

**DEPARTMENT**: MECHANICAL

SEMESTER : 7

SUBJECT NAME: OPERATION RESEARCH

**SUBJECT CODE: 2171901** 

**FACULTY NAME: Assist. Prof. Kedar H Badheka** 

## **ASSIGNMENT: 2**

## **UNIT: 2 Exercise on Graphical solution of linear programing problems**

1. Use graphical method to solve the following LPP.

Maximize  $Z=17 X_1 + 15 X_2$ 

Subject to:  $15X_1 + 25X_2 \le 375$ 

 $24X_1 + 11X_2 \le 265$ 

All  $X_1, X_2 \ge 0$ 

2. Use Graphical Method to Solve the Following LPP.

 $Maximize W = 2y_1 + y_2$ 

Subjected to  $y_1 + 2y_2 \le 10$ 

 $y_1 + y_2 \le 6$ 

 $y_1 - y_2 \le 2$ 

 $y_1 - 2y_2 \le 1$  and  $y_1, y_2 \ge 0$ 

