

# THE AMERICAN BOARD OF NEUROSCIENCE NURSING



Certified Neuroscience Registered Nurse (CNRN®)

## 2016 Candidate Handbook

Applications for each exam window **must be submitted** to the ABNN Office no later than 5:00pm (Central time).  
Late applications will not be accepted.

March Exam Window: ***Tuesday, March 1–Thursday, March 31, 2016***  
Application Deadline: Friday, January 22, 2016.

July Exam Window: ***Friday, July 1–Sunday, July 31, 2016***  
Application Deadline: Friday, May 20, 2016.

October Exam Window: ***Saturday, October 1–Monday, October 31, 2016***  
Application Deadline: Friday, August 19, 2016.

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[www.abnncertification.org](http://www.abnncertification.org)

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# American Board of Neuroscience Nursing Certification Examinations

The American Board of Neuroscience Nursing (ABNN) is the independent, not-for-profit corporation established to design, implement and evaluate a certification program for professional nurses involved in the specialty practice of Neuroscience Nursing and its subspecialties. ABNN is solely responsible for the development, administration and evaluation of the certification programs. Neuroscience Nursing is the diagnosis and treatment of actual or potential patient and family responses to nervous system function and dysfunction across the healthcare continuum. The ABNN advances neuroscience nurses' practice and contributions to neurological health through certification of registered nurses.

Certification in Neuroscience Nursing is the formal recognition of the attainment and demonstration of a unique body of knowledge necessary for the practice of Neuroscience Nursing. In awarding the Certified Neuroscience Registered Nurse (CNRN) credential, ABNN recognizes nurses who demonstrate the attainment of this knowledge through successful completion of the certification examination or renewal recertification through the accumulation of continuing education credits consistent with established policies. The CNRN certification program was developed through the auspices of the American Association of Neurosurgical Nurses (now known as the American Association of Neuroscience Nurses, or AANN) in 1978 to formally recognize professional achievement and to promote excellence in Neuroscience Nursing.

## I. ABNN Purposes

- Encourage the study of Neuroscience Nursing and its subspecialties
- Promote and advance the practice of Neuroscience Nursing through specialty certifications
- Determine minimum requirements for individuals who seek certification in Neuroscience Nursing and its subspecialties
- Conduct an examination for certification of qualified candidates
- Provide a mechanism for recertification in Neuroscience Nursing and its subspecialties

## II. CNRN Eligibility Requirements

1. The candidate must have current, unrestricted licensure as a Registered Nurse in the United States, Canada or in any of the U.S. Territories that grant licensure utilizing the U.S. State Board Test Pool Exam or National Council for Licensure Exam. Candidates from other countries will be considered if they meet a comparable licensure requirement and can read and understand the English Language. **All candidates for the CNRN exam will be subject to an audit to validate their current licensure.**
2. The candidate must be a professional nurse engaged in Neuroscience Nursing clinical practice or as a consultant, researcher, administrator or educator who has completed and can provide documentation of at least two (2) years full-time (4,160 hours) of direct or indirect Neuroscience Nursing practice as a Registered Nurse in the last five (5) years at the time of application.
  - a. Direct Neuroscience Nursing practice is defined as involvement in the nursing process in a clinical setting where the nursing actions and judgments are focused on a particular individual, family or group of individuals where there is continuing professional responsibility and accountability for the outcomes of these actions.
  - b. Indirect Neuroscience Nursing practice is defined as involvement that includes time spent in clinical supervision of students and/or staff, research or consultation.
3. The candidate must complete the online CNRN certification application at [www.abnncertification.org](http://www.abnncertification.org) and submit it with the appropriate fees, all of which must be received by the ABNN Office prior to the application deadline.
4. The ABNN does not discriminate against candidates for certification on the basis of age, race, religion, sex, national origin, marital status, sexual orientation, disability or gender identity.

If you have any questions regarding eligibility, please email [info@abnncertification.org](mailto:info@abnncertification.org).

## III. Application Deadlines

Applications for each exam administration and the applicable fee **must be submitted** online at [www.abnncertification.org](http://www.abnncertification.org) by no later than 5:00pm (central time) by the deadlines listed below:

<b>Exam Window:</b>	March 1-31, 2016	July 1-31, 2016	October 1-31, 2016
<b>Deadline:</b>	Friday, January 22, 2016	Friday, May 20, 2016	Friday, August 19, 2016

Candidates are encouraged to submit the application and fee online well in advance of the deadline to allow time to supply any additional required information noted during the application review process. ABNN reserves the right to request additional documentation to verify experience eligibility. Deficiencies cannot be corrected after the deadline. If paying by check, complete the

application online, hit “Save & Print” and mail to: ABNN, 8735 W. Higgins Rd. Suite 300, Chicago, IL 60631. **Faxed applications will not be accepted under any circumstances.** Candidates should keep a copy of the application for their records. If you need assistance completing the forms, or have questions about the status of your application, contact ABNN toll-free at 888/557-2266.

#### IV. Examination Application Fees

If paying by credit card:

<b>AANN Member:</b>	\$285
<b>Non-member:</b>	\$380

If paying by check:

<b>AANN Member:</b> (check payable to ABNN)	\$310
<b>Non-member:</b> (check payable to ABNN)	\$405

#### V. Refund of Application Fees

A candidate who wishes to cancel their examination application must contact the ABNN office **14 days prior to the examination window**. Exam withdrawals **received** by the ABNN office at least 14 days prior to the exam window will receive a refund of their application fee minus a **\$100** administrative fee. **Please note:** If a candidate has already scheduled their examination date and location with the testing company, the candidate will forfeit examination fees if attempting to cancel the examination. An applicant that does not complete the audit process will not receive a refund.

#### VI. Application Audits

ABNN randomly audits 5% of certification applications. Applications may be audited to verify employment/work hour information, and the state board of nursing may be asked to verify current licensure. Other applications may be audited at the discretion of the ABNN Board. Failure to provide requested documentation for an audit will result in the denial of the candidate’s application. No refunds will be given for a candidate that does not complete the audit.

#### VII. Requests for Testing Accommodations

AMP complies with the Americans with Disabilities Act and strives to ensure that no individual with a disability— as defined by the ADA as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment—is deprived of the opportunity to take the examination solely by reason of that disability. AMP will provide reasonable accommodations for candidates with disabilities. Candidates requesting special accommodations must call AMP at 888-519-9901 to schedule their examination once completing online exam application.

If approved, candidates requesting special accommodations must call AMP at 888-519-9901 to schedule their examination.

1. Wheelchair access is available at all established assessment centers. Candidates must advise AMP at the time of scheduling that wheelchair access is necessary.
2. Candidates with visual, sensory, physical or learning disabilities that would prevent them from taking the examination under standard conditions may request special accommodations and arrangements and will be reviewed by AMP.

Verification of the disability and a statement of the specific type of assistance needed must be made in writing to AMP at least 45 calendar days prior to your desired examination date by completing the Request for Special Examination Accommodations and Documentation of Disability-Related Needs forms. AMP will review the submitted forms and will contact you regarding the decision for accommodations.

AMP is equipped with Telecommunication Devices for the Deaf (TDD) to assist deaf and hearing-impaired candidates. TDD calling is available 8:30 am–5 pm (CST), Monday–Friday at 913-895-4637. This TDD phone option is for individuals equipped with compatible TDD machinery.

## VIII. Examination Administration

ABNN contracts with Applied Measurement Professionals, Inc. (AMP) to provide examination services. AMP carefully adheres to industry standards for development of practice-related, criterion-references examinations to assess competency and is responsible for administering the CNRN exam and scoring and reporting examination results.

The CNRN exam is offered three times during the year in computer-based testing (CBT) format. Examinations are delivered by computer at more than 190 AMP assessment centers located throughout the United States and internationally. For a current list of sites visit: <http://online.goamp.com/CandidateHome/assessmentCenterNetworkLocations.aspx>. Please note that you will be unable to register for a testing site until you have submitted and received confirmation of your completed online exam application by ABNN.

The CBT exam will be offered during the following windows:

- March 1–31
- July 1–31
- October 1–31

The examination is administered by appointment only Monday through Friday at 9 am and 1:30 pm. Evening and Saturday appointments may be scheduled based on availability. Available dates will be indicated when scheduling your examination. Candidates are scheduled on a first-come, first-served basis.

Examinations will not be offered on the following U.S. holidays:

- New Year's Day
- Martin Luther King Day
- Presidents' Day
- Good Friday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veterans' Day
- Thanksgiving Day (and the following Friday)
- Christmas Eve
- Christmas Day
- New Year's Eve

## IX. Scheduling an Examination Appointment

After you have registered for the examination and received notification of your eligibility by email and/or letter, you may schedule the examination by one of the following methods:

**Schedule online:** Schedule a testing appointment online at any time by using AMP's Online Application/Scheduling service at [www.goAMP.com](http://www.goAMP.com). To use this service follow these steps: Go to [www.goAMP.com](http://www.goAMP.com) and select "Schedule/Apply for an Exam".

Follow the simple step-by-step instructions to choose your examination program and register for the examination.

**Schedule by phone:** Call AMP toll-free at 888-519-9901 to schedule an examination appointment from 7 a.m. – 9 p.m. (Central Time) Monday through Thursday, 7 a.m. to 7 p.m. on Fridays, and 8:30 a.m. to 5 p.m. on Saturdays.

When you contact AMP to schedule an appointment, please be prepared to confirm a date and location for testing and to provide your name and CD candidate number (from AMP's email scheduling notice). Note: Your Social Security number is required for unique identification. All individuals are scheduled on a first-come, first-served basis. Refer to the following chart.

If you call AMP by 3:00 p.m. Central time on	Depending on availability, your examination may be scheduled beginning
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday/Saturday
Thursday	Monday
Friday	Tuesday

## X. Rescheduling an Exam Date

If you have already scheduled your date and time for the exam, you may reschedule your appointment ONCE at no charge by calling AMP at 888-519-9901 at least 2 business days prior to your scheduled appointment. The following schedule applies:

If your examination is scheduled on...	You must call AMP by 3pm CT to reschedule the examination by the previous...
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday
Thursday	Monday
Friday	Tuesday

## XI. Exam Window Postponement

If you have not yet scheduled your exam date and wish to postpone to the next exam window, you will need to contact ABNN to process this request. **You are only allowed to change your exam window one time.** If you have an extenuating circumstance and are requesting to postpone your exam window more than once, please contact [info@abnncertification.org](mailto:info@abnncertification.org). ABNN will need to review your request. Requests to postpone must be received **at least 14 days** prior to your selected examination window. If you do not postpone by the timeframe above, your original valid test window will not change. If you do not complete the exam by your valid test window you will be required to submit a new application and pay all associated fees.

## XII. Exam Application Cancellation

If you have applied to take the CNRN examination and have not scheduled the exam date and location, and you need to cancel the application, please contact ABNN at [info@abnncertification.org](mailto:info@abnncertification.org).

Withdrawal requests that received by the ABNN office **at least 7 days** prior to the scheduled examination window will receive a refund of their application fee minus a \$100 administrative fee. Examination withdrawals received by the office fewer than 7 days prior to the examination **receive no refund**.

If your examination is scheduled on...	You must call AMP by 3pm CT to reschedule the examination by the previous...
Monday	Monday
Tuesday	Tuesday
Wednesday	Wednesday
Thursday	Thursday
Friday	Friday

### ***Missed Appointments and Cancellations***

You will forfeit your examination registration and all fees paid to take the examination under the following circumstances:

- You do not complete the audit, if selected.
- You wish to reschedule an examination but fail to contact AMP at least 2 business days prior to the scheduled testing session.
- You wish to reschedule a second time.
- You wish to postpone to a different exam window for a second time.
- You appear more than 15 minutes late for an examination.
- You fail to report for an examination appointment.

A new, complete application and examination fee are required to reapply for examination. Fees are non-refundable.

## XIII. Inclement Weather, Power Failure, or Emergency

In the event of inclement weather or unforeseen emergencies on the day of an examination, AMP will determine whether circumstances warrant the cancellations and subsequent rescheduling of an examination. The examination will usually not be scheduled if the assessment center personnel are able to open the assessment center.

Visit AMP's website at [www.goAMP.com](http://www.goAMP.com) prior to the examination to determine if AMP has been advised that any assessment centers are closed. Every attempt is made to administer the examination as scheduled; however, should an examination be canceled at an assessment center, all scheduled candidates will receive notification following the examination regarding rescheduling or reapplication procedures.

If power to an assessment center is temporarily interrupted during an administration, your examination will be restarted. The responses provided up to the point of interruption will be intact, but for security reasons, the questions will be scrambled.

## **XIV. Computer-Based Testing (CBT) Examination Procedures**

### ***Taking the Examination***

Your examination will be given by computer at an AMP assessment center. You do not need any computer experience or typing skills to take your examination. On the day of your examination appointment, report to the assessment center no later than your scheduled testing time. Look for signs indicating AMP assessment center check-in. **If you arrive more than 15 minutes after the scheduled testing time, you will not be admitted.**

### ***Identification***

To gain admission to the assessment center, you must present two forms of identification one with a current photograph. Both forms of identification must be valid and include your current name and signature. You will also be required to sign a roster for verification of identity. You **MUST** bring one of the following:

- driver's license with photograph
- state identification card with photograph
- passport
- military identification card with photograph.

The second form of identification must display your name and signature for signature verification (e.g., credit card with signature, social security card with signature, employment or student ID card with signature). If your name on these documents is different than it appears on your identification, you must bring proof of your name change (e.g., marriage license, divorce decree, or court order).

### ***Assessment Center Security***

AMP administration and security standards are designed to ensure all candidates are provided the same opportunity to demonstrate their abilities. The assessment center is continuously monitored by audio and video surveillance equipment for security purposes.

The following security procedures apply during the examination:

- Examinations are proprietary. No cameras, notes, tape recorders, pagers, or cellular/smart phones are allowed in the testing room. Possession of a cellular/smart phone or other electronic devices is strictly prohibited and will result in dismissal from the examination.
- Calculators are not necessary as all calculations found on the examination can be performed without the aid of a calculator. However, if you wish to do so you are permitted to bring a personal calculator and use it during the examination. The only type of calculator permitted is a simple battery-powered pocket calculator that does not have an alphanumeric keypad, and does not have the capability to print or to store or retrieve data. You **MUST** present your calculator to the examination proctor for inspection **PRIOR** to the start of the examination. Using a calculator during the examination that has **NOT** been inspected may result in dismissal from the examination.
- No guests, visitors, or family members are allowed in the testing room or reception areas.
- Candidates may be subjected to a metal detection scan upon entering the examination room.

### ***Personal Belongings***

No personal items, valuables, or weapons should be brought to the assessment center. Only wallets and keys are permitted. Coats must be left outside the testing room. You will be provided a soft locker to store your wallet and/or keys with you in the testing room. You will not have access to these items until after the examination is completed. Please note the following items will not be allowed in the testing room except securely locked in the soft locker:

- watches
- hats.

Once you have placed everything into the soft locker, you will be asked to pull out your pockets to ensure they are empty. If all personal items will not fit in the soft locker you will not be able to test. The site will not store any personal belongings. If any personal items are observed in the testing room after the examination is started, the administration will be forfeited.

### ***Examination Restrictions***

- Pencils will be provided during check-in.
- You will be provided with one piece of scratch paper at a time to use during the examination, unless noted on the sign-in roster for a particular candidate. You must return the scratch paper to the supervisor at the completion of testing, or you will not receive your score report.



- No documents or notes of any kind may be removed from the assessment center.
- No questions concerning the content of the examination may be asked during the examination.
- Eating, drinking, or smoking will not be permitted in the assessment center.
- You may take a break whenever you wish, but you will not be allowed additional time to make up for time lost during breaks.

### **Misconduct**

If you engage in any of the following conduct during the examination you may be dismissed, your scores will not be reported, and examination fees will not be refunded. Examples of misconduct are when you:

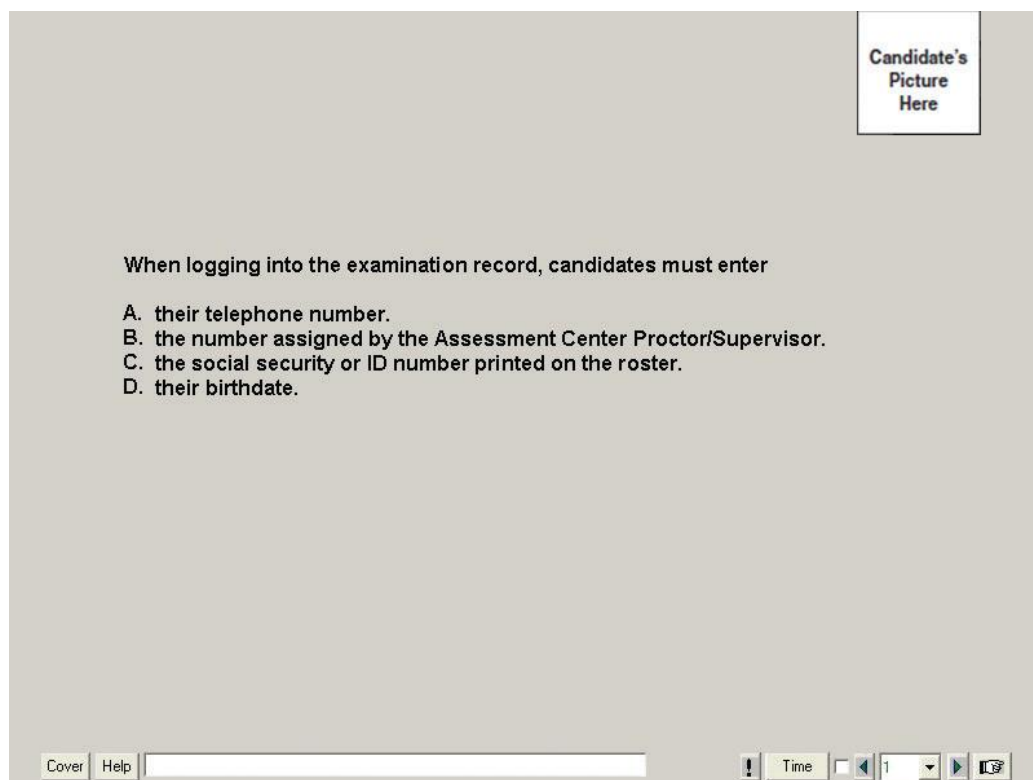
- create a disturbance, are abusive, or otherwise uncooperative
- display or use electronic communications equipment such as pagers, cellular/smart phones
- talk or participate in conversation with other examination candidates
- give or receive help or are suspected of doing so
- leave the assessment center during the administration
- attempt to record examination questions or make notes
- attempt to take the examination for someone else
- are observed with personal belongings
- are observed with notes, books, or other aids without it being noted on the roster.

### **Practice examination**

Prior to attempting the timed examination, you will be given the opportunity to practice taking an examination on computer. The time you use for this practice examination is not counted as part of your examination time. When you are comfortable with the computer testing process, you may quit the practice session and begin the timed examination.

### **Timed examination**

Following the practice examination, you will begin the timed examination. Before beginning, instructions for taking the examination are provided on-screen. The examination contains 220 questions. Four hours are allotted to complete the examination. The following is a sample of what the computer screen will look like when candidates are attempting the examination:



The computer monitors the time you spend on the examination. The examination will terminate if you exceed the time limit. You may click on the "Time" button in the lower right portion of the screen to monitor your time. A digital clock indicates the time remaining for you to complete the examination. The time feature may also be turned off during the examination.

Only one examination question is presented at a time. The question number appears in the lower right portion of the screen. The entire examination question appears onscreen (i.e., stem and four options labeled: A, B, C, and D). **Indicate your choice by either entering the letter of the option you think is correct (A, B, C, or D) or clicking on the option using the mouse.** To change your answer, enter a different option by pressing the A, B, C, or D key or clicking on the option using the mouse. You may change your answer as many times as you wish during the examination time limit.

To move to the next question, click on the forward arrow (>) in the lower right portion of the screen. This action will move you forward through the examination question by question. If you wish to review any questions, click the backward arrow (<) or use the left arrow key to move backward through the examination.

A question may be left unanswered for return later in the examination session. Questions may also be bookmarked for later review by clicking in the blank square to the right of the Time button. Click on the hand icon to advance to the next unanswered or bookmarked question on the examination. To identify all unanswered and bookmarked questions, repeatedly click on the hand icon or press the NEXT key. When the examination is completed, the number of questions answered is reported.

If not all questions have been answered and there is time remaining, return to the examination and answer those questions. Be sure to answer each question before ending the examination. **There is no penalty for guessing.**

Online comments may be entered for any question by clicking on the button displaying an exclamation point (!) to the left of the Time button. This opens a dialog box where comments may be entered. Comments will be reviewed, but individual responses will not be provided.

## **XV. Notification of Examination Results**

1. All exam candidates will be notified of their pass/fail status once the exam is completed.

Each successful candidate will receive a frameable certificate and wallet card approximately 6–8 weeks after completing the examination. If a candidate does not receive your initial certificate, contact [info@abnncertification.org](mailto:info@abnncertification.org) within 6 months of passing the exam. After 6 months, a replacement certificate will be issued for \$25.

2. It is the candidate's responsibility to notify the ABNN office of any errors or changes in contact information prior to the examination. A \$25 fee will be assessed to correct certificates with misspelled names if the candidate does not follow the above instructions. CBT candidates are prompted to verify name and address information when scheduling their exam online.
3. Any requests for rescoring of test scores must be submitted using the form in this handbook along with \$25 within 90 days of the postmark date on the formal letter of notification of test results. Upon receipt of such a request, the answer sheet will be rescored and the results sent to the candidate within six (6) weeks. The candidate must assume the cost of rescoring.
4. Candidates who fail the certification examination may reapply to retake it as often as desired, provided they continue to meet the eligibility requirements, and submit a new application and fee for each attempt.

## **XVI. Confidentiality of Examination Results**

Examination results are released only to the candidate at the close of the exam and in writing. In response to specific inquiries, and with permission of the individual CNRN, verification of current CNRN status will be provided. Group data without individual identifying information may be used for research and study purposes, and may be released to other groups with a specific interest in nursing certification.

## **XVII. Duration of Certification**

CNRN certification is effective for a period of five (5) years. The actual expiration date of a CNRN certificate is December 31<sup>st</sup>, of the 5<sup>th</sup> year after certification (i.e., certification of CNRNs certified in March, July, or October 2016 expires on December 31, 2021). To renew certification prior to the expiration date, the certificant may either retake the certification exam or submit documentation of the required continuing education contact hours and work hours in neuroscience nursing during the 5<sup>th</sup> year of the certification cycle.

Continuing education credits begin to be eligible toward recertification effective immediately following the date of successful examination. You may track your CE's online at [www.abnncertification.org](http://www.abnncertification.org) throughout your recertification cycle. ABNN will provide reminder information in the middle of the year that the candidate is due to recertify. However, it is ultimately the responsibility of the CNRN to initiate the recertification process. Applications for recertification will not be accepted prior to the 5<sup>th</sup> year of the certification cycle.

## **XVIII. The CNRN Credential**

Each passing candidate will receive a certificate indicating attainment of certification. Successful completion of the examination entitles the candidate to use the credential CNRN. Please note, however, that the CNRN does not replace use of the designation, RN.

## **XIX. Revocation of Certification**

Causes for revocation of certification include:

- The CNRN did not possess the required qualification and requirements for the examination, whether or not such deficiency was known to ABNN prior to the examination or at the time of issuance of the certificate;
- The CNRN made a material misstatement or withheld information on the application or in any representation to ABNN, whether intentional or unintentional;
- The CNRN engaged in irregular practices in connection with an examination, whether or not such practices had an effect on the performance of the CNRN on an examination;
- There has been a limitation or termination of any right of the CNRN associated with the practice of neuroscience nursing in any state, province or country, including the imposition of any requirement of surveillance, supervision or review by reason of violation of a statute or governmental regulation, disciplinary action by any nursing licensing authority, entry into a consent order, or voluntary surrender of license.

No certification shall be revoked unless the CNRN concerned is notified of the intent of ABNN and has an opportunity for a hearing before a select committee of ABNN. Such notification shall be sent by certified mail no less than 30 days prior to the hearing.

## **XX. Irregularities in Testing**

In addition to Revocation of Certification, applicants should also understand that ABNN may or may not require a candidate to retake the examination, or a portion of the examination, if presented with sufficient evidence that the security of the examination has been compromised, notwithstanding the absence of any evidence of a candidate's personal involvement in such activities.

## **XXI. Denial of Application and Appeal**

Application to take the examination will be denied if the applicant is deemed ineligible for certification, or if documentation does not meet the requirements listed. Falsification of the application, including failure to provide material information, is grounds for denial of the application or for denial of certification. In such cases, the applicant will be notified in writing of the specific reason. There can be no appeal for failure to achieve a passing score on the examination, lack of current RN license, or failure to apply by the deadline. Any applicant whose application for certification is denied approval will automatically be sent information about how to appeal the decision, including steps in the appeal process and additional information required. Applicants denied application approval will receive a refund of the application fee, minus a \$100 administrative fee. *Note: There is no refund if an applicant fails to complete an audit.*

## **XXII. Copyrighted Examination Questions**

All examination questions are the copyrighted property of ABNN. It is forbidden under federal copyright law to copy, reproduce, record, distribute or display these examination questions by any means, in whole or in part. Doing so may subject the candidate to severe civil and criminal penalties.

## The Examination

The CNRN examination is a generalist exam, and is not intended to emphasize any particular level of care nor any particular developmental level. The exam consists of 220 multiple-choice items with a total testing time of **four (4) hours**. Twenty (20) out of the 220 items are pre- test items, which are not scored. (Note: the examination may include additional items that are being tested for future use.) Three levels of knowledge are tested: knowledge; interpretation; and problem solving and evaluation. The following lists include some of the actions associated with each of the knowledge levels.

### Knowledge

Define  
Repeat  
Record  
List  
Describe  
Recognize  
Explain  
Report  
Review  
Relate

### Interpretation

Interpret  
Apply  
Use  
Distinguish  
Analyze  
Compare  
Solve  
Inspect  
Examine  
Categorize

### Problem Solving and Evaluation

Compose  
Plan  
Propose  
Formulate  
Judge  
Rate  
Value  
Select  
Organize  
Evaluate

## Sample Examination Questions\*

1. Following a cerebral vascular accident (CVA) involving the middle cerebral artery, a patient developed homonymous hemianopia. Which of the following interventions is MOST suitable as part of the rehabilitation plan?
  - a) Gather assessment data for a likely ophthalmology consult
  - b) Patch the affected eye
  - c) Discourage ambulation
  - d) Teach visual scanning techniques
2. After a head injury, a patient has persistent recent memory loss. Which of the following strategies would be MOST beneficial as the patient reintegrates into the community?
  - a) Keep a calendar of daily activities
  - b) Memorize the next day's schedule every night
  - c) Hire a personal care assistant
  - d) Ask others for daily instructions
3. Which of the following is the MOST suitable intervention for a patient with cranial nerve involvement due to Guillain-Barré Syndrome (GBS)?
  - a) Sensory checks below the level of the lesion
  - b) Establishing communication patterns
  - c) Use of neuromuscular blocking agents
  - d) Initiation of continuous positive airway pressure (CPAP) for respiratory management
4. Of the following, which is MOST appropriate as an interdisciplinary team goal for the sensory stimulation program for a comatose patient?
  - a) Design a patient-centered program
  - b) Plan a comprehensive bowel and bladder retraining program
  - c) Select nationally recognized stimulation techniques
  - d) Develop a treatment schedule consistent with schedules of each team member

Answers: 1. d; 2. a; 3. b; 4. a

*\*These items are intended only as samples of the style of questions you should expect. They are not representative of the numbers of any category of question that will be included on the test.*

## XXIII. Commonly Asked Questions about the CNRN Examination

### How is the passing score determined?

The passing score is established by a systematic procedure that employs the judgment of neuroscience nursing experts from around the country as well as the assistance of professional psychometricians from Applied Measurement Professionals, Inc. (AMP). The final determination of the passing score is made by the ABNN Board of Trustees.

### What is a scaled score?

Candidate scores are not calculated as a raw score (the number of questions answered correctly) but rather as a scaled or weighted score. Although much care is taken to assure that all forms of the examination are similar, new forms may vary somewhat in level of difficulty from earlier ones. A raw score on one may not be comparable, therefore, to a raw score on a different version. Rather, scores are calculated as scaled or weighted scores that take into account the difficulty of the question. The degree of difficulty is determined by the neuroscience nursing experts referred to above. To prevent candidates who took a less difficult form of the examination from having an unwarranted advantage over those who took a slightly more difficult form, raw scores are converted to scaled scores that represent comparable levels of achievement.

The test consists of 220 questions; members of the Test Development Committee meet with the psychometricians to select 20 questions that do not meet the standards of the test. This may be through ambiguous stems or distractors, or through statistical analysis. The test is then scored once a total of 200 questions has been achieved. Each test will contain newly- appointed test questions; they may remain in the test, or they may be discarded, depending whether or not they meet the standards.

### What is the best way to study for the exam?

There is no best way. Based on a survey of CNRN candidates, the following are summary results of how successful candidates prepared for the exam (N= 90 respondents):

**Respondents began studying an average of 4 months prior to exam (range 1 month to 12 months), and the majority of respondents spent at least 10 hours per week studying for the exam (see table below).**

<b>Hours Spent Studying Per Week</b>		
<b>Hours Per Week</b>	<b>Total Responses</b>	<b>Percentage of Responses</b>
60	1	1%
40	5	6%
20	21	23%
10	35	39%
5	16	18%
Less than 5	12	13%

### **Examination Preparation Methods:**

Candidates utilized a variety of means to prepare for the exam. Many used multiple methods to ensure breadth in their preparation. The table below lists additional specifics of the types of preparation used.

<b>Study Methods Used in Exam Preparation</b>		
<b>Study Method</b>	<b>Total Responses</b>	<b>Percentage of Responses</b>
Review Course	51	57%
Group Study	7	8%
Independent Study	77	86%
On-line Study Course	5	6%

**Textbooks Used:**

A wide variety of texts were employed to prepare for the CNRN exam. Several, however, stood out as clear favorites. The top three were (in order of popularity based on the survey):

- *AANN Core Curriculum for Neuroscience Nursing*
- *The Clinical Practice of Neurological and Neurosurgical Nursing* by Joanne V. Hickey
- *Neuroscience Nursing: A Spectrum of Care* by Ellen Barker

**Journals Used:**

Candidates also utilized many journals and periodicals to enhance their preparation. The three most commonly utilized were (in order of popularity based on the survey):

- *The Journal of Neuroscience Nursing*
- *The American Journal of Nursing*
- *Critical Care Nursing*

In addition, the American Association of Neuroscience Nurses (AANN) has CNRN preparation material available for purchase in their Online Store. Please visit [www.AANN.org](http://www.AANN.org) to purchase these programs. *Note: ABNN does not endorse any educational product or program.*

## **XXIV. Scope of the Examination**

Attainment of CNRN certification includes successful completion of a general neuroscience nursing exam that is intended to determine if the candidate possesses the basic knowledge needed to care for both neurosurgical and neurological patient populations competently. Just as neuroscience nursing includes caring for patients across the lifespan and in a variety of settings, the exam includes items about patients at various ages and developmental stages and in different levels of care. While questions may vary in their level of difficulty, the exam tests the candidate's knowledge of core neuroscience nursing principles.

## **XXV. Examination Construction**

ABNN conducted a role delineation survey during 1996, 1997, 2001, 2005, 2009, and most recently in 2014. The survey examined neuroscience health problems, human responses in neuroscience disorders and specific nursing interventions used to describe Neuroscience Nursing practice. Based on the responses, the ABNN Role Delineation Task Force defined a framework for construction of the examination. Following are a detailed content outline of the exam and by categories of disorders. Although not all content or human responses are part of the CNRN Outline, the core of Neuroscience Nursing knowledge required for specialty practice is clearly represented.

## **XXVI. ABNN CNRN EXAM**

*(Based on 2014 Role Delineation Study)*

### *Disorders - Detailed Content Outline*

#### **I. Trauma (18%)**

- A. Traumatic Brain Injury
  - 1. Blast
  - 2. Blunt
  - 3. Penetrating
- B. Hematoma/Hemorrhage
  - 1. Chronic Subdural
  - 2. Acute Subdural
  - 3. Epidural
  - 4. Intracerebral
  - 5. Traumatic Subarachnoid Hemorrhage
- C. Diffuse Axonal Injury
- D. Contusions
- E. Concussions
- F. Fractures
  - 1. Spinal Column
  - 2. Skull
- G. Spinal Cord Injury

#### **II. Cerebrovascular (26%)**

- A. Transient Ischemic Attack
- B. Aneurysm
- C. Arterio-venous Malformation
- D. Arterio-venous Fistula
- E. Carotid Stenosis
- F. Cavernous Angiomas
- G. Carotid Dissection
- H. Vertebral Dissection
- I. Ischemic Stroke
  - 1. Thrombotic
  - 2. Embolic
  - 3. Lacunar
- J. Hemorrhagic Stroke
  - 1. Intracerebral Hemorrhage
  - 2. Subarachnoid Hemorrhage (Cerebral Vasospasm)
  - 3. Intraventricular Hemorrhage
  - 4. Hemorrhagic Conversion
- K. Anoxic Injury

### **III. Tumors (13%)**

#### **A. Brain Tumors**

1. Neuroepithelial Tissue (e.g., glioblastoma, astrocytoma, oligodendroglioma, embryonal tumors)
2. Cranial and Spinal Nerves (e.g., schwannoma, neurofibroma)
3. Meningeal and Related Tissues
4. Hematopoietic (e.g., lymphomas, hemangioblastomas)
5. Endocrine (e.g., craniopharyngioma, pineal, pituitary)
6. Metastatic

#### **B. Spinal Cord Tumors**

1. Primary (e.g., astrocytoma, ependymoma, meningioma)
2. Metastatic
3. Neurofibroma

### **IV. Immune/Infection (11%)**

#### **A. Abscesses**

#### **B. Amyotrophic Lateral Sclerosis**

#### **C. AIDS**

#### **D. Bell's Palsy**

#### **E. Encephalitis**

#### **F. Demyelinating Polyneuropathy**

1. Guillain-Barré
2. ADEM (acute disseminating encephalomyelitis)
3. Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)

#### **G. Meningitis (viral, bacterial, fungal origin)**

#### **H. Multiple Sclerosis**

#### **I. Myasthenia Gravis**

#### **J. Prion Disease (e.g. CJD)**

#### **K. Encephalopathies (e.g. toxic, metabolic, and PRESS)**

### **V. Seizures (9%)**

#### **A. Partial**

#### **B. Generalized**

#### **C. Status Epilepticus**

#### **D. Non-epileptic Seizures**



## **VI. Pediatric and Developmental (8%)**

- A. Chiari Malformation
- B. Cerebral Palsy
- C. Spina Bifida

## **VII. Chronic Neurological (15%)**

- A. Headaches
  - 1. Acute
  - 2. Chronic
- B. Pain
  - 1. Acute
  - 2. Chronic
  - 3. Neuropathic Pain (e.g. trigeminal neuralgia, peripheral neuropathy)
- C. Dementia
  - 1. Alzheimer's Disease
  - 2. Vascular
- D. Movement Disorders
  - 1. Parkinson's Disease
  - 2. Dystonia
  - 3. Benign Essential Tremor
  - 4. Tourette's Syndrome
  - 5. Huntington's Disease
  - 6. Restless Leg Syndrome
- E. Sleep Disorders
- F. Chemical Dependency
- G. Degenerative Spine Disease
  - 1. Degenerative Disk Disease
  - 2. Vertebral Compression Fractures
  - 3. Lumbar Spondylolisthesis
  - 4. Spinal Stenosis
  - 5. Herniated Nucleus Pulposus
- H. Balance and Dizziness Disorders (e.g., Meniere's disease, Friedrich's Ataxia)
- I. Peripheral Nerve Injury
- J. Repetitive Stress Injury (e.g., carpal tunnel syndrome, lumbar/cervical strain)
- K. Hydrocephalus
  - 1. Communicating
  - 2. Non-communicating
  - 3. Normal Pressure

**I. Basic Physiological (20%)**

- A. Activity and Self-care
- B. Elimination Management
- C. Nutrition
- D. Comfort Promotion

**II. Complex Physiological (36%)**

- A. Electrolyte & Acid-base Management
- B. Drug Management
- C. Neurological Management
- D. Perioperative and Peri-procedural Care
- E. Respiratory Management
- F. Thermoregulation
- G. Cardiovascular Management

**III. Behavioral (15%)**

- A. Cognitive Behavioral Therapy
- B. Coping Assistance
- C. Health Education

**IV. Family and Culture (9%)**

- A. Family
- B. Culture
- C. End of Life

**V. Safety (11%)**

- A. Crisis Management
- B. Injury Prevention

**VI. Health System (9%)**

- A. Health Management Information Management
- B. Professional Competence



## REQUEST FOR SPECIAL EXAMINATION ACCOMMODATIONS

If you have a disability covered by the Americans with Disabilities Act, **please complete this form and the Documentation of Disability-Related Needs on the reverse side and submit it with your application at least 45 days prior to your requested examination date.** The information you provide and any documentation regarding your disability and your need for accommodation in testing will be treated with strict confidentiality.

### Candidate Information

Candidate ID # \_\_\_\_\_ Requested Assessment Center: \_\_\_\_\_

\_\_\_\_\_  
Name (Last, First, Middle Initial, Former Name)

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_

\_\_\_\_\_  
City State Zip Code

\_\_\_\_\_  
Daytime Telephone Number Email Address

### Special Accommodations

I request special accommodations for the \_\_\_\_\_ examination.

Please provide (check all that apply):

- ☐ Reader
- ☐ Extended testing time (time and a half)
- ☐ Reduced distraction environment
- ☐ Please specify below if other special accommodations are needed.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

### PLEASE READ AND SIGN:

I give my permission for my diagnosing professional to discuss with AMP staff my records and history as they relate to the requested accommodation.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Return this form with your examination application and fee to:**  
**Examination Services, AMP, 18000 W. 105th St., Olathe, KS 66061-7543**  
**If you have questions, call the Candidate Support Center at 888-519-9901.**



## DOCUMENTATION OF DISABILITY-RELATED NEEDS

Please have this section completed by an appropriate professional (education professional, physician, psychologist, psychiatrist) to ensure that AMP is able to provide the required accommodations.

### Professional Documentation

I have known \_\_\_\_\_ since \_\_\_\_ / \_\_\_\_ / \_\_\_\_ in my capacity as a  
Candidate Name Date

My Professional Title

The candidate discussed with me the nature of the test to be administered. It is my opinion that, because of this candidate's disability described below, he/she should be accommodated by providing the special arrangements listed on the reverse side.

Description of Disability: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signed: \_\_\_\_\_ Title: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

Date: \_\_\_\_\_ License # (if applicable): \_\_\_\_\_

**Return this form with your examination application and fee to:**  
**Examination Services, AMP, 18000 W. 105th St., Olathe, KS 66061-7543**  
**If you have questions, call the Candidate Support Center at 888-519-9901.**

## REQUEST FOR DUPLICATE CNRN EXAMINATION SCORE REPORT

**Directions:** You may use this form to ask AMP, the testing agency, to send you a duplicate copy of your score report. This request must be postmarked no later than 90 days after the examination administration. Proper fees and information must be included with the request. Please print or type all information in the form below. Be sure to provide all information and include the correct fee, or the request will be returned.

**Fees:** \$25 U.S. Dollars per copy. Please enclose a check or money order payable in U.S. Dollars to AMP. Do not send cash. Write your test identification number on the face of your payment.

**Mail to:** AMP/CNRN Exam Services  
18000 W. 105<sup>th</sup> Street  
Olathe, KS 66061-7543, USA

**Amount enclosed:** \$ \_\_\_\_\_

**Examination Date:** \_\_\_\_\_

*Print your current name and address:*

Name \_\_\_\_\_ Candidate ID \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

State/Prov. \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Daytime Telephone (\_\_\_\_\_) \_\_\_\_\_ Fax (\_\_\_\_\_) \_\_\_\_\_

E-Mail \_\_\_\_\_

*If the above information was different at the time you tested, please write the original information below:*

Name \_\_\_\_\_ Candidate ID \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

State/Prov. \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Daytime Telephone (\_\_\_\_\_) \_\_\_\_\_ Fax (\_\_\_\_\_) \_\_\_\_\_

E-Mail \_\_\_\_\_

Examination Date \_\_\_\_\_ Test Site \_\_\_\_\_

**I hereby request AMP to send a duplicate copy of my score report to the first address shown above.**

Candidate's Signature \_\_\_\_\_ Date \_\_\_\_\_