

## ***Overview of the NBRC CRT Examination***

The National Board for Respiratory Care (NBRC) administers credentialing examinations for the respiratory care practitioners (RCP). The Certified Respiratory Therapist (CRT) and Registered Respiratory Therapist (RRT) are the common credentialing examinations for most practitioners. The NBRC also offers specialty examinations in Pulmonary Function Technology, Neonatal Perinatal Specialty, and Sleep Disorders Specialty.

The CRT is the entry-level credential and it is used in most States for licensure or certification. The RRT is an advanced level credential. Eligible candidates must pass the CRT examination before sitting for the two-part RRT examinations (written and clinical simulation).

**Applying and Scheduling the Web-based Examination** – The CRT examination may be applied online via the NBRC website ([nbrc.org](http://nbrc.org)) or by postal mail using the application inside the Candidate Handbook. Once the application is approved, the candidate needs to schedule the date and time for the examination. The detailed policies are also described in the Candidate Handbook or on the NBRC website.

**Computer Testing** – The computer-based online examinations are administered at testing centers (e.g., H&R Block) across the U.S. Examination schedule is available for different time slots on most weekdays. Since most testing centers have a limited number of computers, the candidate should apply early for the best availability of dates and time slots. The candidate must arrive before the schedule time on the date of the examination. Late arrival or failure to show proper picture identifications will be grounds for cancellation of the appointment and forfeiture of all fees. See current NBRC policies for additional requirements.

Online examination allows immediate scoring at the end of the examination. The candidate will receive the examination results to include the pass/fail status before leaving the testing center.

**CRT Examination** - The CRT examination has **160** multiple choice questions (140 scored questions and 20 beta questions). The 20 beta questions are used as potential new items for future CRT examinations and they are not scored. Since these beta questions are randomized, the candidate must do the best for all 160 questions. The CRT examination has three content areas: Clinical Data, Equipment, and Therapeutic Procedures.

Based on the 2009 NBRC CRT Examination Matrix, there are 140 scored questions with **26 questions in Clinical Data** (*review data 4, collect and evaluate data 18, recommend procedures to obtain data 4*), **29 questions in Equipment** (*manipulate equipment 22, ensure infection control 3, perform quality control 4*) and **85 questions in Therapeutic Procedures** (*maintain records 5, maintain patent airway 7, remove bronchopulmonary secretions 4, achieve adequate respiratory support 8, evaluate and monitor patient response 15, independently modify therapeutic procedures 18, recommend modifications in the respiratory care plan 17, determine the appropriateness of respiratory care plan 4, initiate, conduct and modify procedure in an emergency setting 3, assist physician 2, initiate and conduct pulmonary rehabilitation and home care 2*).

The time limit for the CRT examination is three hours (180 minutes) from start to finish (note: not all candidates in the same testing center start at the same time). This time limit means that the candidates have an average of **1 min and 7.5 sec** for each item on the CRT examination. It is important to note that the practice or CRT self-assessment examinations have only 140 questions - 20 less than the *actual* CRT examination. In other words, there is more time (1 min 17 sec) for each question in the SAE.

#### Distribution of Questions in the Actual CRT Examination by Content Areas

Examination	Clinical Data	Equipment	Therapeutic Procedures	# of Questions
CRT	26	29	85	160 (140 + 20 beta)

For the CRT exam, the distributions of examination questions based on cognitive levels are: 35 recall questions, 74 application questions, and 31 analysis questions. Note that 75% (105/140) of the questions on the CRT examination are at the higher cognitive levels.

#### Distribution of Questions in the Actual CRT Examination by Cognitive Levels

Exam	Recall	Application	Analysis	# of Questions	Time Limit
CRT	35	74	31	160 (140 + 20 beta)	3 hours

The NBRC uses a scaled score of 75% for its CRT examinations. A scaled score is used to equilibrate different forms of CRT examinations which may be “harder” or “easier.” The scaled score may be higher or lower than the raw (actual) score.

### **How Is the CRT Examination Developed?**

Every five years, the NBRC conducts job analyses to assess the current practice of the respiratory care profession. From the job analyses, the content areas are developed. Question item writers (e.g., educators who are not members of the NBRC Board of Trustees) are contracted to write new or replacement questions based on the content areas and the respective cognitive levels (recall, application, and analysis).

For each question the item writer also provides one correct answer, three incorrect answers and the references to support the correct answer. They are subsequently reviewed by a Panel of Experts (not members of the NBRC Board of Trustees) and then by the NBRC CRT Examination Committee. The Panel and Examination Committee review all submitted questions for fitness in the content and cognitive levels and quality of questions based on accuracy, clarity, standard of practice and other writing and readability elements. The accepted items are placed in a pool as pretest items that are later used as examination items in different forms of the actual CRT exam.

The NBRC staff assembles the online examination based on the prescribed distribution of question items (i.e., content areas and cognitive levels). For each five-year cycle of job analyses, several forms of the CRT examinations are available. These forms are not entirely different

examinations but vary by a percentage of the questions in the examination. The questions and answers are randomly presented to each candidate during web-based administration of the exam.

**Implementation of the CRT Examination Matrix** - The NBRC began using the current CRT exam matrix on July 10, 2009.

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