# **Advanced Programming Lab - 2**

Question Number	Roll No
1,17,16	66,83,A0,B8
2,16,12	67,84,A1,B9
3,15,17	68,85,A2,C0
4,14,13	69,86,A3,C1
5,13,14	70,87,A4,C2
6,12,15	71,88,A5,C3
7,11,10	72,89,A6,C4
8,10,11	73,90,A8,C5
9,8,1	74,91,A9,C6
10,9,2	75,92,B0,C7
11,7,3	76,93,B1,C8
12,6,4	77,94,B2,LE 07
13,5,6	78,95,B3,LE 08
14,4,5	79,96,B4,LE 09
15,3,7	80,97,B5,LE 10
16,2,8	81,98,B6,LE 11
17,1,9	82,99,B7,LE 12

Week-1 Batch 1: 20 Aug 2022 | Batch 2: 22 Aug 2022

S.no	Торіс	Question name	Links
1	Sorting	Uncle Johny	https://www.codechef.com/submit/JOHNY
2	Basic Maths	Lucky Four	https://www.codechef.com/submit/LUCKYFR
3	Basic Maths	WGHTS	https://www.codechef.com/submit/WGHTS
4	Data Structures	Practice makes us perfect	https://www.codechef.com/submit/PRACTICEPERF
5	Arrays	Problems in your to-do list	https://www.codechef.com/submit/TODOLIST
6	Data Structures	Recent contest problems	https://www.codechef.com/submit/RECENTCONT
7	Data Structures	Make all equal using Pairs	https://www.codechef.com/submit/PAIREQ
8	Conditional Statements	The Lead Game	https://www.codechef.com/submit/TLG
9	Priority Queue	Turbo Sort	https://www.codechef.com/submit/TSORT
10	Data Structures	Small factorials	https://www.codechef.com/submit/FCTRL2
11	String	Compress the Video	https://www.codechef.com/submit/COMPRESSVD
12	String	Rearranging digits to get a multiple of 5	https://www.codechef.com/submit/DIGARR
13	Data Structures	Red Light, Green Light	https://www.codechef.com/submit/DOLL
14	Stacks	Transform the Expression	https://www.codechef.com/submit/ONP
15	Conditional Statements	Chef and Cook-Off	https://www.codechef.com/submit/CCOOK
16	Loops	Kitchen Timetable	https://www.codechef.com/submit/KTTABLE
17	Conditional Statements	Game between friends	https://www.codechef.com/submit/FRGAME

Week -2 Batch 1: 27 Aug 2022 | Batch 2: 3 Sept 2022

S.no	Торіс	Question name	Links
1	Arrays	The Lead Game	https://www.codechef.com/submit/TLG
2	String	The Block Game	https://www.codechef.com/submit/PALL01
3	Data Structures	Compress the Video	https://www.codechef.com/submit/COMPRESSV D
4	Loops	Wordle	https://www.codechef.com/submit/WORDLE
5	String	Rearranging digits to get a multiple of 5	https://www.codechef.com/submit/DIGARR
6	Algorithms	Counting Pretty Numbers	https://www.codechef.com/submit/NUM239
7	Arrays	Red Light, Green Light	https://www.codechef.com/submit/DOLL
8	Loops	Kitchen Timetable	https://www.codechef.com/submit/KTTABLE
9	Conditional Statements	Game between friends	https://www.codechef.com/submit/FRGAME
10	Data Types	Naive Chef	https://www.codechef.com/submit/NAICHEF
11	Conditional Statements	Can_Reach	https://www.codechef.com/submit/CAN_REACH
12	Loops	WA Test Cases	https://www.codechef.com/submit/WATESTCAS ES
13	Conditional Statements	Cricket Ranking	https://www.codechef.com/submit/CRICRANK
14	Conditional Statements	Chef and Spells	https://www.codechef.com/submit/CHFSPL
15	Basic Maths	Puppy and Sum	https://www.codechef.com/submit/PPSUM
16	Conditional Statements	Marathon	https://www.codechef.com/submit/MARARUN
17	Conditional Statements	Two Rooks	https://www.codechef.com/submit/TWOROOKS

Week -3 Batch 1: 10 Sept 2022 | Batch 2: 5 Sept 2022

S.no	Topic	Question name	Links
1	Data Structures	Devu and friendship testing	https://www.codechef.com/submit/CFRTEST
2	Data Structure	Binary String Cost	https://www.codechef.com/submit/BSCOST
3	Frequency Arrays	Chef and Dolls	https://www.codechef.com/submit/MISSP
4	Conditional Statements	Can You Eat It	https://www.codechef.com/submit/COMPCAND
5	Algorithms	The Old Saint And Three Questions	https://www.codechef.com/submit/THREEQ
6	Conditional Statements	Vaccine Dates	https://www.codechef.com/submit/VDATES
7	Basic Programming Concepts	Penalty Shots	https://www.codechef.com/submit/PENALTY
8	Algorithms	Shoe Fit	https://www.codechef.com/submit/SHOEFIT
9	Conditional Statements	A - Save Water Save Life	https://www.codechef.com/submit/SAVWATER
10	Loops	Count the Holidays	https://www.codechef.com/submit/SUNDAY
11	Conditional Statements	Chef and SnackDown	https://www.codechef.com/submit/SNCKYEAR
12	Algorithms	Olympics Ranking	https://www.codechef.com/submit/OLYRANK
13	Basic Maths	Chef on Vacation	https://www.codechef.com/submit/CHEFVACATI ON
14	Conditional Statements	Utkarsh and Placement tests	https://www.codechef.com/submit/UTKPLC
15	Conditional Statements	Gold Mining	https://www.codechef.com/submit/CARRYGOLD
16	Algorithms	Find the Direction	https://www.codechef.com/submit/FACEDIR
17	Conditional Statements	Chef On Island	https://www.codechef.com/submit/CCISLAND

# Week -4 Batch 1: | Batch 2:

S.no	Торіс	Question name	Links
1	Conditional		https://www.codechef.com/submit/MATCHES
	Statements	MATCHES	
2	Loops	EZSPEAK	https://www.codechef.com/submit/EZSPEAK
3	Data Structures	zooz	https://www.codechef.com/submit/ZOOZ
4	Data Structures	Easy Pronunciation	https://www.codechef.com/submit/EZSPEAK
5	Basic Programming Concepts	Programming Languages	https://www.codechef.com/submit/PROGLANG
6	Data Structures	Devu and friendship testing	https://www.codechef.com/submit/CFRTEST
7	Arrays	That Is My Score!	https://www.codechef.com/submit/WATSCORE
8	Algorithms	Chef and String	https://www.codechef.com/submit/XYSTR
9	Algorithms	Chef and Work	https://www.codechef.com/submit/CHEFNWRK
10	Algorithms	Hungry Chef	https://www.codechef.com/submit/BURGERS2
11	Number System	Split N	https://www.codechef.com/submit/SPLITN
12	Implementation	Ada and crayons	https://www.codechef.com/submit/ADACRA
13	Sorting	Chef and Employment Test	https://www.codechef.com/submit/CK87MEDI
14	Data Structures	Balanced Reversals	https://www.codechef.com/submit/BALREV
15	Algorithms	A - Books	https://www.codechef.com/submit/BIT2A
16	String	Chef and Table Tennis	https://www.codechef.com/submit/TTENIS
17	Algorithms	Xor Palindrome	https://www.codechef.com/submit/XOR_PAL

## Week -5

S.no	Торіс	Question name	Links
1	Arrays	A Problem on Sticks	https://www.codechef.com/submit/TREE2
2	String	Chef and Feedback	https://www.codechef.com/submit/ERROR
3	sorting	Ups and Downs	https://www.codechef.com/submit/ANUUND
4	Brute Force	Trace of Matrix	https://www.codechef.com/submit/TRACE
5	Greedy	Split N	https://www.codechef.com/submit/SPLITN
6	Algorithms	Retrieve the Array	https://www.codechef.com/submit/ARRAYRET
7	Algorithms	Buy1-Get1	https://www.codechef.com/submit/BUY1GET1
8	Algorithms	Chef and Number Game	https://www.codechef.com/submit/CHNUM
9	Greedy	Hungry Chef	https://www.codechef.com/submit/BURGERS2
10	Algorithms	Train Partner	https://www.codechef.com/submit/ANKTRAIN
11	Greedy	Chef and Work	https://www.codechef.com/submit/CHEFNWRK
12	Conditional Statements	Chef and Cook-Off Contests	https://www.codechef.com/submit/C00K0FF
13	Algorithms	Divisible by i	https://www.codechef.com/submit/DIVBYI
14	Algorithms	A Balanced Contest	https://www.codechef.com/submit/PERFCONT
15	String	Pawri Meme	https://www.codechef.com/submit/PAWRI
16	Rabin Karp Algorithm	Little Elephant and Strings	https://www.codechef.com/submit/LUCKYSTR
17	String	Balanced Reversals	https://www.codechef.com/submit/BALREV

## Week -6

S.no	Торіс	Question name	Links
1	Bit Manipulation	Xor Palindrome	https://www.codechef.com/submit/XOR_PAL
2	String	Non Adjacent Flips	https://www.codechef.com/submit/NONADJFLIP
3	String	Processing a string	https://www.codechef.com/submit/KOL15A
4	Data Structures	Studying Alphabet	https://www.codechef.com/submit/ALPHABET
5	String	Alternating String	https://www.codechef.com/submit/ALTSTR
6	String	Sort the String	https://www.codechef.com/submit/SRTARR
7	String	Chef and Table Tennis	https://www.codechef.com/submit/TTENIS
8	String	Binary String Cost	https://www.codechef.com/submit/BSCOST
9	String	Snake Procession	https://www.codechef.com/submit/SNAKPROC
10	String	Zero Ones Equal One Zeros	https://www.codechef.com/submit/ZOOZ
11	Sorting	Chef and Eid	https://www.codechef.com/submit/EID
12	Sorting	Chef and Employment Test	https://www.codechef.com/submit/CK87MEDI
13	Sorting	Lazy Salesman	https://www.codechef.com/submit/HOLIDAYS
14	Sorting	A - Books	https://www.codechef.com/submit/BIT2A
15	Basic Maths	Airline Restrictions	https://www.codechef.com/submit/AIRLINE
16	Basic Maths	Odd Pairs	https://www.codechef.com/submit/ODDPAIRS
17	Basic Maths	Cutting Recipes	https://www.codechef.com/submit/RECIPE

#### Week -7

S.no	Торіс	Question name	Links
1	String	Chef and String	https://www.codechef.com/submit/RECNDSTR
2	String	Daily Train	https://www.codechef.com/submit/DAILY
3	String	Cool Name	https://www.codechef.com/submit/CALPOWER
4	String	Distinct Codes	https://www.codechef.com/submit/DISTCODE
5	String	Swapping Chefs Way	https://www.codechef.com/submit/SWAPCW
6	String	Palindromic substrings	https://www.codechef.com/submit/STRPALIN
7	Sorting	Simple Statistics	https://www.codechef.com/submit/SIMPSTAT
8	Sorting	Racing Horses	https://www.codechef.com/submit/HORSES
9	Sorting	Pushpa	https://www.codechef.com/submit/PUSH7PA
10	Sorting	Magic Pairs	https://www.codechef.com/submit/ALEXNUMB
11	Data Structures	Good Pairs	https://www.codechef.com/submit/EQPAIR
12	Merge Sort	Little Elephant and Permutations	https://www.codechef.com/submit/LEPERMUT
13	Frequency Arrays	Broken Telephone	https://www.codechef.com/submit/BROKPHON
14	Arrays	ICPC Balloons	https://www.codechef.com/submit/BALLOON
15	Frequency Arrays	Chef and digits of a number	https://www.codechef.com/submit/LONGSEQ
16	Frequency Arrays	Making a Meal	https://www.codechef.com/submit/CFMM
17	Arrays	A Subtask Problem	https://www.codechef.com/submit/SUBTASK

#### Week 8

S.no	Topic	Question name	Links
1	Strings	Defanging an IP Address	https://leetcode.com/problems/defanging-an-ip-ad dress/
2	Strings	Final Value of Variable after Performing Operations	https://leetcode.com/problems/final-value-of-variab le-after-performing-operations/
3	Strings	Goal Parser Interpretation	https://leetcode.com/problems/goal-parser-interpre tation/
4	Strings	Maximum Number of Words Found in Sentences	https://leetcode.com/problems/maximum-number- of-words-found-in-sentences/
5	Strings	Jewels and Stones	https://leetcode.com/problems/jewels-and-stones/
6	Strings	Shuffle String	https://leetcode.com/problems/shuffle-string/
7	Arrays	Running Sum of 1d Array	https://leetcode.com/problems/running-sum-of-1d-array/
8	Arrays	Concatenation of Array	https://leetcode.com/problems/concatenation-of-ar ray/
9	Arrays	Build Array from Permutation	https://leetcode.com/problems/build-array-from-permutation/
10	Arrays	Shuffle String	https://leetcode.com/problems/shuffle-string/
11	Arrays	Richest Customer Wealth	https://leetcode.com/problems/richest-customer-wealth/
12	Arrays	Number of Good Pairs	https://leetcode.com/problems/number-of-good-pairs/
13	Strings	Cells in a Range on an Excel Sheet	https://leetcode.com/problems/cells-in-a-range-on- an-excel-sheet/
14	Strings	Split a String in Balanced Strings	https://leetcode.com/problems/split-a-string-in-bala nced-strings/
15	Strings	Decode the Message	https://leetcode.com/problems/decode-the-message/
16	Strings	Sorting the Sentence	https://leetcode.com/problems/sorting-the-sentence/

17	Strings	Count Items	https://leetcode.com/problems/count-items-matchi	
		Matching a Rule	ng-a-rule/	

# Week 9

S.no	Topic	Question name	Links
1	Recursion	Palindrome Linked List	https://leetcode.com/problems/palindrome-linked-list/
2	Recursion	Merge Two Sorted Lists	https://leetcode.com/problems/merge-two-sorted-lists/
3	Recursion	Fibonacci Number	https://leetcode.com/problems/fibonacci-number/
4	Recursion	Reverse Linked List	https://leetcode.com/problems/reverse-linked-list/
5	Recursion	Power of Two	https://leetcode.com/problems/power-of-two/
6	Recursion	Power of Four	https://leetcode.com/problems/power-of-four/
7	Recursion	Power of Three	https://leetcode.com/problems/power-of-three/
8	Recursion	Remove Linked List Elements	https://leetcode.com/problems/remove-linked-list-e lements/
9	Matrix	Richest Customer Wealth	https://leetcode.com/problems/richest-customer-wealth/
10	Matrix	Largest Local Values in a Matrix	https://leetcode.com/problems/largest-local-values-in-a-matrix/
11	Matrix	Flipping an Image	https://leetcode.com/problems/flipping-an-image/
12	Matrix	Matrix Diagonal Sum	https://leetcode.com/problems/matrix-diagonal-sum/
13	Matrix	Count Negative Numbers in a Sorted Matrix	https://leetcode.com/problems/count-negative-numbers-in-a-sorted-matrix/
14	Sorting	Sorting the Sentence	https://leetcode.com/problems/minimum-number- of-moves-to-seat-everyone/
15	Sorting	How Many Numbers	https://leetcode.com/problems/how-many-numbers

		Are Smaller Than the Current Number	-are-smaller-than-the-current-number/
16	Sorting	Minimum Sum of Four Digit Number After Splitting Digits	https://leetcode.com/problems/minimum-sum-of-fo ur-digit-number-after-splitting-digits/
17	Sorting	Minimum Number of Moves to Seat Everyone	https://leetcode.com/problems/minimum-number- of-moves-to-seat-everyone/

#### Week 10

S.no	Topic	Question name	Links
1	Bit Manipulation	Count the Number of Consistent Strings	https://leetcode.com/problems/count-the-number- of-consistent-strings/
2	Bit Manipulation	Minimum Bit Flips to Convert Number	https://leetcode.com/problems/minimum-bit-flips-t o-convert-number/
3	Bit Manipulation	XOR Operation in an Array	https://leetcode.com/problems/xor-operation-in-an -array/
4	Bit Manipulation	Number of Steps to Reduce a Number to Zero	https://leetcode.com/problems/number-of-steps-to-reduce-a-number-to-zero/
5	Bit Manipulation	Decode XORed Array	https://leetcode.com/problems/decode-xored-array
6	Bit Manipulation	Sum of All Subset XOR Totals	https://leetcode.com/problems/sum-of-all-subset-x or-totals/
7	Dynamic Programming	Divisor Game	https://leetcode.com/problems/divisor-game/
8	Dynamic Programming	N-th Tribonacci Number	https://leetcode.com/problems/n-th-tribonacci-number/
9	Dynamic Programming	Min Cost Climbing Stairs	https://leetcode.com/problems/min-cost-climbing-s tairs/
10	Dynamic Programming	Pascal's Triangle	https://leetcode.com/problems/pascals-triangle/
11	Dynamic Programming	Counting Bits	https://leetcode.com/problems/counting-bits/

12	Math	Minimum Sum of Four Digit Number After Splitting Digits	https://leetcode.com/problems/minimum-sum-of-fo ur-digit-number-after-splitting-digits/
13	Math	Number of Good Pairs	https://leetcode.com/problems/number-of-good-pairs/
14	Math	Add Two Integers	https://leetcode.com/problems/add-two-integers/
15	Math	Convert the Temperature	https://leetcode.com/problems/convert-the-temper ature/
16	Math	Smallest Even Multiple	https://leetcode.com/problems/smallest-even-multiple/
17	Math	Number of Steps to Reduce a Number to Zero	https://leetcode.com/problems/number-of-steps-to-reduce-a-number-to-zero/