CSE200A: Competitive Programming I (Summer 2019) June 2019 Long Challenge

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1 Intoduction

Try solving at least first five problems from Division 2. Questions will be asked in end-sem exam, based on concepts used in only the first five problems. Rest of the concepts are for reading purposes.

2 Editorials (Div. 2 + Div. 1)

- Chef and Proxy (PROXYC)

- Guddu on a Date (KS2)

- Road Signs (RSIGNS)

- Chef and Ingredients (CHFING)

- Sum and GCD (SUMAGCD)

- Lent Money (LENTMO)

- Intersecting Paths (INTRPATH)

- Chef and His Dish (COOLCHEF)

- Count Arrays (COUNTIT)

- Forgotten Tree 9 (FGTREE)

3   Key Concepts Used

- Modular Exponentiation, used in RSIGNS — Link-1, Link-2, Link-3

- Prefix GCD and Suffix GCD of an array, used in SUMAGCD — Link

- Properties of XOR, used in LENTMO — Link

- Finding Lowest Common Ancestor efficiently, used in INTRPATH — Link-1, Link-2

- Square Root Decomposition, used in COOLCHEF — Link-1, Link-2

- Lagrange Interpolation, used in COUNTIT — Link-1, Link-2, Link-3

- Properties of Binary Tress, used in FGTREE — Link-1, Link-2, Link-3