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HU TOPS Core Skills Test

HU Core Skills Test is designed to shortlist the students for HU TOPS. Shortlisted HU TOPS applicants will be facilitated to apply for HU admissions from HU TOPS Platform as highlighted in the selection process.

HU TOPS Core Skills Test has two competent

1. English Competency Test
2. Mathematics Competency Test

Which Test Do You Need to Take?

- All those students who plan to apply for the programs of School of Arts, Humanities and Social Sciences at Habib University i.e. either for BSc (Honours) Social Development and Policy or BA (Honours) Communication Studies and Design will take English Competency Test only.
- All those students who plan to apply for the programs of School of Science and Engineering at Habib University i.e. either for BS Computer Science or BS Electrical Engineering will take both the tests i.e. English Competency Test and Mathematics Competency Test

Details of the Test

1. English Competency Test

Habib University's English Competency Test is a computer-based a paper pencil test designed to assess your English reading and sentence-formation skills and your ability to express your thoughts in writing. It will be a 2-hour test. Students are tested in the following areas through the English Competency Test.

a. **Reading Comprehension**

The Reading Comprehension section will assess your ability to identify the main idea of a passage; distinguish the main idea from supporting ideas; or determine the central focus of a passage even when it is not explicitly stated. It will also assesses your ability to comprehend details and ideas that are conveyed implicitly in a passage, and to understand connections and implications.

b. **Grammar**

The questions in this section will assess your ability to recognize correct sentences in written English; avoid errors in sentence structure; and avoid errors in agreement such as lack of subject-verb agreement, incorrect verb tense, etc. They also assess your ability to use correct sentence modifiers, such as adjectives, adjective clauses, adverbs, adverb clauses etc.

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c. Essay Writing

The Essay Writing section will ask you to write a five-paragraph persuasive essay (approximately 350–500 words) on a controversial issue. You will not be allowed to use a dictionary or other outside resources, but you may use plain scratch paper to plan your essay and write your rough draft(s).

2. Mathematics Competency Test

It will be a 1.5-hour paper pencil test. It will assess your Mathematical Competence for understanding the Mathematical concepts covered in SSC and HSSC I Mathematical Syllabi. The test will also assess your ability to apply those concepts in solving a variety of mathematical problems.

Description of the test

The test is designed to gauge your understanding and ability to do mathematical analysis and manipulation. The nature of questions is multiple choice, descriptive questions and one word answers (like true/false questions). For descriptive questions you are advised to keep your answers as comprehensive as possible. The questions in the test belong to the following topics (not necessarily in the given order)

1. System of complex numbers
2. Functions and equations
3. Matrices and Determinants
4. Sequences and series
5. Permutations and combinations
6. Solving trigonometric equations
7. Graphing trigonometric functions
8. Triangle problems
9. Functions, type of functions
10. Properties of straight lines
11. Writing equation of a straight line
12. Differentiability and derivatives and its functions
13. Integration and its concepts and properties
14. Properties and equation of a circle
15. Parabola, ellipse and hyperbola
16. Vector algebra

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You are recommended to go through the prescribed text books to prepare yourself with topics you might not have covered in your school yet. These topics can generally be found in any beginning level calculus book, even those prescribed your school. In addition a large number of online resources are also available to learn these topics, one excellent resource is particular is Paul's Online Math Notes (<http://tutorial.math.lamar.edu/>).

Some recommended books are, • Calculus, Thomas, 12th edition • Calculus Early Transcendental, Stewart, 7th edition