

Code No: C7504

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech I Semester Examinations, March/April 2011

STATE AND PARAMETER ESTIMATION THEORY

(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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