**Istanbul Technical University 12.11.2018**

**Faculty of Aeronautics and Astronautics**

**12449 DNK201E Dynamics**

**Quiz – 2**



**Problem:** Determine the speed *v* required of an earth satellite at point *A* for

1. a circular orbit,
2. an elliptical orbit of eccentricity e=0.1,
3. an elliptical orbit of eccentricity e=0.9, and
4. a parabolic orbit.

In cases (b), (c), and (d), *A* is the orbit perigee. Repeat the calculations for position of point *A* at 0.15*R* above earth’s surface.

**Solution:**