

**NPTEL**

**NPTEL ONLINE CERTIFICATION COURSE**

**Discrete Mathematics  
Graph Theory - 1**

**Coloring the India Map**

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Let us consider the map of India,  
(Refer Slide Time: 00:07)



there are several states in India, and what one is supposed to do is to fill in different colors and different states,  
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in fact we can fill in a color per state, but then what I require is the following, fill in colors in such a way that no two adjacent states have the same color, and minimize the number of colors, (Refer Slide Time: 00:39)



by that I mean use as less colors as possible and ensure that you end up coloring all the states such that no two states have the same color.

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