**INTRODUCTION TO ROBOTICS – ASSIGNMENT 2 b**

**To be submitted through Moodle by 10th April 2020**

1. **Sketch graphs of position, velocity, and acceleration for a two segment continuous acceleration spline. Sketch them for a joint for which q0 =5 deg., qv =15 deg., q g=-10 deg. And each segment lasts 2 secs.**
2. **Calculate  for a two-segment linear spline with parabolic blends. For this joint q1 =5 deg., q2 =15 deg., q 3=-40 deg. Assume td12= td23=2 secs, default acceleration at blends = 60 degrees/sec2. Sketch plots of position, velocity and acceleration of q.**
3. **A single link robot with a rotary joint is motionless at q= -5 deg. It is desired to move the joint in a smooth manner to q=80 degrees in 4 secs. and stop smoothly. Compute the corresponding parameters of a linear trajectory with parabolic blends. Plot the position, velocity, and acceleration of the joint as a function of time.**