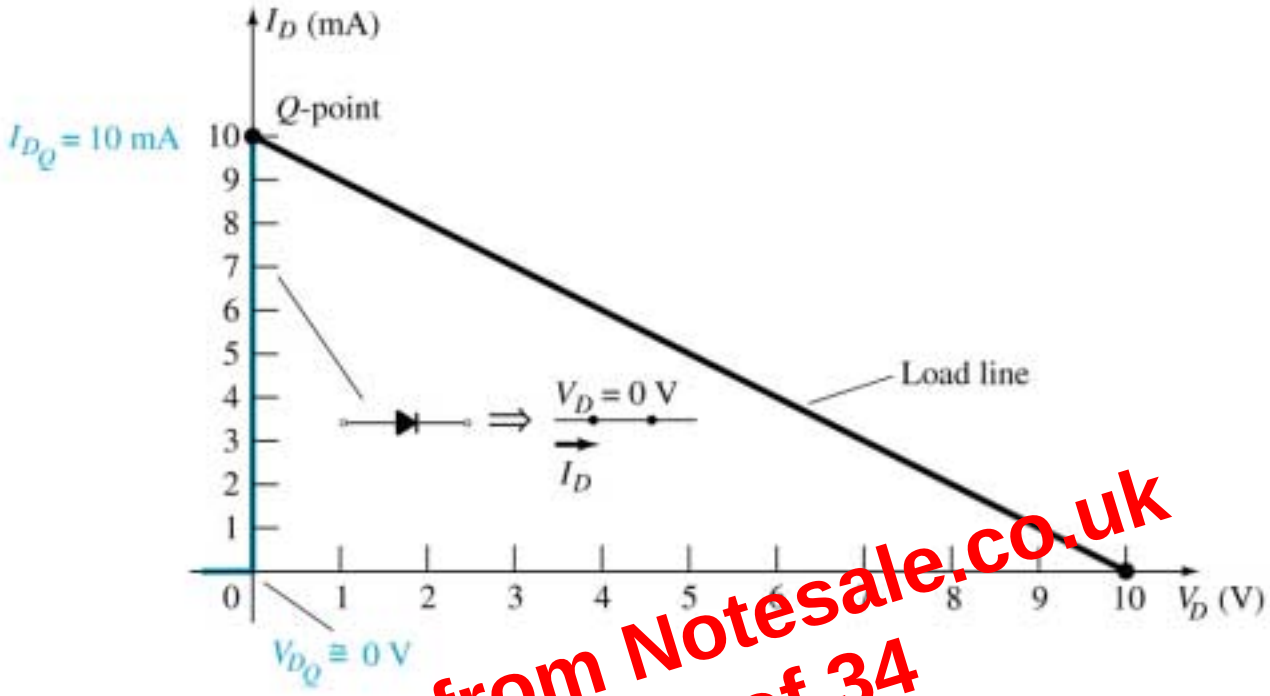
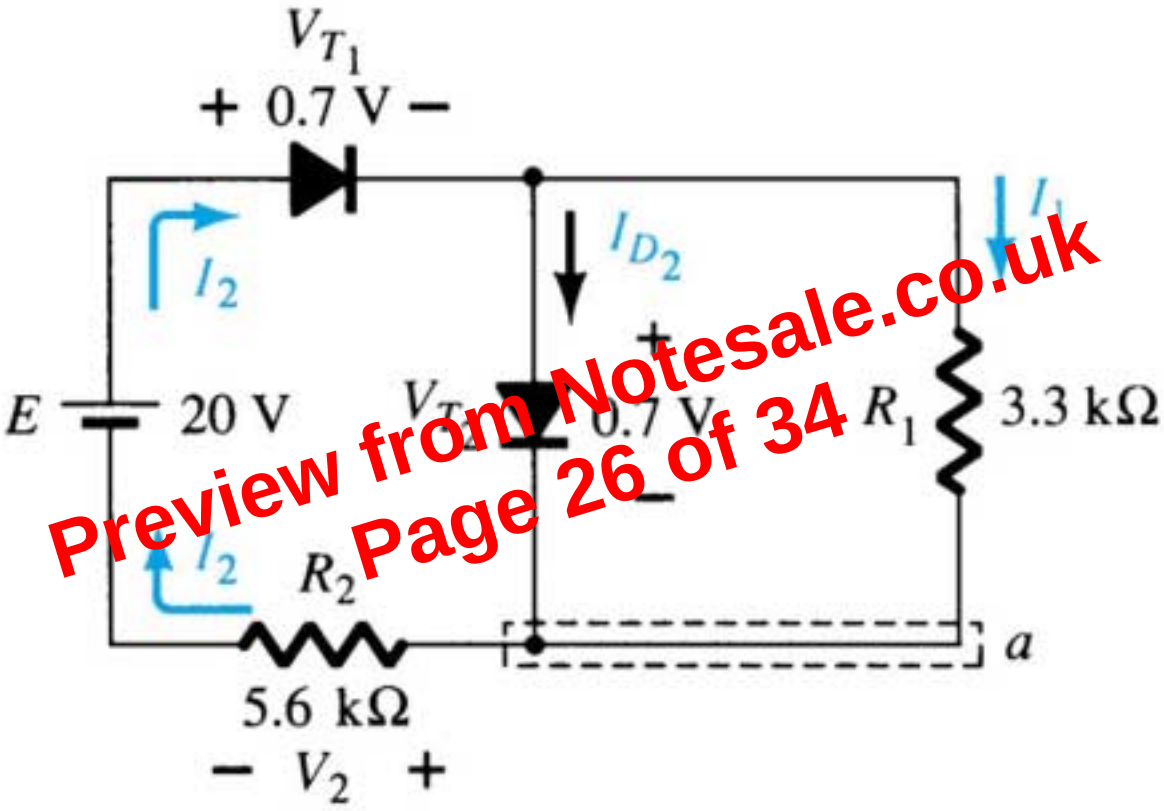
Load Line Analysis

- The intersection point is called Q point
- Same solution can be found by using nonlinear diode equation
- We can avoid heavy math using load line analysis.
- Exp from notes 1
- Exp from notes 2
- Exp from notes 3



Solution to example 3 using ideal model

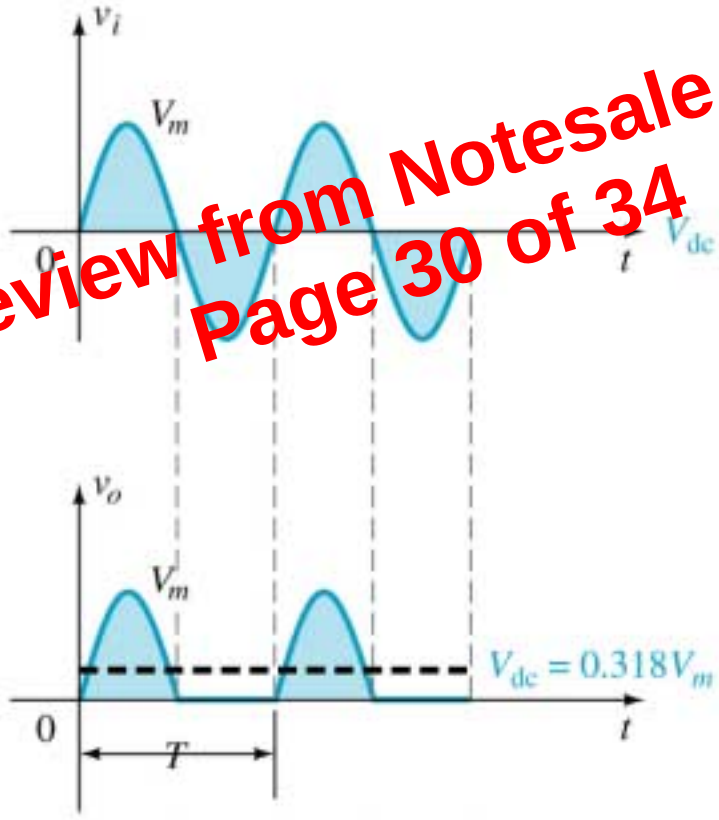
Example 10



Determining the unknown quantities for the above example

Half-wave Rectifier

- The total effect of diode on the output signal is given in below



Half-wave Rectifier

- For the half-wave rectified signal:

$$V_{dc} = 0.318\ V_m$$

- If the effect of V_T is also considered, the output of the system will as below
- $V_{dc} = 0.318\ (V_m - V_T)$
- See next Figure