20. Sort the array so that whenever nums[i] is odd, i is odd, and whenever nums[i] is even, i is even. Return any answer array that satisfies this condition.

Code:

```
def sort_array_by_parity(nums):
    even, odd = 0, 1
    n = len(nums)

    while even < n and odd < n:
        while even < n and nums[even] % 2 == 0:
            even += 2
        while odd < n and nums[odd] % 2 != 0:
            odd += 2
        if even < n and odd < n:
            nums[even], nums[odd] = nums[odd], nums[even]

    return nums

# Example usage:
nums = [4, 2, 5, 7]
sorted_nums = sort_array_by_parity(nums)
print("Sorted array:", sorted_nums)
```

Output:

```
Sorted array: [4, 5, 2, 7]
```

Time Complexity:

- T(n)= O(n)