HU TOPS Core Skills Test

HU Core Skills Test is conducted during qualifying round. It is designed to shortlist the students for HU TOPS. Students shortlisted through this test will become HU TOPS Applicants. All 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 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. <u>English Competency Test</u>

Habib University's English Competency Test is 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. Except writing section, most of the questions will be MCQs.

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.

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 blank scratch paper to plan your essay and write your rough draft(s).

2. <u>Mathematics Competency Test</u>

This is compulsory test for all those students who are applying for Electrical and Engineering or Computer Science.

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** Mathematics Syllabi. The test will also assess your ability to apply those concepts in solving a variety of mathematical problems.

90% of the test will comprise of MCQs.

Please note that all those students who are from Pre-medical ground and applying for Computer Science will also take this test. While preparing results we will take into consideration the fact that pre-medical students have not studied Mathematics in intermediate.

Description of the test

The test is designed to gauge your understanding and ability to do mathematical analysis and apply the learnt concept in a new situation. The test will focus on assessing your following abilities

1. Distinguishing between equations and expressions and the algebraic manipulations that each of them can undergo (Simplifying expressions and solving a variety of equations).
2. Converting forms (radical to exponential or index form and vice versa).
3. Rules of exponents.
4. Determining domain and range restrictions of functions.
5. Sketching graphs of functions from their equations.
6. Crafting equations from numerical data or graphs.
7. Determining intercepts of functions (finding roots using a variety of techniques).
8. Distinguishing various categories of functions; Polynomial, Exponential, Logarithmic, Trigonometric, etc. etc.
9. Working with radian and degree measures and knowing the difference.

10. A basic understanding of vector and scalar quantities.

11. Techniques of creating partial fractions.

You are recommended to go through the prescribed text books of grades X, XI and XII to prepare yourself with topics you might not have covered in your school yet. In addition a large number of online resources are also available to acquire the above mentioned competencies, one excellent resource is particular is Paul's Online Math Notes (http://tutorial.math.lamar.edu/).