Study Guide

International Licensing Examination for Hearing Healthcare Professionals

Prepared by:

International Hearing Society

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Revised 10/1/12

International
Hearing
Society

Dear Test-Taker,

Welcome to the hearing healthcare profession!

The purpose of this study guide is to help you prepare for the licensing examination. Be sure to read this document thoroughly. If you have any questions, please contact your state/provincial licensing body directly.

You will be taking the International Hearing Society's new International Licensing Examination for Hearing Healthcare Professionals. Licensing bodies and candidates participating may experience an extended wait time before receiving test results.

There will be one hundred and five (105) multiple-choice questions on the exam form. This examination utilizes dichotomous scoring, meaning the answer selections are either right or wrong (0,1). You will earn (1) one point for getting the question correct. You will earn (0) zero points for getting the question wrong (incorrect). There are a few questions on the exam form that request selection of two answers. The candidate must select two (both) answer options ***correctly*** *to earn the 1 point for the question. This was somewhat confusing with our explanation that each question only has one correct answer. Please refer to the sample test question on page 11 of this study guide. You will receive a score based on ninety (90) operational (scored) items. A score report will be provided to the licensing body directly.*

Candidates and licensing bodies will experience an extended wait time before receiving test results. This is because adequate time must be allotted for standard setting.

All inquiries regarding the status or results of your examination should be directed to the state/provincial licensing office, not to the International Hearing Society.

We wish you the very best.

Sincerely,
International Hearing Society

International Hearing Society
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Please note: Use of this guide does not assure you a passing score on the examination.

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Introduction

About the International Hearing Society (IHS)

The International Hearing Society (IHS) is a membership association that represents hearing healthcare professionals worldwide.

Overview
IHS members are engaged in the practice of testing human hearing and selecting, fitting and dispensing hearing instruments and counseling patients. Founded in 1951, the Society continues to recognize the need for promoting and maintaining the highest possible standards for its members in the best interests of the hearing impaired it serves.

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About the Study Guide

The purpose of this study guide is to help you prepare for the International Licensing Examination for Hearing Healthcare Professionals. Use this opportunity to become familiar with some of the various question formats utilized in the exam.

The study guide is not intended to represent the entire body of knowledge, nor does it present all possible types of questions and item-styles that may appear in the examination. It is, however, a sample of typical items and item-styles used in the exam. Candidates are strongly advised to become familiar with these multiple-choice item-styles, and to use the guide to learn how to handle this type of exam format.

The purpose of this guide is not to give the actual questions contained in the examination, but to familiarize you with the different question types and competency areas that will be tested. The questions are representative of the style and content of the questions used on the current International Licensing Examination for Hearing Healthcare Professionals and are based on the 2010 Competency Model of the International Hearing Society.

As with all examinations, be sure to read all instructions carefully before you read the sample questions. When you complete the questions, stop and check your responses. The purpose of this exercise is to give you the actual format of the International Licensing Examination for Hearing Healthcare Professionals.

About the Licensing Examination

The International Licensing Examination for Hearing Healthcare Professionals is a proprietary exam which is owned and copyrighted by the International Hearing Society.

This examination is intended to provide one of many tools needed in a licensing process. It assists the state/provincial licensing body in their responsibility to identify entry-level professionals whose knowledge and clinical skills meet or exceed basic expected professional standards.

Please note: Use of this guide does not assure you a passing score on the examination.

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Examination Policies

The International Hearing Society (IHS) subscribes to all US, Canadian and other international laws regarding testing policies, standards, and practices; including candidate rights to fair-testing, information accuracy and privacy, and the right-to-know and the right-to-appeal a pass/fail decision. IHS requires that special testing accommodations be made available to candidates with disabilities upon request and proof of disability as per US law.

Non-Discrimination Policy

No candidate shall be denied eligibility for the International Licensing Examination because of age, sex/gender, sexual preferences, marital status, religious preference, nationality, race or physical disability, except when a physical disability can effect the level of professional service provided to patients/clients.

Persons with disabilities who need special testing accommodations should submit their request, in writing with medical documentation, to the state/provincial licensing office.

Examination Administration

Exam materials are provided to participating licensing bodies as a contracted service and through these bodies to eligible candidates. It is understood that these materials are to be used as agreed upon and intended. All exam materials are to be returned to IHS for proper storage or disposal.

On the day of the scheduled exam, candidates must report to the exam site at the published time, prescribed by the licensing body. A maximum of two (2) hours will be provided for completion of the written exam.

Candidates may not carry any papers, briefcases or other personal belongings to the exam site. Calculators are not permitted. Purses must be placed on the floor under your chair.

You will be given a sealed exam booklet, Scantron answer sheet and a blue ink pen for marking the answer sheet. Do not break the seal on the exam booklet until you are told to do so. Please treat your answer sheet with care. Do not press the pen so hard that it punctures a hole through the answer sheet. Do not fold or crumple your answer sheet. The Scantron answer sheet contains five (5) possible answers, however the exam questions (items) only contains four (4) possible answers. Please do not use the answer "e", the fifth answer option on the Scantron answer sheet.

*** IMPORTANT ***
A few items on the exam form request selection of (2) two answers. There are (4) four answer options (a, b, c, and d). You must select (2) two answer options **correctly** (both correct answer options) to get the item correct, and therefore earn 1 point for that item/question. If you only select one answer option, you will get the question wrong

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(incorrect) and therefore earn 0 points for that item/question. If you select one correct answer option, and one incorrect answer option, you will get the question wrong (incorrect) and therefore earn 0 points for that item/question. *You must choose both correct answer options (two correct answers).*

Here is an example from the Sample Test Questions in this Study Guide:

1. Which two actions must a hearing healthcare professional perform before testing an existing patient's/client's hearing?

   A: clean hands in view of patient/client *
   B: clean patient's/client's hearing instruments
   C: clean patient's/client's canal of obstructive cerumen
   D: clean or replace speculum from otoscope *

In order to get this item correct, and therefore earn (1) one point for this question, you must choose A *and* D.

Examination Composition

This examination was developed by practicing professionals in the field of hearing instrument sciences. These individuals volunteered their time and expertise to this project under the guidance of a test development and psychometric services company.

During the development stages of this examination, a job-analysis survey was distributed to hearing dispensing professionals. From the survey data, a competency model was developed.

The International Licensing Examination for Hearing Healthcare Professionals consists of 105 multiple-choice items. Questions from each competency area are included in the examination form. This requires candidates to answer questions from each of the competency areas. Please refer to the Competency Model included in this guide.

Examination Scoring

The test form will be comprised of one hundred and five (105) items (test questions). Test-takers will receive a score based upon their performance on the resulting operational form.

The resulting operational form will be comprised of 90 operational (scored) and 15 pilot (non-scored) items/test questions. Administering pilot items with the operational form will allow IHS to collect data on new items and assemble subsequent operational forms without the inconvenience and expense of administering additional exam forms.

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This examination utilizes dichotomous scoring, meaning the answer selections are either right or wrong (0,1). The test-taker will earn (1) one point for getting the question correct. The test-taker will earn (0) zero points for getting the question wrong (incorrect). In our research we found this scoring method to not only be the standard for healthcare exams but for competency exams as a whole. There is legal precedence with dichotomous scoring that provides peace-of-mind for licensing bodies working with the issue of professional competency.

A score report will be provided to the licensing board office. All inquiries regarding the status or results of your examination should be directed to the state/provincial licensing office, not to the International Hearing Society.

Right of Appeal

Any candidate may appeal a pass/fail decision with the state or provincial licensing body. Various rules and fees may apply.

All inquiries regarding the status or results of your examination should be directed to the state/provincial licensing office, not to the International Hearing Society.

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Competency Model

		% of Total Exam
Section 1	**Observe proper sanitary procedures.**	**3.33%**
Objective 1.1	Observe sanitation protocols to protect the patient/client and the practitioner.	
Objective 1.2	Observe protocols to clean and sanitize equipment and surfaces in the practice environment.	
Section 2	**Perform hearing evaluation.**	**20.00%**
Objective 2.1	Identify the patient's/client's needs.	
Objective 2.2	Perform a visual inspection of the patient's/client's ear(s) to identify contraindications for proceeding with the hearing evaluation.	
Objective 2.3	Perform tympanometry.	
Objective 2.4	Perform audiometric testing.	
Objective 2.5	Interpret evaluation results for the purpose of patient/client information, hearing instrument candidacy, referral, and/or communication with other healthcare professionals.	
Objective 2.6	Describe the anatomy and physiology of the human auditory system.	
Section 3	**Select appropriate amplification for the patient/client.**	**12.22%**
Objective 3.1	Identify limitations of the patient/client that impact the selection of style/type of amplification.	
Objective 3.2	Identify patient/client preferences for style/type of amplification.	
Objective 3.3	Identify electro-acoustic parameters for amplification.	
Objective 3.4	Identify patient/client lifestyle influences that impact selection of style/type of amplification.	
Objective 3.5	Recommend appropriate style/type of amplification to patient/client.	

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Section 4	**Perform accurate and safe earmold impressions.**	**13.33%**
Objective 4.1	Perform visual inspection of the patient's/client's ear(s) for otoblock placement.	
Objective 4.2	Select and place appropriate otoblock in patient's/client's ear.	
Objective 4.3	Take appropriate impression for style/type of acoustic coupler or ear plug.	
Section 5	**Fit and dispense hearing instruments.**	**13.33%**
Objective 5.1	Perform physical and/or electronic check of hearing instrument to verify it is as ordered and operating correctly.	
Objective 5.2	Fit hearing instrument using computerized algorithms or other appropriate methods.	
Objective 5.3	Place hearing instrument in patient's/client's ear and verify fit.	
Objective 5.4	Modify hearing instrument and/or earmold for comfort and proper acoustic performance.	
Section 6	**Perform validation and verification of hearing instrument fittings.**	**7.78%**
Objective 6.1	Perform validation of patient's/client's aided performance.	
Objective 6.2	Perform verification of the fitting of the hearing instrument.	
Section 7	**Provide counseling regarding living with hearing loss.**	**7.78%**
Objective 7.1	Discuss appropriate expectations of amplification with patient/client and family members/care giver.	
Objective 7.2	Discuss use of hearing instrument with patient/client and family members/care givers.	
Objective 7.3	Discuss coping strategies with patient/client and family members/care givers.	

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Section 8	Provide aural rehabilitation.	11.11%
Objective 8.1	Implement therapeutic adjustments.	
Objective 8.2	Discuss aural rehabilitation with patient/client.	
Objective 8.3	Discuss with family/care givers their role in aural rehabilitation.	
Objective 8.4	Discuss with patient/client environmental listening strategies.	
Objective 8.5	Educate the patient/client and family/care givers on use of assistive devices and accessories to complement the hearing instrument fitting.	
Objective 8.6	Recommend additional resources.	
Section 9	**Provide post-fitting patient/client and hearing instrument care**	**4.44%**
Objective 9.1	Provide ongoing care for patients/clients.	
Objective 9.2	Provide ongoing care and maintenance for hearing instruments.	
Section 10	**Investigate patient's/client's perceived problems with hearing instruments and take appropriate action.**	**6.67%**
Objective 10.1	Troubleshoot hearing instrument performance.	
Objective 10.2	Repair hearing instruments.	
	Total	**100.00%**

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Recommended Reference Material

- IHS' Distance Learning for Professionals in Hearing Health Sciences course
- *Introduction to Audiology* (11th ed). Martin, Frederick and John Clark. (2011). New York: Allyn & Bacon *
  Purchase online at www.pearsonhighered.com
- *Introduction to the Auditory System.* (2005) Livonia: International Hearing Society
- *Masking: Practical Applications of Masking Principles and Procedures (3rd ed.)* (1999) Livonia: International Hearing Society
- *Outcome Measures & Troubleshooting.* (2003) Livonia: International Hearing Society
- *Altering Behaviors: A Powerful Approach to Aural Rehabilitation.* (2004). Livonia: International Hearing Society
- *Audioprosthology: Hearing Instrument Selection, Fitting, and Verification.* (2008) Livonia: International Hearing Society
- *Digital Signal Processing for Hearing Aids.* (2006) Livonia: International Hearing Society
- *Infection Control in the Audiology Clinic (2nd edition).* Bankaitis, A.U and Robert Kemp. (2005) Missouri: Oaktree Products *
  Purchase online at www.oaktreeproducts.com
- *The Comprehensive Dictionary of Audiology:* Illustrated by Brad A. Stach, PhD (1997) Maryland: William & Wilkins

*New reference material

IHS textbooks are available for purchase at www.ihsinfo.org

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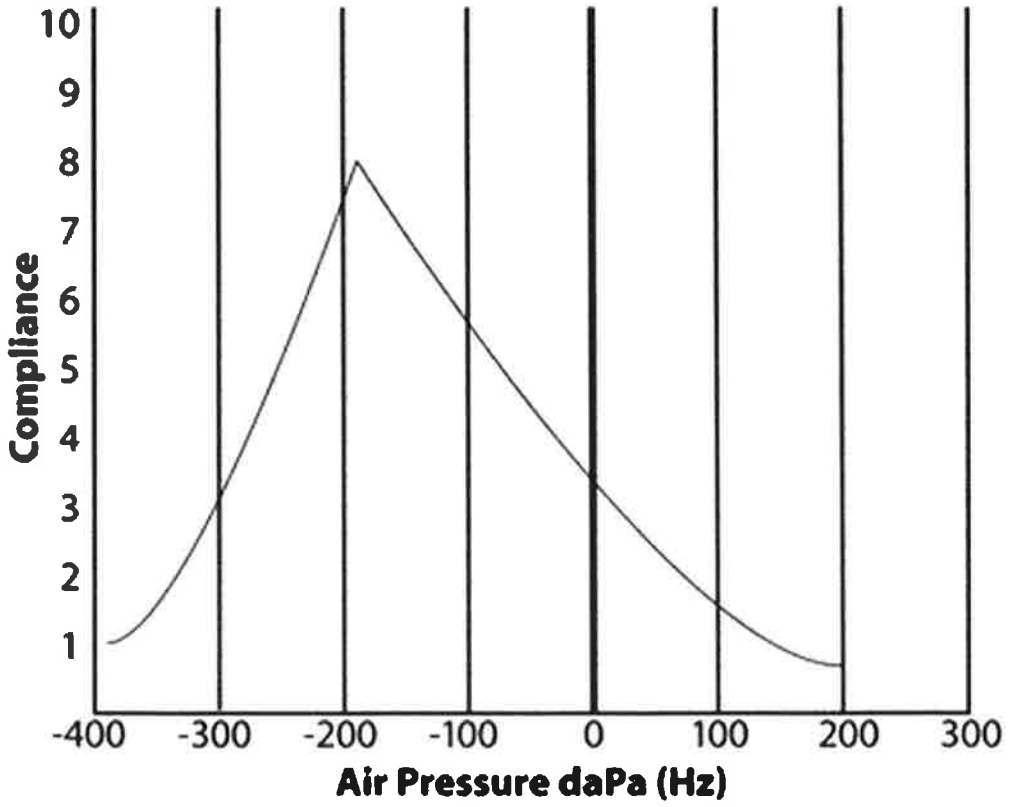
Sample Test Questions

The sample test questions are for informational purposes only. The sample questions are designed to familiarize you with the exam format and cannot be considered a measure of competency. Actual examination items (test questions) have been selected from each of the competency areas.

1. Which two actions must a hearing healthcare professional perform before testing an existing patient's/client's hearing?

   A: clean hands in view of patient/client
   B: clean patient's/client's hearing instruments
   C: clean patient's/client's canal of obstructive cerumen
   D: clean or replace speculum from otoscope

2. Refer to the exhibit.



   What tympanogram type is represented in the graph displayed in the exhibit?

   A: A
   B: A_d
   C: B
   D: C

3. Which factor will affect a patient's/client's acceptance and use of hearing instruments?

   A: presence of small children in home
   B: patient's/client's dominant hand
   C: patient's/client's cosmetic preferences
   D: frequency and duration of hearing instrument use

4. Why should an otoblock be placed just beyond the second bend of the ear canal during preparation for taking an ear impression?

   A: prevents the otoblock from moving during the impression process
   B: results in a complete impression of the canal cross section
   C: results in a complete impression of the outer ear
   D: prevents cerumen from interfering with the impression

5. Why should a hearing healthcare professional use the DSL I/O fitting formula instead of the NAL fitting formula to fit and adjust a hearing instrument that uses DSP?

   A: DSL-IO applies to non-linear instrumentation
   B: NAL uses the half-gain rule
   C: NAL requires a programmable circuit
   D: DSL-IO is an output formula

6. Which validation method can be effectively performed in a sound field environment?

   A: COSI
   B: IHAFF
   C: NU-6
   D: REIR

7. A hearing healthcare professional is counseling a patient/client about expectations of amplification. Which information should the hearing healthcare professional include in this hearing therapy?

   A: outside factors that can hinder understanding
   B: electronic parameters of the hearing instruments
   C: auditory practice and disability
   D: hearing instrument care and modifications

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8. A patient/client has been using an ITC hearing instrument for approximately 16 months. The patient/client has a new job that requires the use of a telephone with a headset. The patient/client is having difficulty understanding customers over the phone. What should the hearing healthcare professional recommend to the patient/client?

   A: add a clarifier circuit to the existing phone
   B: adjust volume to maximum while on the phone
   C: add an amplifier to the existing phone
   D: cover the other ear while on the phone

9. A patient/client complains that the hearing instrument works intermittently. After initial inspection, the hearing healthcare professional squeezes and taps on the case. Which problem does the hearing healthcare professional likely suspect?

   A: a receiver problem
   B: a battery problem
   C: an amplifier problem
   D: a wiring problem

10. A hearing healthcare professional makes a new earmold for a post-auricular hearing instrument. The new earmold fits tightly in the helix area. What is the most likely result of this fitting?

    A: a more comfortable and secure fitting earmold
    B: there will be less resonance and "down in a well" effect
    C: an increased likelihood of a sore spot in the ear
    D: the earmold is likely to work its way out of the ear

End of Sample Test Questions

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Answer Key to the Sample Test Questions

Below are the correct answers to the Sample Test Questions. Also provided is a reference to the section of the Competency Model and each objective.

1. Correct Answer: A, D
   Section 1: Observe proper sanitary procedures.
   Objective 1.1: Observe sanitation protocols to protect the patient/client and the practitioner.

2. Correct Answer: D
   Section 2: Perform hearing evaluation.
   Objective 2.5: Interpret evaluation results for the purpose of patient/client information, hearing instrument candidacy.

3. Correct Answer: C
   Section 3: Select appropriate amplification for the patient/client.
   Objective 3.2: Identify patient/client preferences for style/type of amplification.

4. Correct Answer: B
   Section 4: Perform accurate and safe earmold impressions.
   Objective 4.2: Select and place appropriate otoblock in patient's/client's ear.

5. Correct Answer: A
   Section 5: Fit and dispense hearing instruments.
   Objective 5.2: Fit hearing instrument using computerized algorithms or other appropriate methods.

6. Correct Answer: C
   Section 6: Perform validation and verification of hearing instrument fittings.
   Objective 6.1: Perform validation of patient's/client's aided performance.

7. Correct Answer: A
   Section 7: Provide counseling regarding living with hearing loss.
   Objective 7.1: Discuss appropriate expectations of amplification with patient/client and family members/care giver.

8. Correct Answer: C
   Section 7: Provide counseling regarding living with hearing loss.
   Objective 7.3: Discuss coping strategies with patient/client and family members/care givers.

9. Correct Answer: D
   Section 9: Provide post-fitting patient/client and hearing instrument care
   Objective 9.2: Provide ongoing care and maintenance for hearing instruments.

10. Correct Answer: C
    Section 10: Investigate patient's/client's perceived problems with hearing instruments and take appropriate action.
    Objective 10.1: Troubleshoot hearing instrument performance.

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Frequently Asked Questions (FAQs)

- **How many questions are on the examination?**
  The exam form is comprised of 105 multiple-choice pilot items.

- **How much time is given for the examination?**
  We allow one hundred and twenty (120) minutes to complete the test.

- **How will the exam be scored?**
  The examination utilizes dichotomous scoring, meaning the answer selections are either right or wrong (0,1). The test-taker will earn (1) one point for getting the question correct. The test-taker will earn (0) zero points for getting the question wrong (incorrect). In our research we found this scoring method to not only be the standard for healthcare exams but for competency exams as a whole. There is legal precedence with dichotomous scoring that provides peace-of-mind for licensing bodies working with the issue of professional competency.

- **Choosing the correct answer or answers.**
  A few items on the exam form request selection of (2) two answers. There are (4) four answer options (a, b, c, and d). You must select (2) two answer options **correctly** (both correct answer options) to get the item correct, and therefore earn 1 point for that item/question. If you only select one answer option, you will get the question wrong (incorrect) and therefore earn 0 points for that item/question. If you select one correct answer option, and one incorrect answer option, you will get the question wrong (incorrect) and therefore earn 0 points for that item/question. *You must choose both correct answer options (two correct answers).*

- **What is an operational form?**
  A form comprised largely or entirely of items approved for operational use (i.e., scored items that contribute to the candidate's test score and pass/fail result) and that is used to score candidates and provide a pass/fail result.

- **What is the passing score?**
  Standard setting is the process of refining the performance expectations of the minimally qualified candidate (MQC) and translating that performance expectation into a cut score (passing score) for the test. Our psychometrician will facilitate a modified Angoff standard setting study. The modified Angoff is a test-centered standard setting methodology. The modified Angoff methodology is widely supported within the testing industry and commonly used for determining cut scores for licensure tests.

  Candidates will receive a score based upon their performance on the operational form. If the candidate score is at or above the cut score, the candidate passes the test. If the candidate score is below the cut score, the candidate fails the test. The licensing board is responsible for determining the pass/fail status of the candidate and for communicating the candidate's results.

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Furthermore, many licensing boards currently require applicants to achieve a "passing score on the national exam". We recommend that all licensing bodies adopt such language to prevent the need to open regulations and/or statutes to reflect subsequent changes in the examination process, and review related laws and rules to determine other necessary updates. We hope that this notice and additional time to make necessary changes will be of assistance to you. Our government affairs staff is available to assist as needed.

- **What is a cut score?**
  The minimum score required to pass the test. Cut score can be expressed as a raw score, a percent score, or a scaled score.

  IHS will use a modified Angoff standard setting study to determine an appropriate cut score for the first operational form. Cut scores for subsequent operational forms will be determined via a statistical equating process.

- **What is a score report?**
  A confidential report provided by IHS to the licensing body containing information that documents the candidate's test results.

- **What information is on the score report?**
  IHS will provide each licensing body with a score report that lists each candidate in the licensing board's jurisdiction who took the test, the candidate's score, and the candidate's raw score for each section of the competency model.

  Candidate score can be expressed as a raw score, percent score, or scaled score. If the candidate score is at or above the cut score, the candidate passes the test. If the candidate score is below the cut score, the candidate fails the test. The licensing board is responsible for determining the pass/fail status of the candidate and for communicating the candidate's results.

  IHS and the licensing boards understand that the raw cut score can vary from form to form although the performance standard associated with the raw cut score remains constant.

- **What is an MQC?**
  MQC stands for Minimally Qualified Candidate. The MQC is a conceptualization of the candidate that possesses the minimum knowledge and skills to just meet our expectations of a licensed individual.

- **What is a candidate score?**
  The score achieved by a candidate. Candidate score can be expressed as a raw score, percent score, or scaled score.

  The candidate score is used to determine if the candidate passes or fails the test. If the candidate score is at or above the cut score, the candidate passes the test. If the candidate score is below the cut score, the candidate fails the test.

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- **What topics will the exam cover?**
  This assessment is based on a new competency model (exam blueprint). The exam blueprint identifies the competencies against which the candidate will be measured. It also indicates the weight (%) of each competency or group of competencies. The competency model is in this study guide for your review.

- **What textbooks and reference materials are recommended for this examination?**
  A list of reference material is listed in this study guide.

- **Which licensing bodies are currently using the IHS licensing assessment?**

U. S. States:

1. Alabama
2. Arizona
3. Arkansas
4. Connecticut
5. Delaware
6. Florida
7. Georgia
8. Hawaii
9. Idaho
10. Illinois
11. Indiana
12. Iowa
13. Kentucky
14. Louisiana
15. Maine
16. Maryland
17. Massachusetts
18. Minnesota
19. Mississippi
20. Missouri
21. Montana
22. Nebraska
23. Nevada
24. New Hampshire
25. New Jersey
26. New Mexico
27. North Dakota
28. Ohio
29. Oklahoma
30. Oregon
31. Rhode Island
32. South Carolina
33. South Dakota
34. Tennessee
35. Texas
36. Utah
37. Virginia
38. Washington
39. Wyoming

Canadian Provinces

1. British Columbia – Canada
2. Manitoba – Canada
3. Nova Scotia – Canada
4. Ontario – Canada

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