

Data Innovations, Inc.

Competency Assessment Module For EP Evaluator®, Release 9

Purpose:

This module has the primary purpose of administering tests for competency assessment. It will also track scores of those taking the tests as well as the fraction of correct results for each question asked.

Major features:

1. For each area, questions will be randomly selected from a much larger pool of questions so that each candidate will see a different set of questions in their quiz.
2. Each facility will be able to control the content of their tests:
 - a. They will be able to select and/or edit questions from the EP Evaluator stock questions.
 - b. They will be able to add questions of their own.
3. The program will grade the test for each participant.
4. The program will count the number of correct answers for each question. If the number of correct answers for a given question is very small, that question may be poorly worded or too difficult for the target audience.
5. There will be one correct answer which is selected from the available choices.
6. Images may be a part of the question, not one of the multiple choices.
7. The correct answer complete with reference may be displayed after the question has been answered.

Help needed

You can help in two different ways:

1. Submit questions. We need lots of questions for the tests. We would like to have 5 to 10 times the number of questions in the pool as the number of questions we will pose to any one candidate. In short, we need thousands of questions.
2. Subject Matter Expert. We need experts in each field to vet the questions (i.e. to edit them for clarity and brevity and to ensure that they are meaningful and the answers are accurate.)

Questions needed:

1. A question should have the following properties:
 - a. It must be a multiple choice question but only one of those possible answers may be correct. The minimum number of answers is two (true/false). There is no theoretical maximum number of answers. However we recommend that there be no more than 6 possible.
 - b. The correct answer must be specified.
 - c. Images may be included.
 - d. Ideally, there will be an explanation why the answer is correct complete with reference in a readily available source (i.e. a text book or something else readily available to clinical laboratories.) The reason for this is that some facilities may use these exams as a teaching tool.
2. We will keep track of all the questions you submit.
3. Our initial plan is to accept questions into a broad range of topics in clinical pathology (see list below).
4. Lab facility options:
 - a. Create and edit categories
 - b. Move questions between categories
 - c. Add and edit questions.
5. Question categories
 - a. Our plan is to support exams in certain subject areas. Questions in a given subject area may be selected from multiple topics. For example, for a chemistry exam, 5 or 10 questions each could be selected from categories such as a specific instrument, biochemical analytes, TDM, DAU and so on for a total of 50 to 100 questions in the exam.

Topics

Our initial effort is to cover the major disciplines in clinical pathology. We are open to suggestions for other topics addition to those listed below. My expectation is that this list of topics will be expanded by our contributors. This list is to give you an idea of how comprehensive this module is expected to be. The official list of topics and subtopics may be found on our website (dgrhoads.com).

1. General laboratory
 - a. Statistical concepts (reference intervals, MDP's, TEa)
 - b. Overall process concepts
 - c. Automation – Specimen preparation and transport
 - d. Lab computer systems (LIS's and middleware)
 - e. Safety
 - f. Informatics
2. Chemistry and Toxicology
 - a. Metabolic analytes

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- b. Drugs of Abuse
 - c. Therapeutic Drugs
 - d. Immunochemical analytes
 - e. Immunology analytes
 - f. Instrument-specific questions
3. Toxicology
 - a. Drugs – TDM
 - b. Drugs – DAU
 4. Instrument specific questions for many instrument systems.
 5. Urinalysis
 6. Hematology and Clinical Microscopy
 - a. CBC
 - b. Differentials
 - c. Urinalysis
 7. Coagulation
 8. Diagnostic Immunology
 9. Microbiology
 10. Transfusion Medicine
 11. POC testing
 12. Respiratory Therapy
 13. Clinical Laboratory topics for Specialty Areas
 - a. Veterinary medicine
 - b. Pediatric medicine
 - c. Pharmaceutical clinical research
 14. Molecular Oncology
 - a. Cytogenetics
 - b. Genetics
 15. Specimen Acquisition
 - a. Phlebotomy
 - b. Specimen Preparation
 16. Lab Management
 - a. Managing money
 - b. Managing personnel
 17. Quality Assurance and Quality Control
 - a. Method evaluation and validation
 - b. Quality control
 - c. Auto-verification
 - d. Procedure manuals and document management
 - e. Proficiency surveys
 - f. Inspections
 - g. EP Evaluator

Rules for those Submitting Questions

1. Questions must be offered to us in one of the file formats listed below. Office 2007 formats are not acceptable. Check with us for other formats.
 - a. Microsoft Word 2003 (doc).
 - b. Microsoft Excel 2003 (xls).
 - c. Microsoft PowerPoint 2003 (ppt).
 - d. Adobe Acrobat (pdf).
2. Images:
 - a. Images may either be embedded in a Word or PPT document or be separate files in either JPG or PNG format.
 - b. Expect that the final size of the displayed image will be in the range of two to four inches (5-10 cm) on a side.
 - c. If the file is not embedded in the document, make clear which question uses each image. Limit of one image per question.
 - d. When an image is provided, it must be referenced by the question. An image may not be an answer.
 - e. Part of the image may be referenced by a question, such as a portion of a graph, or a particle in a microscopic image. In that case, the portion of the image must be clearly identified such as surrounded by a box or circle.
3. The source must be specified for each submission. Possible sources are:
 - a. "Developed question myself". (acceptable)
 - b. "Question taken from tests administered in our lab". (acceptable)
 - c. "Question derived from reviewing a textbook". (acceptable as long as the text is not quoted verbatim in the question.)
 - d. "Question quoted verbatim from any source including a book, a scientific paper or magazine article or a competitor such as the CAP". (not acceptable)
4. Submission Process
 - a. Email your submissions to competency@dgrhoads.com
 - b. Include the transmission form with each email. A blank version of the transmittal document is available at www.dgrhoads.com.
 - c. The size of any single email submission shall not exceed 1 MB.
 - d. Fax a signed copy of the transmission form to us at (802) 658-2782.
 - e. Questions in a single submission must be on a single topic.
 - f. Multiple submissions are permissible from the same person and/or institution.
5. All decisions regarding questions that are accepted are final. Possible reasons for not accepting questions include: duplication of a previous question, inaccuracy and inappropriateness.
6. Data Innovations, Inc. reserves the right to edit all questions for clarity, accuracy and brevity.

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