**CPT\_S 580 HW1**

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**1.**

**Search space #1**

Initial State: None (k empty slot for each m)

Successor State Function: All valid combination of clusters differs by 1 bit

Terminal State Function: correct combination of clusters

**Search space #2**

Initial State: None (k empty slot for each m)

Successor State Function: All valid combination of clusters differs by 1 bit on single slot

Terminal State Function: correct combination of clusters