Code No: C7504

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I Semester Examinations, March/April 2011
STATE AND PARAMETER ESTIMATION THEROY
(CONTROL SYSTEMS)

Time: 3hours   Max. Marks: 60

Answer any five questions
All questions carry equal marks
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1. a. Explain the maximum likely hood method with a suitable example.
    b. Explain mean square error with equations.   [12]

2. Discuss about absolute value cost function.   [12]

3. Explain linear minimum variance method with an example.   [12]

4. Write short notes on :
    a. Non Linear estimators
    b. Un biased estimators   [6+6]

5. Explain the sensitivity and error analysis by using the state estimation problem
    $Z = h\theta+n$.   [12]

6. Discuss about discrete time Kalman filter with an example.   [12]

7. Explain in detail about fixed log smoothing process.   [12]

8. Discuss the process of sequential estimation with at least one example. [12]

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