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Batch :- A1
Tutorial :- 06
Subject :- Data structures.

Q Show how merge sort works for the following array of integers.

1) Arr [] = {38, 27, 43, 3, 9, 82, 10}

⇒

Split into 2

{38, 27, 43, 3} + {9, 82, 10}

split left part — split right part

{38, 27} + {43, 3} — {9} {82, 10}

split again — | — | — split again

{38} {27} {43} {3} — {9} {82} {10}

Sort — sort — | — sort

{27, 38} — {3, 43} — {9} — {10, 82}

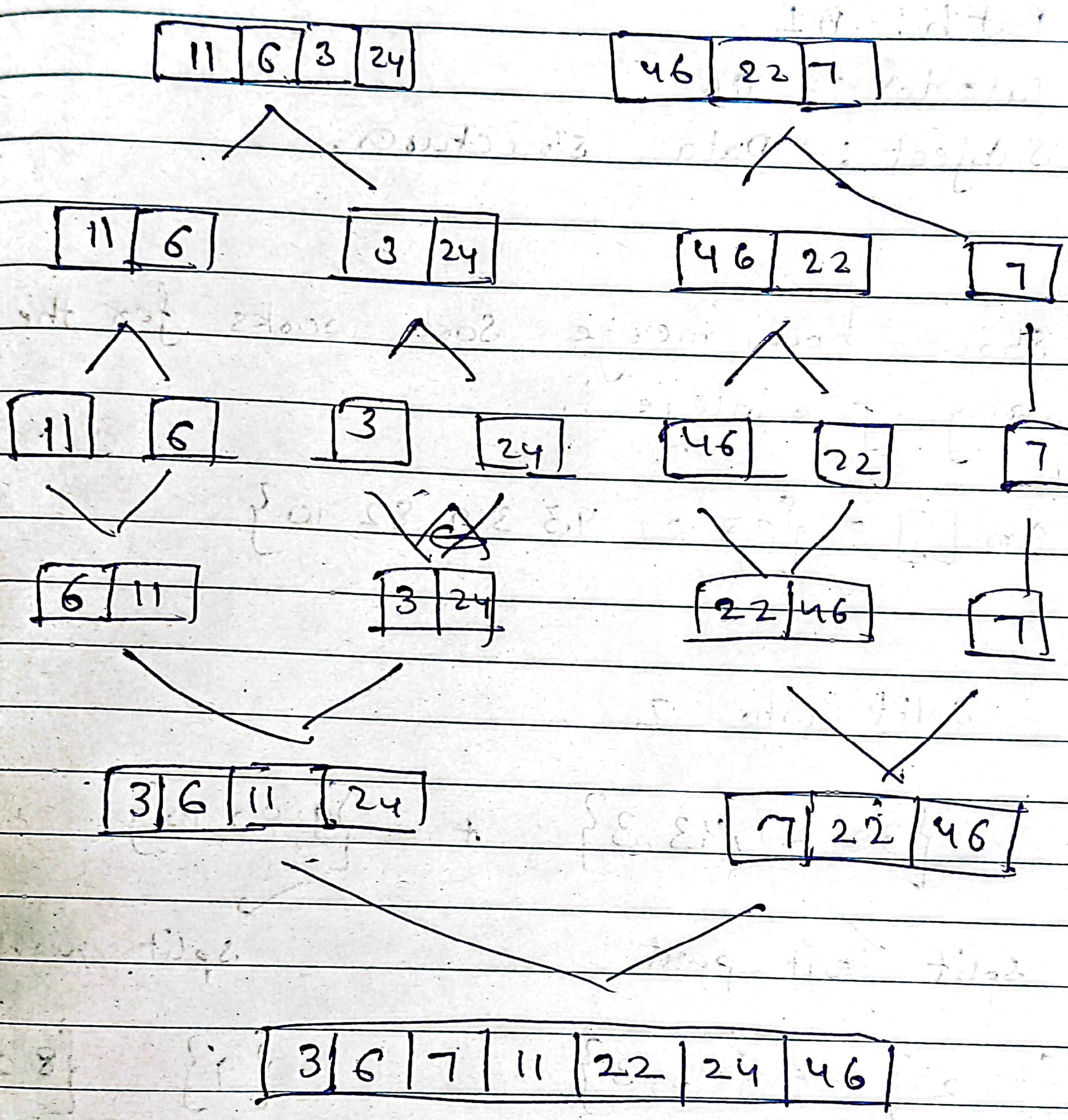
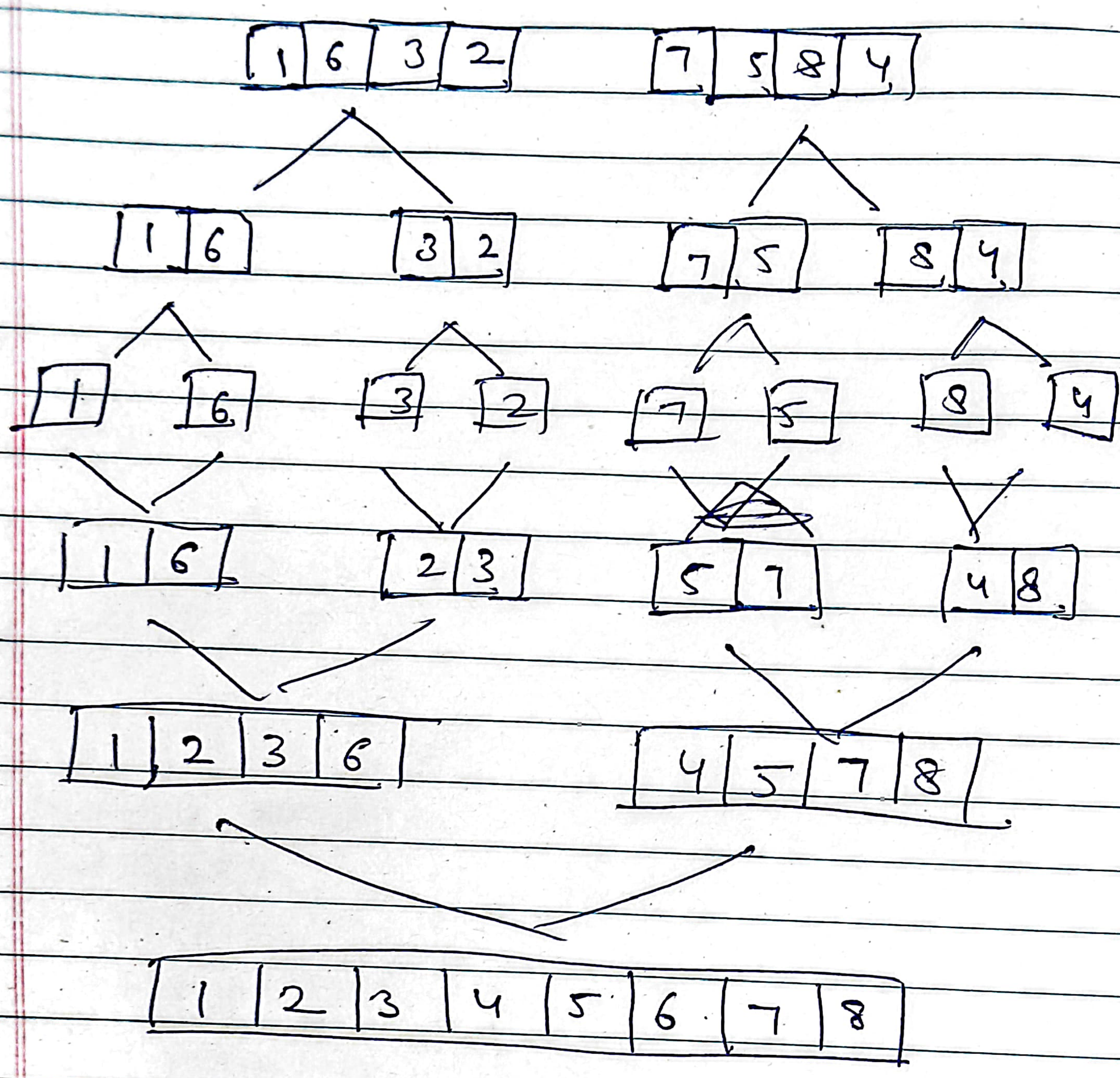
sort & merge — sort & merge

{3, 27, 38, 43} — {9, 10, 82}

sort & merge

{3, 9, 10, 27, 38, 43, 82}

(b) A[] = {11, 6, 3, 24, 46, 22, 7}



(c) Array = [1, 6, 3, 2, 7, 5, 8, 4]