**Notaions:**

İ notaions of weeks

J notaions of priece per unit

**Parameters:**

Minorder=min order qty

Minshipment=min shipment qty

Maxinventor=max number of weeks that inventory can be held at supplier

Price(j)= price per unit

Demand(i)= demand of i. week

Minrequi(i)= Minimum inventory requirement of i. week

**Decision Variables:**

x(i): Order amount of i.week

y(j,i): if 1, I. week material was sent with j. price, 0 otherwise

Instock(i)= Inventory at warehouse end of week of i. week

Shipmentware(i)= Shipment amount from supplier to warehouse of i. week

Z(i)= if Shipment amount from supplier to warehouser i.week z[i] is 1 ,other 0

Z min = price(j) +

X(i)+Instock(i-1)+ ≥demand(i)

X(i)+Instock(i-1)+ -demand(i)= Instock(i)+

X(i)≤20\*y(1,I)+ 30\*y(2,I) +300\*y(3,I)

Instock(i)+ ≥ Minrequi(i)

Xi)≥Minorder

≤z(i)\*Bigm

≥z(i)\* Minshipment