

Bennett Mechanical Comprehension Test[®] (BMCT-II)

FAQs



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Bennett Mechanical Comprehension Test®–II

Frequently Asked Questions

The Bennett Mechanical Comprehension Test–II (BMCT–II) launched in September 2014. This document, updated in 2017, provides answers to the most frequently asked questions about its features and administration.

About BMCT–II Features

What are the most important features in the BMCT–II?

- BMCT–II contains 55 items that are randomly generated from a bank of over 300 items.
- Reducing the number of items from 68 to 55 shortened administration time by 5 minutes, compared to BMCT–I*.
- BMCT–II includes color artwork with more contemporary items.
- BMCT–II is suitable for supervised or unsupervised testing scenarios. The development of a bank of items ensures that no two applicants receive the exact same set of questions, protecting the integrity and difficulty level of the test.
- BMCT–II is now available in US English, UK English, French, French Canadian, Dutch, Spanish, and Latin American Spanish.

What norms are available for BMCT–II?

- Engineers
- General Labor
- Industrial/Technical Sales
- Installation/Maintenance/Repair
- Machine Operators/Machinists Mechanics
- Skilled Trades Vocational/Technical Students
- A custom norm group for your organization can be developed by TalentLens Research Services. Contact us for details.

What process did Pearson use to create the BMCT–II norms?

The normative data were collected from 2012 through 2014 via online administration. The norm groups are based on a diverse and balanced distribution of the industries and occupations in which the BMCT most frequently used.

Can clients use their own BMCT–I norms for the new BMCT–II?

Due to the different way of calculating scores and the reduced number of items in the BMCT–II, the BMCT–I raw scores do not equate to the BMCT–II raw scores.

* BMCT–I collectively refers to previous forms of the Bennett Mechanical Comprehension Test including Form S, Form T, and Form S and T (Randomized)

Score Interpretation

How do you ensure that the randomly generated tests presented to candidates are equivalent in terms of test difficulty and item content?

Each item is coded by difficulty on a finely incremented scale and assigned a difficulty level from 'easy' to 'high'. Tests are generated with equivalent numbers of items in each difficulty category. Consistency in content is also achieved by coding items in terms of the content assessed (e.g., Electricity, Heat, Hydraulics) and specifying a set amount of each item type per test. The tests may differ slightly in difficulty overall, but this is taken into account by the online scoring system.

What scores are available on candidate profile reports?

Number Correct, T-score, STANINE score, and STEN score are all reported in the Additional Technical Information section of the candidate's profile report. Item-banked tests produce a theta score that takes into account the difficulty level of each item, therefore number of correct responses (raw score) should not be used to make hiring decisions alone. Instead, use the percentile rank or a standardized score because these scores take into account the item-difficulty differences of the administrations. Candidate theta scores, also called ability scores, are available in your online account status/score report dashboard.

Why aren't raw scores presented in the profile reports?

The raw score for BMCT-I was the total number of correct responses. As examinees completing the BMCT-II are presented with varying sets of items that differ slightly in difficulty, little can be inferred from traditional raw scores. The scoring system takes into account the exact difficulty level of the items each person has completed to calculate an estimate of ability— a theta score, which is converted to a percentile for interpretation purposes.

Does the BMCT-II revision affect the Occupational Solutions assessments that include mechanical

test items? No. The mechanical items delivered in the Industrial/Technical Sales, Maintenance, and Production Employee Occupational Solutions are not impacted by the revision.

How should I transition from using the original Bennett norms to the BMCT-II norms?

If you are already making hiring or promotion decisions using a norm group in the original Bennett product, continue using the original Bennett until there is an appropriate time to make the transition to the BMCT-II product. An appropriate time would be after you have made a hiring decision for a specific position and will be testing a new group of applicants for another position.

What if I have already determined cut scores based on the original Bennett scales?

You may continue to use the BMCT-I until you collect sufficient data with the BMCT-II to establish new cut scores. Do not use cut scores that you created for the original Bennett with the BMCT-II.

What research has been conducted with the new BMCT-II?

We have carried out construct validity, criterion validity, and parallel form reliability/equivalence studies between BMCT-I and BMCT-II which are described in the new User's Manual.

Is a paper form of BMCT-II available?

A paper form is currently available for the BMCT-II for US English only.

What can be done if there is concern that an applicant has cheated on the unsupervised BMCT-II?

If you suspect that a candidate cheated on the assessment, you may retest the candidate in a supervised setting. The decision to retest a candidate is up to the customer.

BMCT-II Administration

What happened to BMCT-I assessments completed, when the BMCT-II was released?

All BMCT-I assessments completed after September 2014 are still scored with the BMCT-I norms. Reports for these assessments will always reflect the percentile based on the original Bennett norm group. BMCT-I scores cannot be transferred to the BMCT-II to generate the new BMCT-II report. Bennett reports will be retained in your online account in accordance with local data protection laws.

Can a candidate's BMCT-II results be re-scored using a different norm group?

Administrators are encouraged to select the most appropriate norm group when assigning a test to a candidate. Add-on score reports are available in your catalog to re-score the candidate in a different norm group.

Is the BMCT-I still available online?

Effective January 2017, BMCT-I is no longer available for purchase in the Pearson catalog.

Can the BMCT-II be completed on a mobile phone?

We recommend that the BMCT-II be completed on a desktop or laptop computer with a dependable internet connection.

Can BMCT-II be linked from the Pearson test platform for administration via an API/ATS?

Yes, contact Customer Support at 888.298.6227 for more information.

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