

### 7.3 RC COUPLED AMPLIFIER

Fig. 7.2 shows a two stage RC coupled amplifier. It consists of two stages of single stage transistor amplifier in CE configuration. Both the stages are biased using potential divider biasing through a common battery  $V_{cc}$ .

The two stages are coupled together through a Capacitor  $C_c$ . This capacitor is known as COUPLING CAPACITOR because it couples the two stages.

Capacitor offers a high resistance path to d.c. and a low resistance path to A.C.

(i)  $C_c$  does not allow D.C. to pass through it. Thus the two stages of amplifier are isolated from one another for D.C.

(ii)  $C_c$  allows a.c. to easily pass through it. Hence the two stages are coupled together for A.C.

Reactance offered by capacitor depends upon frequency of the signal. For low frequency signals, its value is high. Hence there will be some loss of signal for low frequencies.

R.C. coupled amplifiers are most commonly use as voltage amplifiers at the first stage all audio amplifiers such as in P.A. system, radio receiver, Television, record player and stereo system etc.

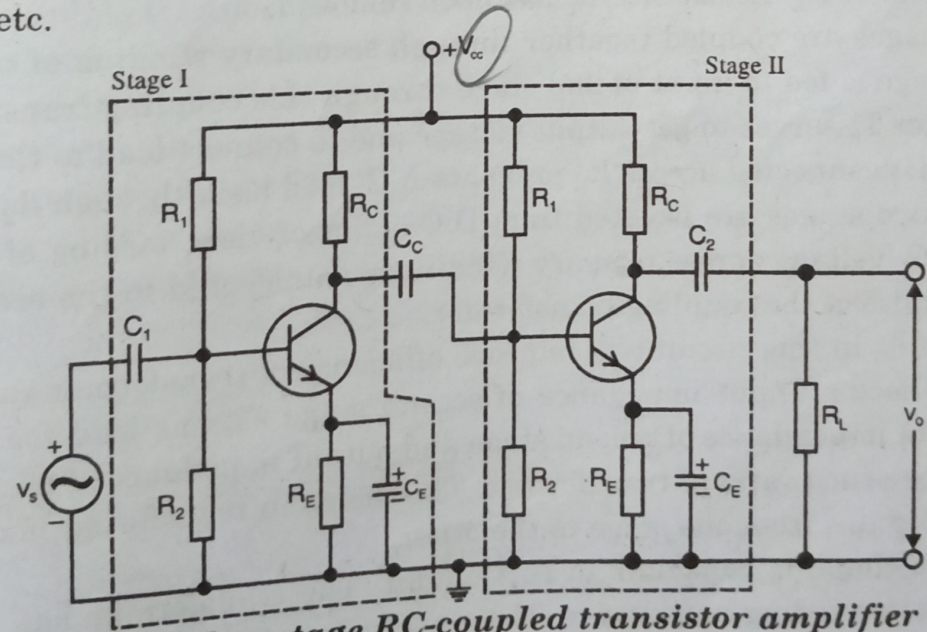


Fig. 7.2 Two-stage RC-coupled transistor amplifier

used in amplifier has already been discussed in chapter 6.