## Joint Group Meeting Problems Mar 29, 2012

## **Sushital Jana**

1. Propose a mechanism for the following transformation and find out the products for each step.

Ts  
N R  

$$(pCF_3Ph)_3PAuNTf_2 (2mol\%)$$
  
 $CH_2Cl_2, rt, 15 min$   
 $93\%$   
Ph

$$R = I$$

Ph

2. Propose a suitable mechanism for the formation of two different products under two different conditions.