrical contractor may connect to an existing separate circuit of approved capacity, which is terminated in an approved outlet, junction box or fused disconnect within six (6) feet of the equipment to be energized.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
General Electrical Knowledge	12
Wiring & Protection	4
Wiring Methods & Materials	10
Equipment for General Use	6
Special Occupancies	6
Special Equipment	3
Special Conditions	4
Communication Systems	5

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- American Electrician's Handbook, 16th Edition.
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- 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.

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	75
Time allowed (hours)	3
Subject Area	# Quest
Carpentry	10
Florida Building Code application to Structures	Marine10
Piles	10
Plan Reading & Estimating	6
Safety	9
Sitework	10
Structures	10
Concrete and Reinforcement	10

- <u>Code of Federal Regulations, Title 29, Part 1926,</u> 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/Vol2_SDM.pdf Candidate printed versions allowed if exam is open book.
- Florida Building Code 2020 Building, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- 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-book-detail.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/#

MASTER AC (LIMITED)

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

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 AC (LIMITED) (SPANISH)

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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

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- 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.
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 ISBN: 978-1892765383. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.amazon.com
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MASTER AC (UNLIMITED)

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

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.
- <u>Florida Building Code 2020 Fuel Gas</u>, 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.
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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

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MASTER ELECTRICIAN (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/highered/product/americ an-electricians-handbook-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.

MASTER ELECTRICIAN (SPANISH) 2017

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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
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hartwell/9780071798808.html

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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
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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
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 - an-electricians-handbook-sixteenth-edition-crofthartwell/9780071798808.html
- 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

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- Florida Building Code 2020 Fuel Gas, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
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- Residential Load Calculations Manual J. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.acca.org

MASTER PLUMBER WITH GAS

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

MASTER PLUMBER WITH GAS (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

References

- 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

MASTER RESIDENTIAL ELECTRICAL 2014

Tests a candidate's knowledge of the design, plan, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment for light, heat, and power in one-, two-, and three-family dwellings.

Number of Questions	65
Time allowed (hours)	3
Subject Area	# Quest.
General Electrical Knowledge	16
Wiring & Protection	13
Wiring Methods & Materials	10
Equipment for General Use	8
Special Occupancies	2
Special Equipment	4
Special Conditions	3
Communication Systems	5
Motors & Controls	4

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/highered/product/americ
 - an-electricians-handbook-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.

Master Sign Electrician 2014

Tests a candidate's knowledge of the design, plan, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment associated with electric signs. The branch circuit supplying power to the sign shall originate from an existing disconnect or power outlet.

Number of Questions	40
Time allowed (hours)	2
Subject Area	# Quest.
Electrical Signs & Outline Lighting	16
Grounding & Bonding	4

General Electrical Knowledge	6
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/highered/product/americ an-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 SIGN ELECTRICIAN 2017

Tests a candidate's knowledge of the design, plan, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment associated with electric signs. The branch circuit supplying power to the sign shall originate from an existing

Number of Questions	40
Time allowed (hours)	2
Subject Area	# Quest.
Electrical Signs & Outline Lighting	16
General Electrical Knowledge	6
Grounding & Bonding	4
Motors & Controls	3
Transformers	3
Wiring & Protection	4
Wiring Methods & Materials	4

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/highered/product/americ an-electricians-handbook-sixteenth-edition-croft-hartwell/9780071798808.html

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.

METAL AWNING & STORM SHUTTER CONTRACTOR

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 self-supporting, 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.
Plan Reading & Estimating	7
Concrete and Reinforcement	6
Metal Storm Panel Shutters	6
Wood Storm Shutters	4
Installation & Anchorage	16
Building and Municipal Codes	7
Safety	4

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall,
 P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.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.
- Florida Building Code 2020 Building, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Hurricane Shutter Designs. APA The Engineered Wood Association, 7011 S. 19th ST, Tacoma, WA 98466. Available at www.apawood.org Candidate's printed versions, Form T450 is allowed if exam is open book.

METAL AWNING & STORM SHUTTER CONTRACTOR (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 self-supporting, 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	49
Time allowed (hours)	2
Subject Area	# Ques
Plan Reading & Estimating	8
Concrete and Reinforcement	7
Metal Storm Panel Shutters	6
Wood Storm Shutters	5
Installation & Anchorage	13
Building and Municipal Codes	7
Safety	3

References

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall,
 P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.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.
- Florida Building Code 2020 Building, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.
- Hurricane Shutter Designs. APA The Engineered Wood Association, 7011 S. 19th ST, Tacoma, WA 98466. Available at www.apawood.org Candidate's printed versions, Form T450 is allowed if exam is open book.

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

- <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 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 <u>substituted by the following</u>. 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

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	51
Time allowed (hours)	3
Subject Area	# Quest.
Plan Reading & Estimating	5
Site Preparation, Excavation and Backfilling	6
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

- <u>Basic Safety</u>. 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.
- <u>Florida Building Code 2020 Residential</u>, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

RESIDENTIAL SWIMMING POOL (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

- <u>Basic Safety</u>. 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 2020 Residential, 2020.
 International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

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

- Florida Building Code 2020 Building, 2020.

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

SIDING, WINDOWS & DOORS

Tests a candidate's knowledge of siding, window and door installation including vinyl, wood or aluminum siding, soffit, fascia, gutters and all types of windows and doors. This includes the work necessary to prepare or repair the substrate to accomplish proper installation. Does not include any structural alterations.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
Plan Reading & Estimating	6
Building Materials, Fasteners & Adhesives	4
Windows & Exterior Doors	6
Thermal & Moisture Protection	8
Exterior Finishing	15
Doors & Hardware	6
Safety	5

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
- Study Guide for Siding & Finish Carpentry, 2012.
 ISBN: 978-1-256-61081-6. Pearson, 501 Boylston
 Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

SIGN CONTRACTOR (NON-ELECTRIC)

Tests a candidate's knowledge of installation, repair, and modification of non-electrical signs.

Number of Questions	49
Time allowed (hours)	2
Subject Area	# Quest.
Plan Reading	5
Concrete and Reinforcement	9
Wood	6
Structural Steel	7
Welding	7
Non-Electric Sign	8
Safety	7

- Carpentry Level One, Carpentry Fundamentals 2013, 2013. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Carpentry Level Three 2014</u>, 2014. ISBN: 0133823059.
 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.
- 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.

UNDERGROUND UTILITIES

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

Number of Questions	50
Time allowed (hours)	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

- <u>Basic Safety</u>. 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/
- Study Guide for Utilities Contractors, 2nd edition, 2014. ISBN: 978-1-269-78571-6. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com