SEMESTER :
SUBJECT NAME : OPERATION RESEARCH
SUBJECT CODE : 3151910
FACULTY NAME: Assist. Prof. Kedar H Badheka

## ASSIGNMENT: 4

## UNIT : 2 Exercise and case problems on Dual and Primal LP Problems

1. Find the dual of the following LPP.

Maximize $Z=4 x_{1}+5 \mathrm{x}_{2}+12 \mathrm{x}_{3}$
Subjected to $2 \mathrm{x}_{1}+\mathrm{x}_{2}+3 \mathrm{x}_{3} \leq 4$

$$
3 x_{1}-2 x_{2}+x_{3}=3 \text { and } x_{1}, x_{2}, x_{3} \geq 0
$$

2. Find the dual of the following LPP.

Maximize $Z=-x_{1}+2 x_{2}$
Subjected to $-\mathrm{x}_{1}+3 \mathrm{x}_{2} \leq 10$

$$
\mathrm{x}_{1}+\mathrm{x}_{2} \leq 6 \text { and } \mathrm{x}_{1}, \mathrm{x}_{2}, \geq 0
$$



