Sequential counting procedure for 1(a):

1.Select 3 people from the group expcet the bride and the groom.
($C(8,3)$ choices)
2.Select 1 people in the first position of the row.
(5 choices)
3.Select 1 people in the second position of the row.
(4 choices)
4.Select 1 people in the third position of the row.
(3 choices)
5.Select 1 people in the fourth position of the row.
(2 choices)
6.Select 1 people in the fifth position of the row.
(1 choices)
The total number of sequences in 1(a) is $C(8,3)$*5*4*3*2*1=6720.

Sequential counting procedure for 1(b):

1.Select 3 people from the group expcet the bride and the groom.
($C(8,3)$ choices)
2.Select 1 position for bride and groom in the row.
(4 choices)
3.Select 1 people in the first position of the row (except bride and groom).
(3 choices)
4.Select 1 people in the second position of the row (except bride and groom).
(2 choices)
5.Select 1 people in the third position of the row (except bride and groom).
(1 choices)
6.The position of the bride and the groom.
(2 choices)
The total number of sequences in 1(b) is $C(8,3)$*4*3*2*2*1=2688.

Sequential counting procedure for 2:

1.Set 1 people as the starting point.
(1 choices)
2.Select 1 people for the second position.
(9 choices)
3.Select 1 people for the third position.
(8 choices)
4.Select 1 people for the fourth position.
(7 choices)
5.Select 1 people for the fifth position.
(6 choices)
6.Select 1 people for the sixth position.
(5 choices)
7.Select 1 people for the seventh position.

(4 choices)

8.Select 1 people for the eighth position.

(3 choices)

9.Select 1 people for the ninth position.

(2 choices)

10.Select 1 people for the tenth position.

(1 choices)

By the Multiplication Principle, the total number of sequences in 2 is 9*8*7*6*5*4*3*2*1=362880.

Sequential counting procedure for 3:

Ⅰ:

1.Number of all poker hands from the standard deck.

($C(52,5)$ choices)

The total number of poker hands is $C(52,5)$=2598960.

Ⅱ:

1.Select king for poker hands that have only 1 king.

(4 choices)

2.Select 4 cards for poker hands that have only 1 king.

($C(48,4)$ choices)

The number of poker hands that have only 1 king is $C(48,4)$*4=778320.

Ⅲ:

1.Select kings for poker hands that have 2 kings.

($C(4,2)$ choices)

2.Select 3 cards for poker hands that have 2 kings.

($C(48,3)$ choices)

The number of poker hands that have 2 kings is $C(4,2)$*$C(48,3)$ =103776.

Ⅳ:

1.Select kings for poker hands that have 3 kings.

($C(4,3)$ choices)

2.Select 2 cards for poker hands that have 3 kings.

($C(48,2)$ choices)

The number of poker hands that have 3 kings is $C(4,3)$*$C(48,2)$=4512.

Ⅴ:

1.Select kings for poker hands that have 4 kings.

(1 choices)

2.Select 1 card for poker hands that have 4 kings.

($C(48,1)$ choices)

The number of poker hands that have 4 kings is 1*$C(48,1)$=48.

The number of poker hands that do not contain a King is 2598960-778320-103776-4512-48=1712304.

Ⅵ:

1.Number of suits.

(4 choices)

2.Select 5 cards from one suit.

($C(13, 5)$ choices)

The number of poker hands that contain exactly one suit is 4*$C(13, 5)$=5148.

The number of poker hands do not contain a King or contain exactly one suit is 1717452.