04 November 14

Engineering Mathematics Mid-term Exam

1. Find the solution of the initial-value problem, , and state whether it is unique or not. (20%)
2. Reduce the given system to the Echelon form. (20%)

Solve the given coupled differential equations (Think as an eigenvalue problem). (30%)

1. A body of mass, *m*, is dropped from rest, at time *t=0*, with its displacement *x(t)* measured down from the point of release, the equation of motion is , where *g* is the acceleration of gravity and *t* is the time (Free-fall problem). (30%)

