

5)  $M=3, N=2$

$a, c, b \mid c, f, e \mid a, c, b \mid e, d, a \mid e, c, b \mid a, g, \dots$   
 $g, a, f \mid f, c, b \mid g, b$

A) Runs

$R_1 = \{a, b, c\}$   $R_2 = \{c, e, f\}$   $R_3 = \{a, b, c\}$   
 $R_4 = \{a, d, e\}$   $R_5 = \{b, c, e\}$   $R_6 = \{a, c, g\}$   
 $R_7 = \{a, f, g\}$   $R_8 = \{b, c, f\}$   $R_9 = \{b, g\}$

B) Merge Pass 1:

Disk 1 :  $a, b, c \mid a, b, c \mid b, c, e \mid a, f, g \mid b, g$

Disk 2 :  $c, e, f \mid a, d, e \mid a, c, g \mid b, c, f$

merge Pass 2

Disk 1 :  $a, b, c, c, e, f \mid a, b, c, c, e, g \mid b, g$

Disk 2 :  $a, a, b, c, d, e \mid a, b, c, f, f, g \mid$

merge Pass 3

Disk 1 :  $a, a, a, b, b, c, c, c, d, e, e, f \mid b, g$

Disk 2 :  $a, a, b, b, c, c, c, e, f, f, g$

merge Pass 4:

Disk 1 : a, a, a, a, a, b, b, b, b, c, c, ~~c~~, e, c, c, d, e, ~~e~~, f, f, f, <sup>g</sup>

Disk 2 : b, g

merge Pass 5:

Disk 1 = a, a, a, a, a, b, b, b, b, b, c, c, c, c, c, c, d,  
e, e, e, f, f, f, g, g