IISc Banglore MTech CSA Coursework

Date 18 April 2022 9:00 – 12:00 slot

Duration 90 min (anytime between 9 to 12)

4 programming questions each 100 marks on hacker earth platform

Que 1)

https://www.geeksforgeeks.org/minimum-number-deletions-make-string-palindrome/

Que 2)

A collection of integers is taken as input (say vector<int> collection) and the first element integer is N.

You must find if all the factors of N are present in collection.

Output three integers result x y with one space in them.

1) If all factors of N present, then result=1 and x=0 and y=0.

2) if all factors not present result=0 and x is the smallest factor does not present in collection and y is the largest factor does not present in the collection. Note that x and y can be same.

Que 3)

Given an array of intervals where intervals[i] = [starti, endi], all overlapping intervals require one camera only. Return minimum no of cameras required.

Refer this similar question https://leetcode.com/problems/merge-intervals/

Que 4)

Dynamic Programming: Rod cutting variation

Given array of n elements where arr[i] is profit you get after making pieces of mysore-pak for length of I. Find maximum Profit for n pieces.

Example

input 1) n=4 {1,5,7,8}

output 2) max=10 (5+5) two pieces of size=2;