

Result Example-10-4

the circuit of given figure can be used for BCD D/A converter. The binary inputs corresponding to LSB are applied to b_3, b_2, b_1, b_0 and those corresponding to the next digit at b_7, b_6, b_5, b_4 . the value of r is chosen so as to make the input current of OP-AMP corresponding to LSD as $1/10$ th of that of current due to MSD, and is given by

$$\frac{(V(R) \cdot (8/7 \cdot R))}{(R \cdot (r + 8 \cdot R/7) + r \cdot 8/7 \cdot R)} = V(R)/(10 \cdot R)$$

$$r = 4.8R$$