

國立臺南大學105學年度 **機電系統工程研究所碩士班** 招生考試 工程數學 試題卷

1. Try to solve the differential equation as;



Subject to the condition of y(0)=0, where n is a constant. (15%)

2. Consider the quadratic form as



We would like to write above as, try to find the matrix *A* while. (15%)

3. Consider thesystem



try to find the general solution of *x*1(*t*) and *x*2(*t*) (20%)

4. To find the general solution. (25%)

5. To find the general solution (25%)