**MODULE 9 - ACTIVITY 2**

**QUESTION :**

Give traces by showing how the keys E A S Y Q U E S T I O N are sorted with top-down mergesort.

**SOLUTION:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E | A | S | Y | Q | U | E | S | T | I | O | N |
| E | A | S | Y | Q | U |  |  |  |  |  |  |
| E | A | S |  |  |  |  |  |  |  |  |  |
| E |  |  |  |  |  |  |  |  |  |  |  |
|  | A | S |  |  |  |  |  |  |  |  |  |
| **A** | **E** | **S** |  |  |  |  |  |  |  |  |  |
|  |  |  | Y |  |  |  |  |  |  |  |  |
|  |  |  |  | Q | U |  |  |  |  |  |  |
|  |  |  | **Q** | **U** | **Y** |  |  |  |  |  |  |
| **A** | **E** | **Q** | **S** | **U** | **Y** | E | S | T | I | O | N |
|  |  |  |  |  |  | E | S | T |  |  |  |
|  |  |  |  |  |  | E |  |  |  |  |  |
|  |  |  |  |  |  |  | S | T |  |  |  |
|  |  |  |  |  |  | **E** | **S** | **T** |  |  |  |
|  |  |  |  |  |  |  |  |  | I |  |  |
|  |  |  |  |  |  |  |  |  |  | N | O |
|  |  |  |  |  |  |  |  |  | **I** | **N** | **O** |
|  |  |  |  |  |  | **E** | **I** | **N** | **O** | **S** | **T** |
| **A** | **E** | **E** | **I** | **N** | **O** | **Q** | **S** | **S** | **T** | **U** | **Y** |