Question 1:

Text

Description automatically generatedAs algorithm is in place, doesn’t need any extra space and time complexity is O(n)

B>

For this we can apply quick sort algorithm by taking red = 1, green =2, blue = 3.

Time complexity for the quick sort is O (n log k) and we can do quick sort as in-place.

K the different colors

c>

Here we can use quicksort algorithm as well, same as B, just we must use yellow = 4 as well and time and space complexity will be same as b.

Question 2

a>

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b>

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c>

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d>

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Question 3

a>

Text

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b>

Calendar

Description automatically generatedc>

d>

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Question 4

Text

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