



CERTIFIED
NARI PROFESSIONAL

CKBR

NARI
Certified Kitchen and Bath
Remodeler
Program Manual

Use to prepare for the CKBR Certification

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NATIONAL ASSOCIATION OF THE REMODELING INDUSTRY

Welcome, and congratulations on taking your first step toward earning NARI's Certified Kitchen and Bath Remodeler (CKBR) designation. The National Association of the Remodeling Industry (NARI) has established the Certified Kitchen and Bath Remodeler (CKBR) designation to promote the highest standards of remodeling through credentialing of remodeling professionals. By choosing to review this handbook, you have taken the first step toward joining those who will distinguish themselves by earning the CKBR designation/credential.

This handbook summarizes key aspects of the CKBR program, and is intended to help you understand the process of certification and recertification. The handbook is a useful reference as you:

- Make your decision whether to pursue the CKBR designation/credential
- Develop your course of study to meet the eligibility requirements of the CKBR designation/credential
- Complete the CKBR application
- Seek to maintain (or provide yourself another opportunity to earn) the CKBR designation/credential

The Certified Kitchen and Bath Remodeler program reflects the current state of the industry and strives to be current with the existing Building Code (IRC), accepted business practices, and standard building practices. No single printed document can address every potential question, process, policy detail, or future change. You are encouraged to use this handbook as a supplement to the program information provided in your CKBR Study Group as well as information provided by NARI's certification staff, who may be contacted at (847) 298-9200 or certification@nari.org.

The NARI Certification Board

The NARI Certification Board, the certifying agency of the National Association of the Remodeling Industry, is responsible for the governance of the CKBR program, and all policy and standards related to the CKBR designation. This program is administered by the NARI staff, and they are responsible for implementing these policies. This structure allows the NARI Certification Board to ensure consistency and integrity concerning policy matters related to certification.

The NARI Certification Board issues certifications to individuals who successfully meet its standards. These individuals may present themselves to the public as Certified Kitchen and Bath Remodelers.

What is the purpose of the CKBR designation?

The purpose of the CKBR certification program is to:

- Establish the body of knowledge for Kitchen and Bath Remodeling Professionals
- Assess the level of knowledge demonstrated by Kitchen and Bath Remodeling Professionals in a valid and reliable manner
- Encourage professional growth in the field of remodeling
- Formally recognize individuals who meet the requirements set by the NARI Certification Board
- Serve the public by encouraging quality remodeling practices

The NARI Certification Board, with assistance and advice from professionals in relevant fields, has developed a credential that will recognize an accepted level of expertise in the profession with the goal of improving professional standards in remodeling. However, it is important to keep in mind that - no certification program can guarantee professional competence. In addition, given the frequent changes in recommended practice and technology, the NARI Certification Board cannot warrant that the test materials will, at all times, reflect the most current state of the art. The NARI Certification Board welcomes constructive comments and suggestions from the public and members of the profession.

What are the benefits of certification?

<p>The benefits of certification for kitchen & bath remodeling professionals include:</p> <ul style="list-style-type: none">• Verification of your knowledge by an independent organization – a way to demonstrate that you have the knowledge needed for the job• Professional growth and development• Enhanced job opportunities	<p>The benefits of certification for employers include:</p> <ul style="list-style-type: none">• Increased productivity• Less training time needed to bring employees “up to speed”• Competitive advantage in promoting services to clients
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PREPARING FOR THE TEST

Who can take the exam?

You are eligible to sit for the CKBR exam if you meet the following requirements:

- You are employed by or own a firm engaged in remodeling kitchens and bathrooms
- Adhere to NARI’s Standards of Practice and Code of Ethics
- Have a minimum of five years continuous experience in the remodeling industry
- Have completed 4 kitchens and/or bathrooms per year
- Completed 16 hours of continuing education
- Successfully completed a comprehensive application that details your background and experience
- Submit all required application materials and fees

*All experience and coursework must be completed at the time the application is submitted.

How much does it cost?

The certification fee is \$500 for NARI members and \$700 for non-members, and must accompany the application. The CKBR application documents your qualifying experience, technical competence, professional development activities, and attestation/commitment to uphold NARI's Code of Ethics. All experience and coursework must be completed at the time the application is submitted. Applications should/must be submitted no later than three months prior to the exam date.

A nonrefundable fee of \$125 is included in the application fee. This \$125 charge is incurred upon receipt of your application by NARI. If for some reason you fail to meet the eligibility requirements at the time of application, your application and documentation will be returned to you. Your fee will be refunded, less the \$125 nonrefundable portion. Once your application has been accepted no part of the certification fee may be refunded.

How do I apply?

You must complete the current Certified Kitchen and Bath Remodeler application. You should allow at least ten (10) days for delivery if using first class mail. Applications received less than 30 days before your exam will be rejected and your fee will be refunded less the \$125 nonrefundable portion.

When your application has been reviewed and accepted, you will receive an acknowledgement by email and your name will be entered on the roster of eligible candidates. Successful applicants are qualified to take the exam once during the next 24 months. If unsuccessful on the first attempt, subsequent examinations taken within this 2-year window are subject to a retest fee of \$50 per test. You may re-take the exam two times during the 2-year window from your original application. If you are not successful at passing the exam within two (2) years of your application date and wish to sit for the exam, you will be required to submit a new application and pay the required certification fee in effect at the time of reapplication.

When and where is the test given?

Exams are typically conducted at participating NARI Chapters. Chapters may charge an additional proctor fee to administer the exam. Please note that examination locations are subject to the availability of facilities and minimum enrollment numbers. If you are not able to take a scheduled examination, contact NARI for additional guidance on arranging an individual proctor.

The NARI Certification Board has established fixed exam periods for all NARI Certifications. These dates apply regardless of where the prep (study group) class was conducted. NARI National uses these dates as a planning tool when establishing certification study groups and advises chapter to do the same in their planning. NARI National encourages members to pursue certifications as appropriate to the member's role in the industry.

Visit <http://www.nari.org/industry/development/prep-class-and-exam-date-summary/> for the most current list of test dates.

How are special testing arrangements made?

The NARI Certification Board will make reasonable efforts to accommodate eligible candidates who require special arrangements to take the exam. Candidates who request special accommodations must make their request in writing at least 60 days in advance of the test date. Documentation should be in the form of a letter on the official letterhead of a licensed or certified professional qualified to diagnose and treat special conditions. A description of the special accommodation(s) requested should be included. Your request, with the supporting documentation, will be reviewed to determine if the accommodation will be granted. If approved, you and your exam proctor will be notified. The special accommodations and

auxiliary aids and services must not present an undue burden to the NARI Certification Board and must not fundamentally alter the measurement of the knowledge the exam is intended to test.

What is the format for the test?

The exam is conducted in a single, four-hour session. The test will have 200 multiple-choice questions. Each question will have four options or choices, only one of which is the best answer. You are to select the correct or best answer from these options.

What do I need to know for the test?

The exam content outline organizes the knowledge and tasks deemed essential to kitchen and bath remodeling into five broad knowledge domain areas, which are: Basic Business, Materials, Layout, Construction and Trades. These domains are further divided as shown below.

The CKBR Exam Content Outline

The composition of the exam is guided by on the job tasks performed and knowledge needed by kitchen and bath remodelers.

The following lists the domains and the approximate percentage of the exam devoted to each one.

Basic Business

22%

Standards of Practice

- Explain the purpose of the NARI Standards of Practice
- Describe the layout and composition standards for visual and oral advertisements
- Explain the size and specification guidelines when quoting a price in an advertisement
- Define "Bait n' Switch" advertising and selling and explain the practices that should not be used or are not permitted.
- Explain what disclosures must be included in an advertisement in order to use the terms "warranty" or "guarantee."
- Describe how installation charges should be disclosed in advertising
- List and explain prohibited sales practices when selling a product to a client
- Explain misrepresentation in contractual documents, the "Cooling-off Notice", and the Waiver of Lien
- Explain how to handle customer complaints
- List and explain third-party dispute settlement mechanisms
- Explain the NARI Code of Ethics

Basic Business

- List the activities of the company the manager is responsible for in planning and directing
- List the five major principles of business management
- List the basic accounting and financial principles
- Explain the benefits of the Balance Sheet and the Statement of Income, or Profit and Loss Statement
- Define and explain overhead and job costs
- Explain how to avoid tax penalties
- Describe the actions that must be taken to manage or avoid risk
- Describe Workers' Compensation Insurance
- List and describe other insurance policies a business owner might or should have
- List and describe the processes conducted or reviewed in order to create a marketing strategy

- Fully describe the sales proposal process, and list the steps the contractor must take before writing a proposal for a client.
- List and correctly utilize standard business formulas
- List and describe the three general levels of integration of the remodeler and designer
- Discuss the advantages and disadvantages of in-house design
- Discuss the advantages and disadvantages of sub-contracting the design function of a project
- Discuss the steps you need to take to make the transition to a design profit center
- Discuss different methods of selling design-build projects
- List different places to go for educational opportunities
- Explain the importance of continuing education
- Explain the importance of networking to your company

Project Management

- Discuss the importance of the pre-construction conference
- List and explain what must be accomplished at the pre-construction conference
- Discuss the different items that should be in your file box and organizational binders
- Describe the different kinds of lists you should make to keep organized
- Explain the importance of organizing and maintaining paper work
- Describe the materials list and the ordering list and explain their importance
- Explain the function and importance of time cards
- Discuss the importance of skilled scheduling
- Discuss how to avoid scheduling disorders and how to schedule effectively
- List and explain ways to handle logistical problems that come up during a project, despite effective scheduling
- List and explain the different types of inspections
- Define a change order and explain how to handle one
- Explain the punch list

Materials

11 %

- Discuss the challenges associated with choosing materials for a kitchen or bathroom remodel
- Define face frame cabinet construction and discuss the different door mounting options
- Define frameless cabinet construction and discuss the different door mounting options
- Discuss the components of frame and frameless cabinet construction
- Discuss cabinet door styles and different methods for finishing cabinets
- List the different classes of cabinets and discuss the differences between them
- Explain the National Kitchen and Bath Association's generic cabinet coding system
- Discuss the considerations when choosing a cooktop
- Discuss the different types of refrigerators clients can choose
- Describe the other appliances needed in a kitchen, such as the food disposal, dishwasher, and trash compactor
- List the different types of countertops used in kitchens, and discuss the advantages and disadvantages of each one
- Describe the different types of tile used for a glazed ceramic tile countertop
- Describe the natural stone materials used for countertops
- List the types of flooring used in kitchens and bathrooms and discuss the differences between them, taking into consideration high traffic and moisture
- List and describe the different types of plumbing fixtures used in the bathroom
- List the different types of lavatories and explain how to install them
- Describe the different types of kitchen sinks
- Explain different ways of mounting a kitchen sink to a countertop

Applicable as of July 1, 2017. All policies, procedures, and fees are subject to change.

- Discuss the different materials used in kitchen sinks
- Discuss the NKBA planning tips for kitchen sinks
- Explain the different ways toilets are built
- Discuss the different types of bathtubs and the materials used to construct them
- Discuss the different categories of valves used to prevent the scalding effect in the shower supply
- List and describe the different types of window styles, both basic styles and special designs
- Explain the different types of exterior doors and how they are installed
- Describe the different types and materials of interior doors

Layout

17%

Kitchen Layout

- List the considerations involved in kitchen layout
- Discuss space planning techniques and dimensions for kitchen layout
- List four keys to kitchen layout
- Define what a work center is and list the five major work centers of the kitchen
- Explain the correct dimensions and requirements for a work center
- Discuss different configurations for work triangles
- Explain seating area dimensions
- Discuss wall and base cabinet frontage minimum dimensions for different sized kitchens
- Discuss the storage items necessary to improve the accessibility and functionality of a kitchen
- Discuss drawer or shelf roll out frontage and counter frontage requirements
- Explain the considerations for safety and convenience in a kitchen
- Define the different types of kitchen layouts and discuss them in detail
- Explain issues of concern in all kitchen layouts
- Explain how to make a refrigerator look built-in and the considerations that need to be taken when doing so
- Explain the different types of triangles based on the relationship between the sides and the degrees of the angle of the triangle
- Explain how to use the trigonometric formula

Bath Layout

- Discuss the minimum dimensions necessary for good bathroom space planning, according to the NKBA
- Explain the requirements for making the bathroom safe
- Discuss different ways to make the bathroom comfortable and convenient
- Describe the standard dimensions for bathroom fixtures
- Discuss how to properly ventilate a bathroom
- Explain the formulas used to calculate the CFM exhaust ratings for the bathroom
- Discuss the ADA Accessibility Guidelines and explain why you should be familiar with them
- Define Universal Design and discuss its impact on remodeling
- Define and discuss Accessible, Adaptable, Barrier Free, and Intergenerational or Lifespan Design
- Discuss the dimension guidelines for spaces where wheel-chair bound people reside

Plan Interpretation

- Define the different types of drawings used for a kitchen or bathroom remodel
- List and discuss the different special drawings and plans needed for a remodel job
- Discuss the different symbols used in project drawings and be able to identify them
- List and explain the information that must be on a complete set of plans
- Explain why symbols and abbreviations must be consistent on plans
- Define CAD and explain how it is used

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- Discuss how the use of CAD can enhance your business and layout process
- Create a basic CAD layout of a kitchen or bath

Construction

18.5%

Demolition

- Describe what is involved in demolition
- Describe what type of fire extinguishers must be on a job site
- Explain why debris should be kept clear of the work site
- List what asbestos was used for and explain why it is dangerous
- Describe what precautions must be taken when removing asbestos
- Define what Material Safety Data Sheets (MSDS) are, and explain what questions they answer
- Explain how to proceed safely around electrical circuits, junction boxes, and hidden wires
- Describe how to do work on the ceiling if you need to tear sections out
- Explain how to work on floors if you are leaving them intact to refinish or if you are tearing out the old surfaces
- Define what shoring is and what it is not
- Describe how to build shoring while doing a remodel project
- Explain how to do work on interior and exterior walls
- Describe the dangers of lead
- Discuss how to reduce the risk from lead-based paint
- Describe the requirements of the EPA's RRP program
- Define mold and explain its dangers
- Explain how to clean up mold
- List 10 things you should know about mold

Structural Adjustments

- Describe the steps taken to construct a new wall
- Explain how to add blocking
- Describe the layout for framing a wall
- Explain the function of a header
- Discuss how to identify a load-bearing wall in single story and two-story construction
- Explain how to decide what type of beam (or header) will be required when removing a load-bearing partition
- Discuss the two methods of installing a beam (or header), the exposed beam and the hidden beam
- Explain how to tie in a new addition with the old parts of the house
- Discuss what considerations must be made when installing a new door, and explain how a door is installed
- Explain how to install a window
- Discuss what considerations should be made when working on a slab foundation.
- Discuss what floor support considerations should be made when installing large pieces of equipment

Cabinet Installation

- Discuss what to consider when preparing to install cabinets and countertops
- Describe a procedure for taking measurements for cabinet installation preparation
- Explain how to locate the high point on the floor and how this will help when installing cabinets
- Explain in detail how to locate the cabinet positions on the wall
- Explain how to locate and mark off studs
- Discuss how to account for walls that are not plumb and corners that are not exactly 90°

- Describe how to install all types of base cabinets
- Describe how to install all wall cabinets
- Discuss how to install cabinet doors
- Discuss how to cut and install countertops

Finish Work

- Discuss the safety considerations when installing tile
- Discuss guidelines for setting tile
- Discuss the importance of a quality substrate
- List and describe the five categories of paint types
- Explain the process of installing trim, and discuss how trim helps complete your project
- Discuss the safety considerations when installing a built-in oven
- Explain how to install a cabinet mounted microwave and a microwave mounted above the cooktop
- Describe the advantages of drop-in cooktops, and explain how to install
- Define downdraft ventilation and updraft ventilation and discuss what to consider before installation
- Explain the differences between a free standing and a slide-in range, and discuss installation requirements for both
- Discuss considerations when putting a refrigerator in a kitchen
- Discuss the advantages of a wall oven
- Discuss what to consider when installing a dishwasher
- Discuss the punch list and how to use it
- Define quality control, and explain its importance to your company and your reputation
- List activities where quality control should be implemented
- Discuss the importance of referrals

Trades

31%

Electrical Systems

- Define voltage, resistance, current, power, and load, and explain the relationship they have to each other
- Define Ohms Law and discuss how the formula works
- Define the power computation formula and explain how it works
- Define and explain the two service methods: Overhead Drops and Underground Services
- Explain the 3-foot clearance rule applied to service panels
- Discuss the rules for meter location and mounting requirements
- Explain how to determine the service capacity of a building
- Discuss service conductor capacity
- Explain service adequacy for today's homes and what is required to compute it
- Explain the different wiring systems used in houses, and discuss the advantages and disadvantages of each
- Discuss the use of and necessity for junction boxes
- Discuss what to do when installing wiring and cable in wet environments
- Define a ground and grounding terminology
- Discuss the importance of proper bonding in the service panel
- Explain how a GFCI works
- List where GFCIs are required
- Discuss the problems that can occur with a GFCI and explain how to fix them
- Explain what an AFCI is and how it works

- Discuss where the main power panel can and cannot be placed and what problems need to be corrected in regards to old or altered panels
- Identify the requirements for circuit breakers
- Discuss where electrical receptacles are required
- Discuss the receptacle, cord, and circuit requirements for built-in appliances
- Explain how to evaluate load requirements
- Discuss the following common wiring methods:
 - Rigid Metal Conduit
 - EMT Conduit
 - Armored Cable (AC)
 - Flexible Metal Conduit (FMC)
 - Non-Metallic Conduit
 - Romex

Lighting

- Define the different types of lighting that can be placed in a room
- Identify and explain the different types of lighting fixtures
- Describe the different types of lamps used in homes
- Discuss the advantages and disadvantages of different lamp types
- Define correlated color temperature (CCT) and color rendering index (CRI)
- Discuss how best to light a kitchen and a bathroom
- Discuss how to install lighting under cabinets and the considerations you need to make when doing so
- Define Uniform Down-lighting and explain how it works
- Define Non-uniform Down-lighting and explain how it works
- Explain the correct installation of light fixtures for task lighting
- Explain the correct position of accent lights for flat artwork and three-dimensional objects

Plumbing

- List and describe the three systems in residential plumbing installations
- Explain the different components of the water supply system
- Discuss how to plan a water supply system and what needs to be considered when doing so
- Identify adequate pipe sizes for one- and two-family homes of average size
- Discuss what factors must be considered when choosing piping material
- List and describe the different materials used for piping
- Discuss the principal objectives for designing a hot water system
- Describe the qualities of fixtures that conform to high design standards
- Discuss the installation considerations of plumbing fixtures
- Explain the system layout for the drain, waste, and vent system (DWV)
- Discuss consideration applied to routing drain piping
- List and explain the trap requirements, and describe how traps can lose their water seals
- Define vent piping; discuss how it works; and explain its installation guidelines
- Discuss where to terminate vents
- Explain how to determine the size of pipes for a DWV system for different fixtures
- Discuss the different types of material that can be used for pipes in a DWV system
- Explain how to use pipe support for different types of pipes
- Explain what roughing-in is and identify the common dimensions for bathroom and kitchen fixtures
- Explain what a septic tank is and how it works
- Discuss gray water recycling systems and its use

- Describe the different types of gas systems
- List the two factors needed to size the gas main and branch lines for a building
- Define a BTU and explain how to use BTUs to calculate the demand for a gas line in cubic feet per hour (cfh)
- List the different types of materials used for gas piping

Mechanical Systems: Heating/Air-Conditioning

- Discuss where best to place a furnace in a home, and explain how placing it in the wrong place can cause the furnace to fail
- Discuss the best areas to place a return air grill in different areas of the home
- List the three possible heating and cooling situations, and explain the layouts associated with them
- Discuss where it is best to place registers or diffusers for an air system
- Explain the steps required to balance an air system
- Discuss how to calculate the correct size of heating equipment
- Explain how steam systems work and how they are different from other heating systems
- Discuss boiler and furnace efficiency
- Discuss the advantages and disadvantages of electric heating systems
- Describe what a heat pump is, and discuss its advantages and disadvantages
- Define the Coefficient of Performance (COP)
- Discuss the disadvantages of humidifiers
- Discuss the different types of air filtering systems
- Explain what hydronic heating is
- Explain the two types of piping systems used for hot water heating systems and steam heating systems
- Describe the different types of controls needed for different heating systems
- Define the Seasonal Energy Efficiency Ratio (SEER), and explain what SEER to look for when choosing an air conditioner
- Explain how air conditioning works in houses heated by hydronic systems
- Explain how to determine the size of cooling systems
- Describe how relative humidity, air movement, and radiation affect human comfort
- Discuss how water use rate and the recovery rate of the heat source affect the tank size of a storage-type water heater
- Discuss how water usage affects the efficiency of water heaters
- Explain what an instantaneous water heater is and how it works

How do I prepare for the test?

You may choose to study on your own or you may decide to join a study group at your local chapter to gain a better understanding of one or more content areas. Find a study group, contact your chapter representative or visit <http://www.nari.org/certify/index.asp> for a current list of virtual study group/course information.

When planning your studying, you should also think about what percentage of the test questions will cover each major content area. Decide which resources will better help you prepare for the test. The references listed in the authoritative literature below may be helpful when you are reviewing the content areas included on the test.

The CKBR Authoritative Literature

The following is the CKBR Authoritative Literature, a list of references that may be helpful to review for the test. The list is intended for use as a study aid only. The NARI Certification Board does not intend the list to imply endorsement of these specific references, nor are the test questions necessarily limited to these sources. The NARI Certification Board reviews the Authoritative Literature on a biannual basis. This list was updated in January 2012.

Certified Kitchen and Bath Remodeler (CKBR) References

These two books are **recommended** for preparation for the Certification Examination and can be purchased from amazon.com or from NARI National while supplies last.

1. Smart Business for Contractors, by Jim Kramon, Taunton Press, Inc., Newtown, CT, 2007.
2. Run Your Business So It Doesn't Run You, by Linda Leigh Frances, Borah Press, Redwood Valley, CA, 2000.

Additional Helpful Resources

These sources provided additional information for those areas in which you may have minimal experience.

Current edition of the International Residential Code for One-and Two-Family Dwellings, Published by ICC.

Renovation 3rd Edition, by Michael W. Litchfield, Sterling Publishing Co. New York. 2005.

Residential Wiring to the (YEAR) NEC, by Jeff Markell, Craftsman Book Company, Carlsbad, CA. Or equivalent manual.

Professional Kitchen Design, by Murray Shaw, Craftsman Book Company, Carlsbad, CA. 1995.

Beyond the Basics: Advanced Kitchen Design, by Ellen Cheever, CKD, CBD, National Kitchen and Bath Association, Hackettstown, NJ. 1992.

Universal Kitchen and Bathroom Planning, by Mary Jo Peterson, CKD, CBD. McGraw Hill. 1998.

Residential & Light Construction Standards. 2nd Edition, by RS Means, Kingston, MA. 2002.

Plumber's Handbook, by Howard C. Massey. Craftsman Book Company, Carlsbad, CA. 1998.

The resources listed above may be found at the following sites:

<http://www.taunton.com/index.asp>

<http://www.craftsman-book.com/>

<http://www.go2atp.com/>

<http://www.jlconline.com/cgi-bin/jlconline.storefront>

<http://www.bni-books.com/>

<http://www.bn.com/>

<http://www.amazon.com>

TAKING THE TEST

What are the requirements during the test?

You should arrive at the testing site approximately thirty (30) minutes to one (1) hour prior to the test to allow sufficient time for you to check-in and locate your seat. Late arrivals cannot be admitted to the test. Be prepared to provide a photo ID to the test administrator as part of the registration process.

You may not use devices with memory capabilities. Audible beepers, cellular phones, books, or papers will not be allowed in the testing room. Note taking is prohibited during the test. Paper for conducting calculations will be provided by the test administrator and will be collected at the completion of the exam period.

Unauthorized visitors will not be allowed at the test site. Observers approved by the NARI Certification Board may, however, be present during the testing session.

Only water will be allowed in the testing room. All other materials, food, and beverages are prohibited.

Before you take the exam, you will be asked to sign the following statement:

“Due to the confidential nature of this test, I agree that I will not copy or retain test questions or transmit them in any form to any other person or organization.” If you do not sign this statement, you will be dismissed from the testing center or your test results may be invalidated. The theft or attempted theft of the test or copying or disclosure of test questions is punishable by law.

Sample Examination Questions

The CKBR examination is a knowledge-based, paper-and-pencil examination consisting of 200 multiple-choice questions administered in a single four-hour period. The following questions have been selected for inclusion in candidate materials as sample questions. While these sample questions are intended to give candidates a better sense of the CKBR questions, the actual examination may include these and other similar types of questions in varying proportions. The answers to these sample questions are given on the last page of this handbook.

1. Which of the following features are required on all showers?
 - A. Folding shower seats
 - B. Instant steam generator
 - C. Chlorine filtrating showerheads
 - D. Thermostatic or pressure balance-mixing valves

2. When installing cabinets on brick or concrete walls you should always
 - A. nail the cabinets to the wall.
 - B. seal the backs of the cabinets.
 - C. use hangers to install cabinets.
 - D. install furring strips to mount cabinets to.

3. NEC requires all new branch circuits supplying 125V 15 and 20 Amp outlets in bedrooms to be protected by a listed
 - A. GFCI outlets.
 - B. GFCI breakers.

- C. AFCI breakers.
 - D. 25 Amp breakers.
4. Which of the following items can be used to improve accessibility and functionality of a kitchen?
- A. Speaker phone
 - B. Toe kick lighting
 - C. Pull-out TV swivel
 - D. Specialized drawers
5. When mounting a surface mount incandescent fixture either on the ceiling or above the door in a closet or linen storage area, how far must it be from stored items?
- A. 6"
 - B. 8"
 - C. 10"
 - D. 12"
6. When mounting a recessed, enclosed incandescent light fixture either on the ceiling or above the door in a closet or linen storage area, how far must it be from stored items?
- A. 4"
 - B. 6"
 - C. 8"
 - D. 10"
7. What type of lighting would you use in a walkway?
- A. Task
 - B. General
 - C. Accent
 - D. Spotlight
8. What is the proper number and spacing of recessed cans over a kitchen sink or range?
- A. 1 can centered on sink
 - B. 2 cans 18" apart centered on sink
 - C. 3 cans 12" apart centered on the sink
 - D. Every 12" of open space of wall cabinetry
9. Which of the following is a classification of available cabinets?
- A. Cheap
 - B. Expensive
 - C. Semi-custom
 - D. Imported
10. Which of the following typically describes a counter top type?
- A. Cork
 - B. Seamless
 - C. Solid surface
 - D. Mother of pearl
11. A swinging window is better than a sliding window in a harsh environment because
- A. it costs less.
 - B. it seals tighter.
 - C. it is available in more styles.
 - D. they achieve a higher U-value.

12. Which of the following is one of the factors required to properly size the gas main and branch systems?
- A. Type of gas used
 - B. Number of appliances
 - C. Distance to each appliance
 - D. Maximum demand at each appliance
13. Any representations about a remodeling industry member's years of experience shall be _____.
- A. based upon the actual number of years engaged in the industry by the company or owner
 - B. based upon the total number of years' experience of employees
 - C. based on the number of years' experience of the oldest employee
 - D. based on both A and B above
14. When ceramic tile countertops are specified, a good decking _____.
- A. is the countertops sub's responsibility
 - B. is $\frac{3}{4}$ " BC or CDX plywood
 - C. is not required
 - D. can be $\frac{1}{2}$ " thick
15. When cutting a plastic laminate countertop which of the following would best help to reduce a chipout?
- A. Use a circular saw with a carbide finishing blade
 - B. Run the saw as slow as possible
 - C. Use a blade designed for cutting metal
 - D. Use a sacrificial cutting surface

What information will I receive about my score?

The test is designed to distinguish those who have the basic level of knowledge from those who do not. There is no evidence that someone who receives a very high score on the test will perform significantly better on the job than someone whose score falls exactly at the passing point. Therefore, if you pass the test, you will be informed only that you have successfully completed the credentialing process. You will NOT be notified of your actual score. Your completed exam will not be returned to you for review or comment.

If you do not achieve a passing score, you will be notified of that fact and will receive a report showing your pass/fail performance in each content area. This information is provided to assist you in deciding whether to retake the test and how to plan your study efforts for future tests.

When will I receive my test results?

CKBR test results will be mailed approximately four (4) weeks after the exam. You may elect to receive notification via e-mail by completing the appropriate form at the time you take the exam. To protect the confidentiality of your test score, no results will be given over the telephone. Results will not be released to any third party without your specific written permission. Forms will be available on the day of the exam or they may be requested from certification@nari.org.

Request for hand scoring

If you do not achieve a passing score on the exam, you may ask that your test be re-scored by hand to verify the reported score. Request must be in writing and must be accompanied by a payment in the amount of \$50, made payable to NARI. Request for hand scoring can be honored only up to 30 days after distribution of the results.

Retaking the test

There is a limit of two times that you may apply for and re-take the test within two years of your initial application date. If you do not succeed in passing the test by the second anniversary of your initial application date, you will be required to submit a new application form, fees, and meet all eligibility requirements in effect at the time of the application. There is a \$50 fee each time you retake the CKBR exam.

Appeals

Within 20 business days after announcement of the results of the CKBR examination, unsuccessful candidates may file an appeal of their score with the NARI Certification Board on the basis of alleged inappropriate exam administration procedures, or testing conditions severe enough to cause a major disruption of the examination process. No one other than the candidate may make the appeal. The NARI Certification Board shall respond to the candidate within 60 days of receiving the appeal.

Nondiscrimination policy

The NARI Certification Board does not discriminate against any person on the basis of age, gender, sexual orientation, race, religion, national origin, medical condition, physical disability, or marital status.

Answers to sample questions

1. D
2. B
3. C
4. D
5. D
6. B
7. B
8. B
9. C
10. C
11. B
12. D
13. A
14. B
15. A