

LIST OF STUDENTS WHO HAVE PASSED THE PROGRAMMING APTITUDE TEST

RANK	Name	Email	Adm. No.	Class	MARKS
1	Avii Ahuja	avii.ahuja@gmail.com	6271	9-A	365
2	Advitya mittal	advityamittal@gmail.com	5641	10-E	360
3	Ashmit Chamoli	chamoli.ashish@yahoo.com	8036	8-A	340
4	Samarth Singla	sam.singla07@gmail.com	7010	8-A	275
5	Rishabh Sharma	rishabhs1711@gmail.com	7504	8-A	260
6	Dhruv Khashu	dhruv.khashu@gmail.com	5613	10-E	250
7	Nimesh Garg	UNAVAILABLE	UNAVAILABLE	9-A	225
8	Akshat malra	malraakshat@gmail.com	8561	8-G	200
9	Ishaan Singh	ishaan1205@gmail.com	9059	10-E	190
10	Adam Sandhu	the.mad.lad.x@gmail.com	12111	8-G	190
11	Vibhak Golcha	vibhakgolchha@gmail.com	6240	9-C	150
TBA	Rishabh Jain	rishabhjnain@gmail.com	6208	10-C	TBA

- **Maximum Marks: 600**
- Students who have failed the test, will still remain a part of TECC but will have to consider some other field.
To do so kindly go back to the [REGISTRATION LINK](#) and just **EDIT YOUR RESPONSE**.
- Students shaded **GREY** have not managed to pass the test.

SOLUTIONS

We were somewhat disappointed with the results and hope everyone realises that they need to work on themselves a lot. We will be only helping you learn. Below we have written brief solutions:

Problem 1:

There are many possible simple solutions exploiting any transitive, reversible property of the first 20 integers, however another solution is to represent whether a number has been spoken or not in binary in the form of bits.

Problem 2:

This is a famous problem. You may Google search for detailed solutions.

Problem 3:

The solution is simple when you realise the conditions basically mean that you select all numbers from 1 to 50, and just add 50 to twenty five of them. It would be equivalent to the problem. This makes our answer simply $25 \times 51 + 50 \times 25$.

Problem 4:

- A. Every number is sum of previous two numbers. These are called Fibonacci series and are really interesting, you can learn more about these online.
- B. Every term is the sum of cubed value of individual digits.
- C. Simply add 3.
- D. Second term is 5 times first term minus 9. Third is 9 times second term minus 5, and so on.

Problem 5:

You can read the solution at:

<http://www.programmerinterview.com/index.php/puzzles/25-horses-3-fastest-5-races-puzzle/>

A lot of you had written the wrong solution of using 6 races by taking the top 5 from 5 groups and later racing them with each other to find top 3 from these. This, however is wrong as it is possible that the horse that ranked 2nd from some group was faster than the horse that ranked 1st from another group.

Problem 6:

Answer is 3. Simply subtract any odd prime number, which is itself decomposable into 2 primes (as conjectured by Goldbach).

