

## CHAPTER V

### CONCLUSIONS

From the results and discussions shown in Chapter IV, some conclusions can be drawn as follows.

1. The transformations among cellulose polymorphs (I, II, and III) by caustic soda mercerization or by liquid ammonia treatment do not cause damages on cellulosic fabrics, instead treated fabrics are stronger, more flexible, and absorb more dyes than the untreated fabrics (native cellulose).

2. To obtain a completion of cellulose polymorph transformation, cellulose must pass several transformations by the uses of caustic soda mercerization altering with the liquid ammonia treatment.

3. Samples of cellulose II or samples that have passed the transformation to cellulose II obtain the same dyeability but they are capable of absorbing more dyes than other samples in this work.

4. For application and economical reasons, the process of transformation of cellulose I to cellulose II, are the most appropriate process to improve dyeability and strength of cotton fabrics.