1. Determine the maximum value of the function $F(x, y, z) = ax + by + cz$ and constraint is defined as $x^2 + y^2 + z^2 = 6$. Also determine the value of x, y, z.   [20]

   Where, a = Your ID mod 3 + 2

   b = Your ID mod 5 + 3

   c = Your ID mod 7 + 4.