**4.3 Effect on Fiber Losses, α=0.35 dB/KM**

**L=10 KM**

****

**4.3.1: Input graph**

****

**Figure 4.3.2: Output graph**

**L= 20KM**

****

**Figure: 4.3.3: Input graph**

****

**Figure: 4.3.4: Output graph**

**L= 30KM**

****

**Figure 4.3.5: Input graph**

****

**Figure 4.3.6: Output graph**

**4.4 Effect on nonlinearity (SPM) L=10KM**

****

**Figure 4.4.1: Graph of fundamental of soliton**



**Figure 4.4.2: Effect of nonlinearity of soliton**

**L= 20KM**

****

**Figure 4.4.3: Input graph of fundamental of soliton**

****

**Figure 4.4.4: Effect of nonlinearity of soliton**

**L=30 KM**

****

**Figure 4.4.5: Input graph of fundamental of soliton**

****

**Figure 4.4.6: Effect of nonlinearity of soliton**

**4.5 Effect of Group Velocity Dispersion (GVD) L=10KM**

****

**Figure 4.5.1: input graph**

****

**Figure 4.5.2: Output graph**

**L=20KM**

****

**Figure 4.5.3: Input graph**

****

**Figure 4.5.4: Output graph**

**L=30KM**

****

**Figure 4.5.5: Input graph**

****

**Figure 4.5.6: Output graph**