

**PUSAT PENGAJIAN DIPLOMA
UNIVERSITI MALAYSIA PERLIS**

Tutorial 6

DKT214 – Electronic Circuits; Semester 1 2017/ 2018

1. Describe the basic concept of voltage regulation.
2. The nominal output voltage of a certain regulator is 8 V. The output changes 2 mV when the input voltage goes from 12 V to 18 V. Determine the line regulation and express it as a percentage change over the entire range of V_{IN} .
3. Determine the output voltage for the series regulator in Figure 1.
4. If R_3 in Figure 1 is increased to 4.7 kOhm, what happens to the output voltage?
5. If the zener voltage is 2.7 V instead of 2.4 V in Figure 1, what is the output voltage?
6. With the aid of a block diagram, illustrate the basic component of a shunt and series type of linear regulator.
7. List down three basic configurations of switching regulators.

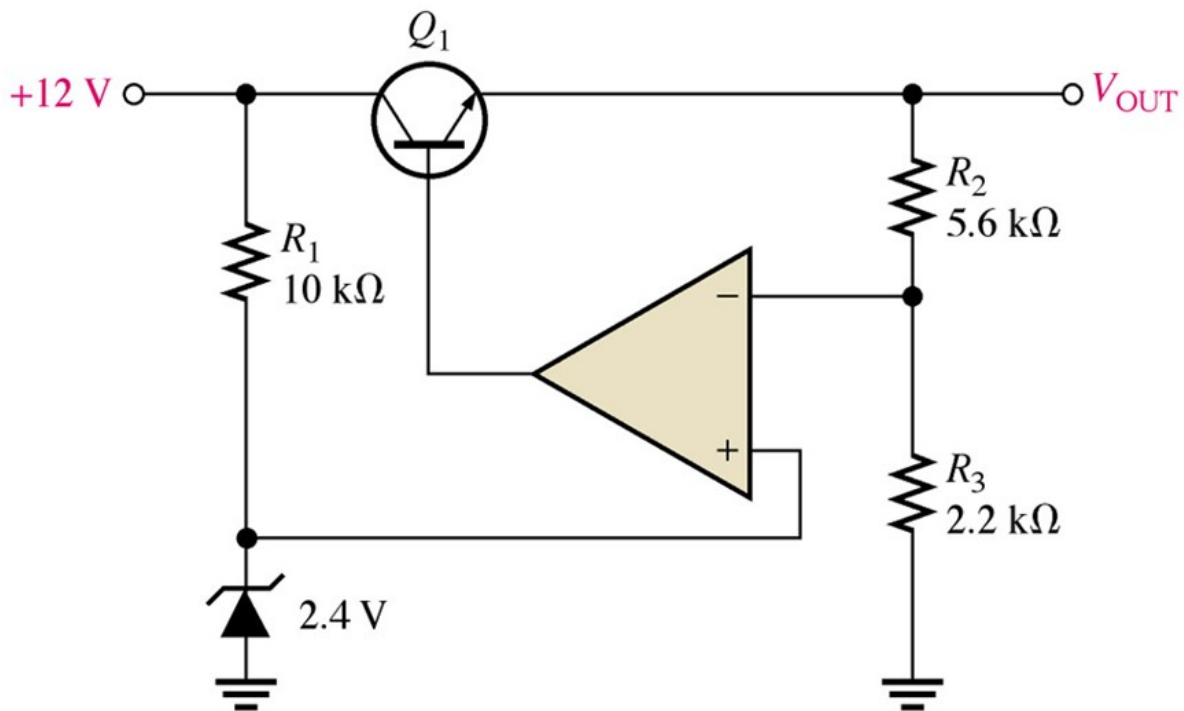


Figure 1