V CONCLUSION

After observed the results by the experimental method, it can be drawn some conclusions from the research of Experimental Study of The Nose Landing Gear Stiffness and Mass Variation on The Acceleration Response Amplitude as follows :

1. Spring with stiffness of 29N/mm has a deflection of 2.7mm due to an 8kg mass, while the deflections of spring with stiffness of 215N/mm in additional of mass respectively is 0.39mm, 0.44mm, 0.49mm, 0.54mm.
2. Spring with stiffness of 215N/mm have a bigger maximum acceleration than spring with stiffness of 29N/mm, where the percentage of difference in amplitude acceleration is 43.6%. The addition of mass increases the maximum acceleration up to 43.53% with a ratio of each increase in mass is 1 : 1.2 : 1.3 : 1.4. The changes in stiffness and mass affect the damping ratio where spring with stiffness of 29N/mm have a bigger damping ratio then stiffness of 215N/mm (0.228>0.154) and for the additional mass the damping ratio respectively is 0.154, 0.149, 0.134, 0.124. The landing gear system can be said as underdamped case because all of the damping ratio is smaller than one $(\xi < 1)$ also natural frequency of the landing gear system with mass addition respectively is 143.458rad/s, 132.472rad/s, 129.245rad/s, 123.962 rad/s, while the stiffness variation is 92.983rad/s.