## DEPARTMENT OF CIVIL ENGINEERING: IIT DELHI

## CEL 766: Systems Design and Value Analysis

2006-2007 MAJOR TEST Time: 90 Minutes

- 1. (a) What is cost modeling? How it can be used in Value Engg.?
  - (b) Using the numerical evaluation technique identify the basic function of 'roofing'.
  - (c) Draw the 'FAST' diagram for any one of the following:
    - (i) Postal Service
    - (ii) Material Procurement
- 2. Write short notes on the following:
  - (i) Systems problem and its characteristics
  - (ii) Steps involved in systems design
  - (iii) Improvement of traditional building procedure through Systems Design approach.
- 3. (a) What is work sampling? What are its advantages?
  - (b) What are basic principles of methods design?
  - (c) Explain the basic steps involved in the 'Work Design' approach.