

Question3)

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main.c
1 #include<stdio.h>
2 # define size1 3
3 # define size2 6
4 # define size3 9
5 void merge(char q1[],char q2[])
6 {
7     int rear1=0,rear2=0,rear3=0,front3=0;
8     char q3[size3];
9     if(rear3==size3-1)
10     {
11         printf("QUEUE FULL \n");
12         return;
13     }
14     for(int i=0;i<size3;i++)
15     {
16
17         if(rear3%2==0)
18         {
19             if(i>=5){
20                 q3[rear3]=q2[rear2];
21                 rear3++;
22                 rear2++;
23             }
24             q3[rear3]=q1[rear1];
25             rear3++;
26             rear1++;
27         }
28         else
29         {
30             if(i>=5){
```

```
30             if(i>=5){
31                 q3[rear3]=q2[rear2];
32                 rear3++;
33                 rear2++;
34             }
35             q3[rear3]=q2[rear2];
36             rear3++;
37             rear2++;
38         }
39     }
40     printf("contents of the queue after merging \n");
41     for(int i=front3;i<=size3;i++)
42         printf("%c \n",q3[i]);
43 }
44 int main()
45 {
46     char q1[]={'3','6','8'};
47     char q2[]={'b','y','u','t','r','o'};
48     merge(q1,q2);
49     return 0;
50 }
```