

# CSE 204

## DATA STRUCTURE AND ALGORITHMS – I

### Offline 2

### Problem 2

Distinct subsets of a given set

Submitted By

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## MACHINE CONFIGURATION:

1. **Processor:** Intel(R) Core(TM) i7-8550U CPU @ 1.80GHz, 2GHz
2. **Installed RAM:** 8.00 GB
3. **OS:** Windows 10 Home Single Language
4. **System Type:** x64-based PC

## Data Set

N	Time (Nanoseconds)
5	3848
6	6948
7	14588
8	26071
9	50508
10	99643
11	196167
12	398828
13	829905
14	1834790
15	4200980
16	8146040
17	17297300
18	30748907
19	60934000
20	112131000
21	135568000
22	333990000
23	346641000
24	1456390000
25	4916350000
25	15169800000
27	32570000000
28	69139800000

# Time Complexity

$$O(2^n)$$

## Graph

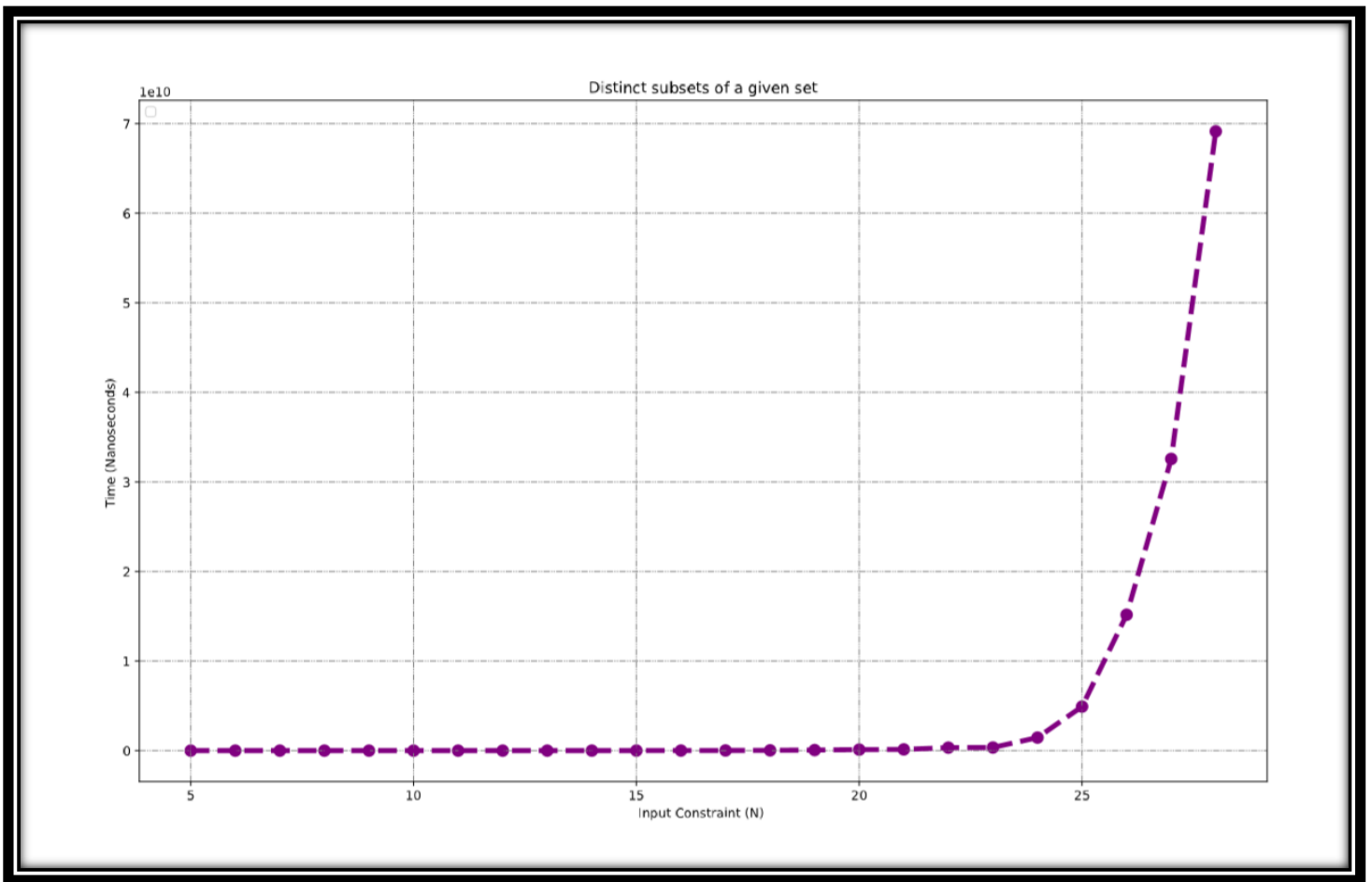


Fig : Distinct Power Set Generation Running Time