



MADRAS INSTITUTE OF TECHNOLOGY  
ANNA UNIVERSITY  
ASSOCIATION OF COMPUTER  
TECHNOLOGISTS



THINK-A-THON

RULES:

- On the answer sheet team member should stick their team QR and write their unique participant id below it.
  - Don't leave the app during the test.
  - Time limit - 45 minutes.
  - Keep your mobile in airplane mode.
  - Answer only logic for each questions
  - Each question carries 3 marks.
  - Questions marked as (\*) will be given bonus points.
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1. a) Write the logic to print all prime numbers in given range.  
b) Write the logic to print array in reverse manner
2. You are managing an online Food shopping company. You want to establish the android app for the company. List the features that can be added on the app.
3. Sketch use case diagram for Online- quiz examination.
4. List down the security features you will add for online-assessment which will be held on any browser.
5. a) Write 5 test cases for leap year program  
b) Write 5 test cases for balanced parentheses question?

Hint: The input will be parenthesis ( , ) output needs to be given parenthesis is balanced or not.

Constraints: length of input is from 0 to 1000

6. (\*)

Write the logic to print in following pattern

n=3

123

654

789

7. Write the logic to find the number of words in a given sentence.

8. (\*)

Ram wants to find a number of color pencils he wants to pick up so that he can color the given image without repeating them. Help him to solve the problem.

9. List down 5 security features that make online payment a secured one.

10. (\*)

You are an interviewer for a company. How to take the interview process. Discuss the process of interview within 10 points.