Exam Guide

Welcome to the tutorial of the CEC exam. This tutorial provides some useful information that introduces you to the computer testing environment. It is very important to read this guide carefully as it will give you an opportunity to familiarize yourself to each future before using it in questions that will be scored.

Please open the demo: <u>http://center.cec.com.cy/</u> (username: demo, password: 999999)

Your score is determined by the number of questions you answer correctly. Therefore it is to your advantage to answer every question. If you are unsure of your answer, you can mark the question to review if time permits.	
To mark a question	
Click the Mark button.	Mark
To unmark a question Click the Marked button. This button will only appear if you have marked the question.	Marked
Unmark each question when you are satisfied with your answer choice. If you forget to unmark the question, it's OKAY. The scoring process does not differentiate between marked and unmarked questions.	
You can also leave a question unanswered (incomplete). Marked and Incomplete questions will be highlighted in a Review Questions screen before you exit the exam, and you will have the opportunity to go back to those if you have time remaining.	

Navigating through the exam	
You can use the mouse to move through the exam one question at a time. Buttons appear at the bottom of the screen.	
To move backwards Click the Previous button.	Previous
To move forwards Click the Next button	Next >

Reviewing items	Revi	ewing	items
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Questions	Marked	Incomplete	Complete
🖉 Question 1			Yes
🔽 Question 2			Yes
🖬 Question 3		Yes	
Question 4	Yes	Yes	
Question 5	Yes		Yes

At the end of the examination, you will see a scrollable listing of all the question numbers. This list displays each question number and indicates if the question has been marked for review, completed or skipped.

Review All

Review Marked

Review

Incomplete

To review questions
Click on the Review All button. You will be moved to the first question. Clicking on the Next button will cause you to move to the next
question. You can also double-click on the question number in the list to move to a particular question.

To review marked questions Click on the **Review Marked** button. You will be moved to the first marked question. Clicking on the **Next** button will cause you to move to the next marked question.

To review incomplete questions

Click on the **Review Incomplete** button. You will be moved to the first incomplete question. Clicking on the **Next** button will cause you to move to the next incomplete question.

Click on the 'Next' button to continue.

Description of Assessment Tests

Verbal reasoning (10 questions in 20 minutes)

Verbal reasoning test consists of small passages of text, after which candidates will find a number of statements. The candidates' task is to evaluate which of the four statements given is most likely true in terms of the passage itself. There is one, and only one, correct answer to each question, and this answer is the statement which is most true in terms of the information given in the passage. Candidates will need to work both quickly and accurately. For some questions, most of the statements may be somewhat true. Candidates' task is to indicate the statement that they believe to be most true in terms of the passage by using the given information and not any prior knowledge they may have.

Numerical reasoning (10 questions in 25 minutes)

This test consists of a series of graphics (charts) followed by a passage and five possible replies. Candidates' task is to calculate the correct result. Each question is based on a numerical scenario (tables, charts, graphs and including textual instructions) linked to five different answer options. There is one, and only one, correct answer to each question. Candidates will need to work both quickly and accurately. Candidates must use the information in the passage and graphics and not any prior knowledge they may have.

Abstract reasoning (10 questions in 15 minutes)

Each question consists of a series of diagrams that follow a logical sequence or contain a set of underlying rules. Candidates' task is to choose the next diagram in the series. After each question, there are a number of different answer options. Each question is based on a sequence of five different graphics linked to five different answer options. There is one, and only one, correct answer to each question.

Web developer test (40 questions in 30 minutes)

The web developer overview test consists of small questions relating to prevalent web technologies after which candidates will find a set of possible answers. Only one answer is 'correct' at all times and candidates have to answer based on their current knowledge. The test covers generic subjects relating to writing software for the web while trying to be language-agnostic.

The web developer overview test examines whether the candidates understand how the web works and if they have a good grasp of the core technologies that nowadays compromise the web-sphere, with subjects touching areas like HTML, CSS, jQuery, HTTP, Client-Server patterns, AJAX, and Databases.

Web developer test examples:

Example1.

- 1. You attempt to access a web resource with URI <u>http://www.example.com/api/users/</u> <u>and the web</u> server responds with an HTTP message with status code "403". What does that mean?
 - a. The resource could not be found on the server
 - b. You do not have enough permissions to access the resource
 - c. An internal server error occurred while accessing the resource
 - d. The request was successful and the resource has been returned

Example2.

- 2. To create a table column in HTML, what tag do you need to use?
 - a.
 - b. >
 - c. >
 - d. <col>

Example3.

- 3. Which SQL statement is used to insert new data in a database?
 - a. INSERT NEW
 - b. ADD NEW
 - c. INSERT INTO
 - d. ADD ROW

Demo

Demo test has been uploaded to CEC web page with a username and password. Please check carefully and make sure you have understood the test. You can confirm answers using the table below. No explanations regarding the test will be given during the exam.

Answers for your demo test:

Test	Answers
Verbal Reasoning Q1	A
Verbal Reasoning Q2	A
Numerical Reasoning Q1	В
Numerical Reasoning Q2	A
Abstract Reasoning Q1	С
Abstract Reasoning Q2	С

Explanations for Numerical Reasoning and Abstract Reasoning:

Numerical Reasoning Q1 (Answer: B)

Data Interpretation: To answer this question we need to calculate the percentage of total land cover that is cropland in Germany and in the four countries and regions listed. To do this we divide the area of cropland by the total land cover, and multiply the answer by 100. We then need to look at the answers, to see which is closest to the value for Germany.

Calculation: Percentage of cropland in EU-27: (1062.4/4306.6)*100 = 24.6691%. Percentage of cropland in Bulgaria: (35.7/110.9)*100 = 32.191%. Percentage of cropland in the Netherlands: (9.6/41.5)*100 = 23.1325%. Percentage of cropland in the Czech Republic: (26.9/78.9)*100 = 34.0938% Percentage of cropland in Germany: (118.3/357.1)*100 = 33.128%. Difference of Czech Republic from Germany: 34.0938-33.128 = 0.9658. Difference of Bulgaria from Germany: 33.128-32.191 = 0.937 (closest).

Shortcut: The shortcut here is to use estimation to realise that Germany, Bulgaria and the Czech Republic are all close to one third, whereas the EU-27 and the Netherlands are close to one quarter, and so can be discounted.

Common Error: It is a common error to not check the answers once the percentages have been found, and to give an incorrect answer of the Czech Republic.

Numerical Reasoning Q2 (Answer: A)

Data Interpretation: To calculate the proportion of world production in Spain in 2014, we need to calculate the world production in 2013 first. We can use any of the figures, but the most accurate is for the EU-27 (as the numbers are largest). We need to divide the amount by the decimal form of the percentage to get the total world production. We then need to work out the production in Spain in 2014, which is double to current amount. We then calculate the total world production for 2014, which is the production for 2013 + the production in Spain in 2013 (the increase for 2014). Finally we divide the production in Spain in 2014 to give the share.

Calculation: World production in 2013: 8870/0.2429 = 36517 thousand tonnes Production in Spain in 2014: $1070^*2 = 2140$ thousand tonnes World production in 2014: 36517+1070 = 37587 thousand tonnes Share of world production in Spain in 2014: 2140/37587 = 0.05693444935 = 5.69%.

Shortcut: It is possible here to analyse the question, and realise that if world production had stayed the same the percentage would be doubled (5.86%), but, as world production has gone up, the percentage must be less than this, and the option less that this is the 5.69%.

Common Error: A common error is to believe that the percentage is just doubled (5.86%). However, as world production increases, this is not correct.

Abstract Reasoning Q1 (Answer: C)

Level #1: The color of the central circle alternates between white and black in each turn. Level #2: Observing the first instance, the lines on the left side of the shape rotate 45 degrees clockwise on each turn. Level #3: The line on the upper right side of the square rotates 45 degrees counter-clockwise on each turn. Level #4: The line on the lower right side of the square rotates 45 degrees clockwise on each turn.

Abstract Reasoning Q2 (Answer: C)

Level #1: The shapes rotate clockwise on each turn. Level #2: The fill of the broken circle alternates between white and diagonal lines in every turn. Level #3: The fill of the trapezium alternates between black and white in every turn. Level #4: The fill of the star alternates between white, black and diagonal lines in every turn.