# CHAPTER 4

## CONCLUSIONS

The types of solutions of (3.1) such as the weak solutions and the strong solutions depending on the condition of $f(t)$, and $n$.

(1) If $f(t)$ is locally integrable, then we obtain only solution in the strong form.

(2) If $f(t)$ is of the form

$$\sum_{r=0}^{m} a_r \delta^{(r)}$$

that is the singular distribution, then we obtain both weak solutions and strong solutions dependigng on the relationship between $m$ and $n$.