**2) Write the algorithm/function for Ternary Search.**

*/\* int ar[] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 }, r = length of array(10), l = index, key = Element to search(5) . \*/*

static int **ternarySearch**(int l, int r, int key, int ar[])

{

if (r >= l) {

int mid1 = l + (r - l) / 3, mid2 = r - (r - l) / 3;

if (ar[mid1] == key)

{

return mid1;

}

if (ar[mid2] == key)

{

return mid2;

}

if (key < ar[mid1])

{

return ternarySearch(l, mid1 - 1, key, ar);

}

else if (key > ar[mid2])

{

return ternarySearch(mid2 + 1, r, key, ar);

}

else

{

return ternarySearch(mid1 + 1, mid2 - 1, key, ar);

}

}

return -1;

}