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CodeChef Certified Data Structure & Algorithms Programme

Next Exam Date
MAY 2020 24
Enroll

Due to Covid-19 situation, registration has been temporarily closed

Learn Data Structures and Algorithms

This section lists out the syllabus, the learning resources and Mock Tests to help you prepare for the Certification test. The resources that we list here are references that we have collected over the internet and some of them from our own website. While we do recommend these resources based on the inputs of our user community, we do not claim that these are the most authoritative Learning Resources about any topic. Please feel free to find out what suits best to you.

We have also prepared a Mock Test for each level. A Mock Test is an open assessment contest that will help you assess yourself for the certification exam after you are ready with the topics. For each level we have different Mock Tests. These contests will run forever. We strongly recommend you to solve these problems in the same duration of time as the duration of the exam before you take the exam.

You can expect problems from the following topics to come in the exam.

Foundation

Syllabus:

The syllabus for Foundation level is mentioned below:

1. Basic Data Structures: Arrays, Strings, Stacks, Queues
2. Asymptotic analysis (Big-O notation)
3. Basic math operations (addition, subtraction, multiplication, division, exponentiation)
4. Sqrt(n) primality testing
5. Euclid's GCD Algorithm
6. Basic Recursion
7. Greedy Algorithms
8. Basic Dynamic Programming
9. Naive string searching
10. O(n logn) Sorting
11. Binary Searching

Learning Resources:

1. **Asymptotic analysis (Big-O notation)**
   a. Basic
      i. youtube.com - Time complexity of a computer program
      ii. youtube.com - Big-O notation in 5 minutes - The basics
      iii. youtube.com - Definition Of Big O Notation - Intro to Theoretical Computer Science

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vi. interactivepython.org - Particularly for Big-O notation

b. Advanced

i. rob-bell.net - A beginner's guide to Big O notation

ii. youtube.com - Big O Notation, Gayle Laakman McDowell

iii. web.mit.edu - Big O notation

iv. youtube.com - Time and space complexity analysis of recursive programs - using factorial

v. A very nice tutorial with examples

c. Practice Problems

i. Check some MCQs on space and time complexity here.

ii. You can see some problems with solutions here: Time complexity of an algorithm

2. **Arrays**

a. Resources

i. codechef.com - Data Structure Tutorial: Array

ii. cs.cmu.edu - Arrays

iii. geeksforgeeks.org - Arrays Data Structure

b. Practice Problems

i. codechef.com - LECANDY, editorial

ii. codechef.com - CNOTE, editorial ;

iii. codechef.com - SALARY, editorial

iv. codechef.com - CHN15A, editorial

v. codechef.com - RAINBOWA, editorial

vi. codechef.com - FRGTNLNG, editorial

vii. codechef.com - COPS, editorial

3. **Strings**

a. Resources

i. tutorialspoint.com - C++ strings

ii. guru99.com - Java strings

iii. docs.python.org - Python strings

iv. tutorialspoint.com - Python strings

v. geeksforgeeks.org - Many string questions

b. Practice Problems

i. codechef.com - CSUB, editorial

ii. codechef.com - LAPIN, editorial

4. **Stack and Queue**

a. Resources

i. geeksforgeeks.org - Stack Data Structure

ii. geeksforgeeks.org - Introduction and Array Implementation

iii. tutorialspoint.com - Data Structures Algorithms

iv. cs.cmu.edu - Stacks

v. cs.cmu.edu - Stacks and Queues

vi. cs.cmu.edu - Stacks and Queues

b. Practice Problems

i. spoj.com - JNEXT

ii. spoj.com - STPAR

iii. spoj.com - ONP

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vi. spoj.com - HISTOGRA
vii. codeforces.com - D. Maximum Xor Secondary
viii. spoj.com - ANARC09A
ix. codeforces.com - C. Minimal string
x. codeforces.com - B. Alternating Current
xi. codeforces.com - C. Longest Regular Bracket Sequence

5. **Basic math operations (addition, subtraction, multiplication, division, exponentiation)**
   a. codechef.com - A tutorial on Fast Modulo Multiplication
6. **Euclid's GCD Algorithm**
   a. Resources
      i. youtube.com - Mycodeschool video
      ii. khanacademy.org - The Euclidean Algorithm
      iii. geeksforgeeks.org - Example program to find gcd in c++:
7. **Prime Numbers, divisibility of numbers**
   a. Resources:
      i. Only O(sqrt(n)) algorithm for finding whether a number is a prime, factorization of a number.
      ii. Finding prime factors by taking the square root
   b. Practice Problems:
      i. community.topcoder.com - DivisorInc
      ii. community.topcoder.com - Prime Polynom
      iii. community.topcoder.com - Prime Anagrams
      iv. community.topcoder.com - Refactoring
8. **Basic Recursion**
   a. Resources
      i. topcoder.com - An Introduction to Recursion, Part 1
      ii. topcoder.com - An Introduction to Recursion: Part 2
      iii. geeksforgeeks.org - Recursion ;(along with questions)
      iv. web.mit.edu - Recursion
      v. csee.umbc.edu - Recursion ;(Examples with exercises)
      vi. loveforprogramming.quora.com - Backtracking, Memoization & Dynamic Programming
      vii. byte-by-byte - Recursion for Coding Interviews
   b. Practice Problems
      i. codechef.com - NOKIA, editorial
      ii. codechef.com - TRISQ, editorial
      iii. codechef.com - LFSTACK, editorial
      iv. codechef.com - FICE, editorial
9. **Greedy Algorithms**
   a. Resources
      i. iarcs.org.in - Greedy Algorithms
      ii. iarcs.org.in - Greedy Algorithms
      iii. topcoder.com - Greedy Algorithms
      iv. Greedy Algorithms
   b. Practice Problems
      i. codechef.com - TACHSTCK, editorial
      ii. codechef.com - CIELRCPT, editorial

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v. codechef.com - CAKEDOOM, editorial
vi. codechef.com - CLETAB, editorial
vii. codechef.com - TADELIVE, editorial
viii. codechef.com - MANYCHEF, editorial
ix. codechef.com - MMPROD, editorial
x. codechef.com - CHEFTMA, editorial
xi. codechef.com - STICKS, editorial
xii. spoj.com - BAISED
xiii. spoj.com - BALIFE
xiv. spoj.com - GCJ101BB
xv. codechef.com - FGFS
xvi. codechef.com - KNPSK
xvii. codechef.com - LEMUSIC
xviii. spoj.com - ARRANGE
xix. spoj.com - FASHION

10. **Dynamic programming (Basic DP)**
    a. Resources
        i. medium.freecodecamp.org - Demystifying Dynamic Programming
        ii. iarcs.org.in - Dynamic Programming - Tiling
        iii. topcoder.com - Dynamic Programming – From Novice to Advanced
        iv. illinois.edu - Dynamic Programming ;(Exercises are recommended)
        v. codechef.com - Dynamic Programming
        vi. geeksforgeeks.org - Dynamic Programming ;(Contains a lot of practice sessions)
        vii. MIT OCW (Contains some Advanced topics as well)
            i. Dynamic Programming I
            ii. Dynamic Programming II
            iii. Dynamic Programming III
            iv. Dynamic Programming IV
    b. Practice Problems
        i. codechef.com - ALTARAY, editorial
        ii. codechef.com - DELISH, editorial
        iii. codechef.com - DBOY, editorial
        iv. codechef.com - XORSUB, editorial
        v. codechef.com - GRID, editorial
        vi. codechef.com - TADELIVE, editorial
        vii. codechef.com - FROGV, editorial
        viii. codechef.com - MATRIX2, editorial
        ix. codechef.com - AMSGAME2, editorial
        x. spoj.com - MDOLLS
        xi. spoj.com - MSTICK
        xii. spoj.com - MCARDS
        xiii. spoj.com - MIXTURES
        xiv. spoj.com - SAMER08D
        xv. spoj.com - AIBOHP

11. **Naive string searching**
    a. Resources
        i. geeksforgeeks.org - Naive Pattern Searching

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a. khanacademy.org
b. visualgo.net
c. iarcs.org.in
d. Merge sort
   i. youtube.com - Merge sort algorithm
   ii. Practice Problems
   codechef.com -MRGSRT
e. Quick sort
   i. youtube.com - Quicksort algorithm
   ii. Practice Problems
   codechef.com -TSORT
f. Counting sort
   i. geeksforgeeks.org - Counting Sort
   ii. Practice Problems
      i. codechef.com - TACHSTCK, editorial
      ii. codechef.com - STICKS, editorial

13. **Binary Search**
   a. Resources
      i. topcoder.com (Try solving problems of Simple and Moderate level as mentioned in the end of the link)
      ii. codechef.com
      iii. usfca.edu
      iv. khanacademy.org
   b. Detailed Theoretical analysis
      i. cmu.edu (A theoretical analysis)
   c. Problems
      i. geeksforgeeks.org - Binary Search (Contains some solved problems)
      ii. codechef.com - STRSUB, editorial
      iii. codechef.com - ASHIGIFT, editorial
      iv. codechef.com - STACKS, editorial
      v. codechef.com - DIVSET, editorial
      vi. codechef.com - LOWSUM, editorial
      vii. codechef.com - SNTEMPLE, editorial
      viii. codechef.com - SNAKEEAT, editorial
      ix. codechef.com - SCHEDULE, editorial
      x. codechef.com - RIGHTTRI, editorial
      xi. codechef.com - FORESTGA, editorial
      xii. codechef.com - CHEFHCK2,editorial
      xiii. spoj.com - ABCDEF
      xiv. spoj.com - NOTATRI
      xv. spoj.com - SCALE
      xvi. spoj.com - SUMFOUR
      xvii. spoj.com - SUBSUMS
      xviii. spoj.com - ANARC05B
      xix. spoj.com - RENT
      xx. spoj.com - PIE
      xxi. spoj.com - MKUHAR
      xxii. spoj.com - SVADA

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Past Test:

Practice on the exact problems which had appeared in a past Foundation level exam:

1. Test 1 - https://www.codechef.com/FLPAST01

Mock Test:

1. Test 1 - codechef.com/FLMOCK01
2. Test 2 - codechef.com/FLMOCK02
3. Test 3 - codechef.com/FLMOCK03
4. Test 4 - codechef.com/FLMOCK04

Advanced

This level is intended to test that the one has a very good grasp of algorithms and data structures, and can solve most problems that arise in practice. You can expect problems from the following topics to come in the exam.

Syllabus:

Everything in the Foundation Level, along with:

1. Heaps (priority queue)
2. Disjoint Set Union
3. Segment Trees
4. Binary Index Tree (Fenwick tree)
5. Trees (traversals, tree dynamic programming)
6. Finding Lowest Common Ancestors (O(log N) solution where N is number of nodes).
7. Graph Algorithms:
   a. Finding connected components and transitive closures.
   b. Shortest-path algorithms (Dijkstra, Bellman-Ford, Floyd-Warshall)
   c. Minimum spanning tree (Prim and Kruskal algorithms)
   d. Biconnectivity in undirected graphs (bridges, articulation points)
   e. Strongly connected components in directed graphs
   f. Topological Sorting
   g. Euler path, tour/cycle.
8. Modular arithmetic including division, inverse
9. Amortized Analysis
10. Divide and Conquer
11. Advanced Dynamic Programming problems (excluding the dp optimizations which are added in expert level)
12. Sieve of Eratosthenes

Learning Resources:

1. **Heaps (priority queue)**
   a. Resources
      i. cs.cmu.edu
      ii. eecs.wsu.edu
      iii. geeksforgeeks.org
      iv. visualgo.net
      v. iarcs.org.in
   b. Practice Problems

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iii. codechef.com - KSUBSUM, editorial
iv. codechef.com - RRATING, editorial
v. codechef.com - TSECJ05, editorial
vi. spoj.com - WEIRDFN
vii. codechef.com - CAPIMOVE, editorial
viii. spoj.com - RMID2
ix. spoj.com - LAZYPROG
x. spoj.com - EXPEDI
xi. acm.timus.ru
xii. baylor.edu - Maze Checking and Visualization
xiii. codechef.com - MOSTDIST, editorial

2. **Disjoint Set Union**
   a. Resources
      i. topcoder.com
      ii. harvard.edu
      iii. ucdavis.edu
      iv. visualgo.net
   b. Practice Problems
      i. codechef.com - GALACTIK, editorial
      ii. codechef.com - DISHOWN, editorial
      iii. codechef.com - JABO, editorial
      iv. codechef.com - PARITREE, editorial
      v. codechef.com - FILLMTR, editorial
      vi. B. Mike and Feet
      vii. D. Quantity of Strings
      viii. codechef.com - SETELE, editorial
      ix. codechef.com - MAZE, editorial
      x. codechef.com - MAGICSTR, editorial
      xi. codechef.com - MTRWY, editorial
      xii. codechef.com - BIGOF01, editorial
      xiii. codechef.com - FIRESC, editorial

3. **Segment Trees**
   a. Resources
      i. wcipeg.com
      ii. topcoder.com
      iii. kartikkukreja.wordpress.com
      iv. visualgo.net
      v. iarcs.org.in
   b. Practice Problems
      i. spoj.com - GSS1
      ii. spoj.com - GSS2
      iii. codeforces.com - Classic Segment Tree (Expert Level)
      iv. spoj.com - IOPC1207
      v. spoj.com - ORDERSET
      vi. spoj.com - HELPR2D2
      vii. spoj.com - ANDROUND
      viii. spoj.com - HEAPULM

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xi. spoj.com - DQUERY
xii. spoj.com - KQUERY
xiii. spoj.com - FREQUENT
xiv. spoj.com - GSS3
xv. spoj.com - GSS4
xvi. spoj.com - GSS5
xvii. spoj.com - KGSS
xviii. spoj.com - HELPR2D2
xix. spoj.com - BRCKTS
xx. spoj.com - CTRICK
xxi. spoj.com - MATSUM
xxii. spoj.com - RATING
xxiii. spoj.com - RRSCHED
xxiv. spoj.com - SUPPER
xxv. spoj.com - ORDERS
xxvi. codechef.com - LEBOBBLE
xxvii. codechef.com - QUERY
xxviii. spoj.com - TEMPLEQ
xxix. spoj.com - DISUBSTR
xxx. spoj.com - QTREE
xxxi. spoj.com - QTREE2
xxxii. spoj.com - QTREE3
xxxiii. spoj.com - QTREE4
xxxiv. spoj.com - QTREE5

c. Problems on segment tree with lazy propagation
   i. spoj.com - HORRIBLE (must do basic lazy propagation problem)
   ii. spoj.com - LITE (a nice lazy propagation problem)
   iii. spoj.com - MULTQ3 (another nice lazy propagation problem)
   iv. codechef.com - CHEFD
   v. codechef.com - FUNAGP (a difficult lazy propagation problem.)
   vi. RPAR (a difficult and nice lazy propagation)
   vii. codechef.com - ADDMUL
   viii. spoj.com - SEGSQRSS (a difficult lazy propagation problem)
   ix. spoj.com - KGSS
   x. codeforces.com - C. Circular RMQ
   xi. codeforces.com - E. Lucky Queries (must do hard problem on lazy propagation)
   xii. codeforces.com - E. A Simple Task
   xiii. codeforces.com - C. DZY Loves Fibonacci Numbers (important problem to do, introduces some nice properties over lazy propagation)
   xiv. codeforces.com - D. The Child and Sequence
   xv. codeforces.com - E. Lucky Array

4. **Binary Index Tree (Fenwick tree)**
   a. Resources
      i. topcoder.com
      ii. iarcs.org.in
      iii. visualgo.net
   b. Practice Problems:
      Please solve the problems mentioned in the above segment tree practice problems section. Note that usually, it's difficult to do range updates in binary indexed trees. Mostly

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binary indexed tree (http://petr-mitrichev.blogspot.in/2013/05/fenwick-tree-range-updates.html). Note that range updates on BIT is not a part of the syllabus.

i. spoj.com - INVCNT
ii. spoj.com - TRIPINV

5. **Trees (traversals)**
   a. Resources
      i. slideshare.net
      ii. iarcs.org.in
      iii. berkeley.edu
   b. Practice Problems
      i. spoj.com - TREEORD
6. **Finding Lowest Common Ancestors (O(log N) solution where N is number of nodes)**
   a. Resources
      i. topcoder.com
7. **Depth First Search, Breadth First Search (Finding connected components and transitive closures)**
   a. Resources
      i. geeksforgeeks.org - Connected Components in an undirected graph
      ii. geeksforgeeks.org - Transitive closure of a graph
      iii. geeksforgeeks.org - Depth First Traversal or DFS for a Graph
      iv. iarcs.org.in - Basic Graph Algorithms
      v. visualgo.net - Graph Traversal
      vi. harvard.edu - Breadth-First Search
   b. Practice Problems
      i. codechef.com - FIRESC, editorial
      ii. spoj.com - BUGLIFE
      iii. spoj.com - CAM5
      iv. spoj.com - GCPC11J
      v. spoj.com - KFSTB
      vi. spoj.com - PT07Y
      vii. spoj.com - PT07Z
      viii. spoj.com - LABYR1
      ix. spoj.com - PARADOX
      x. spoj.com - PPATH ;(must do bfs problem)
      xi. spoj.com - ELEVTRBL (bfs)
      xii. spoj.com - QUEEN (bfs)
      xiii. spoj.com - SSORT ;(cycles in a graph)
      xiv. spoj.com - ROBOTGRI ;(bfs)
8. **Shortest-path algorithms (Dijkstra, Bellman-Ford, Floyd-Warshall)**
   a. Resources
      i. geeksforgeeks.org - Dijkstra's shortest path algorithm
      ii. Iarcs.org.in - Shortest paths
      iii. Visualgo.net - Single-Source Shortest Paths (SSSP)
   b. Practice Problems
      i. codechef.com - DIGJUMP, editorial
      ii. codechef.com - AMR14B, editorial
      iii. codechef.com - INSQ15_F, editorial

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v. codechef.com - RIVPILE, editorial

vi. spoj.com - SHPATH

vii. spoj.com - TRAFFICN

viii. spoj.com - SAMER08A

ix. spoj.com - MICEMAZE

x. spoj.com - TRVCOST

xi. codechef.com - PAIRCLST, editorial

9. **Bellman Ford Algorithm**
   a. Resources
      i. geeksforgeeks.org - Dynamic Programming - Bellman–Ford Algorithm
      ii. compprog.wordpress.com - ;One Source Shortest Path - Bellman-Ford Algorithm
   b. Practice Problem
      i. community.topcoder.com - PeopleYouMayKnow
      ii. codeforces.com - D. Robot Control
      iii. spoj.com - ARBITRAG - Arbitrage ;(Floyd Warshall)
      iv. community.topcoder.com - NetworkSecurity ;(Floyd Warshall)

10. **Minimum spanning tree (Prim and Kruskal algorithms)**
    a. Resources
       i. algs4.cs.princeton.edu - Minimum Spanning Trees
       ii. iarcs.org.in - Spanning trees
       iii. visualgo.net - Spanning Tree
    b. Practice Problem
       i. spoj.com - MST
       ii. spoj.com - NITTROAD
       iii. spoj.com - BLINNET
       iv. spoj.com - CSTREET
       v. spoj.com - HIGHWAYS
       vi. spoj.com - IITWPC4I
       vii. codechef.com - MSTQS, editorial
       viii. codechef.com - CHEFGAME, editorial
       ix. codechef.com - GALACTIK, editorial
       x. codechef.com - GOOGOL03, editorial
       xi. spoj.com - KOICOST

11. **Biconnectivity in undirected graphs (bridges, articulation points)**
    a. Resources
       i. e-maxx-eng.appspot.com - Finding Bridges in a Graph
       ii. iarcs.org.in - Articulation Points
       iii. pisces.ck.tp.edu.tw - Articulation Points
    b. Practice Problem
       i. uva.onlinejudge.org - Network
       ii. icpcarchive.ecs.baylor.edu - Building Bridges
       iii. uva.onlinejudge.org - Tourist Guide
       iv. acm.tju.edu.cn - Network
       v. spoj.com - EC_P - Critical Edges
       vi. spoj.com - SUBMERGE - Submerging Islands
       vii. spoj.com - POLQUERY - Police Query
       viii. codeforces.com - A. Cutting Figure

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a. Resources
   i. iarcs.org.in - Strongly connected components
   ii. theory.stanford.edu - Strongly Connected Components

b. Practice Problem
   i. spoj.com - ANTTT
   ii. spoj.com - CAPCITY
   iii. spoj.com - SUBMERGE
   iv. codechef.com - MCO16405, editorial
   v. spoj.com - BOTTOM
   vi. spoj.com - BREAK
   vii. community.topcoder.com - Marble Collection Game

13. **Topological Sorting**
   a. Resources
      i. geeksforgeeks.org - Topological Sorting
   b. Practice Problem
      i. spoj.com - TOPOSORT ;
      ii. codeforces.com - C. Fox And Names ;
      iii. codechef.com - RRDAG, editorial
      iv. spoj.com - RPLA
      v. codechef.com - CL16BF (topological sort with dp), editorial
      vi. spoj.com - MAKETREE

14. **Euler path, tour/cycle.**
   a. Resources
      i. math.ku.edu - Euler Paths and Euler Circuits
   b. Practice Problem
      i. spoj.com - WORDS1
      ii. codechef.com - CHEFPASS, editorial
      iii. codechef.com - TOURISTS, editorial
      iv. codeforces.com - D. New Year Santa Network
      v. B. Strongly Connected City
      vi. codechef.com - PEOPLOVE
      vii. codeforces.com - D. Tanya and Password
      viii. codeforces.com - E. One-Way Reform
      ix. spoj.com - GCPC11C
      x. spoj.com - MAKETREE

15. **Modular arithmetic including division, inverse**
   a. Resources
      i. codechef.com - Fast Modulo Multiplication (Exponential Squaring)
      ii. codechef.com - Best known algos for calculating nCr % M ;(only for expert level)

16. **Amortized Analysis**
   a. Resources
      i. ocw.mit.edu - Amortized Analysis
      ii. wikipedia.org - Amortized Analysis
      iii. iiitdm.ac.in - Amortized Analysis

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ii. geeksforgeeks.org - Divide-and-Conquer

b. Practice Problem

i. codechef.com - MRGSRT, editorial
ii. spoj.com - HISTOGRA
iii. codechef.com - TASTYD, editorial
iv. codechef.com - RESTPERM, editorial
v. codechef.com - ACM14KP1, editorial

18. **Advanced Dynamic Programming** problems (excluding the dp optimizations which are added in expert level, Please go through the basic DP resources and problems mentioned in foundation level resource.)

a. Resources

i. apps.topcoder.com - Commonly used DP state domains
ii. apps.topcoder.com - Introducing Dynamic Programming
iii. apps.topcoder.com - Optimizing DP solution
iv. codeforces.com - DP over Subsets and Paths

b. Problems for Advanced DP

i. spoj.com - HIST2 ;(dp bitmask)
ii. spoj.com - LAZYCOWS ;(dp bitmask)
iii. spoj.com - TRSTAGE ;(dp bitmask)
iv. spoj.com - MARTIAN
v. spoj.com - SQRBR
vi. spoj.com - ACMAKER
vii. spoj.com - AEROLITE
viii. spoj.com - BACKPACK
ix. spoj.com - COURIER
x. spoj.com - DP
xi. spoj.com - EDIST
xii. spoj.com - KRECT
xiii. spoj.com - GNY07H
xiv. spoj.com - LISA
xv. spoj.com - MINUS
xvi. spoj.com - NAJKRACI
xvii. spoj.com - PHIDIAS
xviii. spoj.com - PIGBANK
xix. spoj.com - PT07X
xx. spoj.com - VOCV
xxi. spoj.com - TOURIST
xxii. spoj.com - MKBUDGET
xxiii. spoj.com - MMAXPER
xxiv. spoj.com - ANARC07G
xxv. spoj.com - MENU
xxvi. spoj.com - RENT ;(dp with segment tree/BIT)
xxvii. spoj.com - INCSEQ ;(dp with segment tree/BIT)
xxviii. spoj.com - INCDSEQ ;(dp with segment tree/BIT)
xxix. You can solve some advanced problems from
xxx. codeforces.com - Dynamic Programming Type

19. **Sieve of Eratosthenes**

a. Resources:

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i. spoj.com - TDKPRIME
ii. spoj.com - TDPRIMES
iii. spoj.com - ODDDIV ;(sieve + binary search)
iv. spoj.com - NDIVPHI ;O(N) prime testing algorithm)
v. spoj.com - DIV ;(divisor sieve)
vi. codechef.com - LEVY, editorial
vii. codechef.com - PRETNUM, editorial
viii. codechef.com - KPRIME, editorial
ix. codechef.com - DIVMAC, editorial (segment tree with sieve)
x. codechef.com - PPERM, editorial ;(a bit advanced sieve application)

20. **General**
    a. Stanford Algoriths 1
    b. Stanford Algoriths 2

Past Test:

Practice on the exact problems which had appeared in a past Advanced level exam:

1. Test 1 - https://www.codechef.com/ALPAST01

Mock Test:

1. Test 1 - https://www.codechef.com/ADMOCK01
2. Test 2 - https://www.codechef.com/ADMOCK02

Note: These links have been curated to help in preparation for the exams, and also to help the community in general. But if you own some of the material linked to, and you wouldn't like them to be here, please contact us, and we will remove it.

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