Arab Academy for Science & Technology and Maritime Transport – Cairo Branch
College of Engineering & technology
Mechatronics department

EC534 – Analog and Digital Signal processing

Revision sheet

1. For the series diode configuration of Fig.1 determine V_D, V_R and I_D.

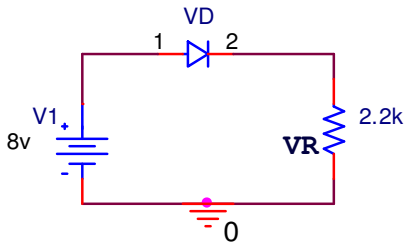

Figure 1

2. For the parallel diode configuration of Fig.2 determine V_o, I_1, I_{D1} and I_{D2}

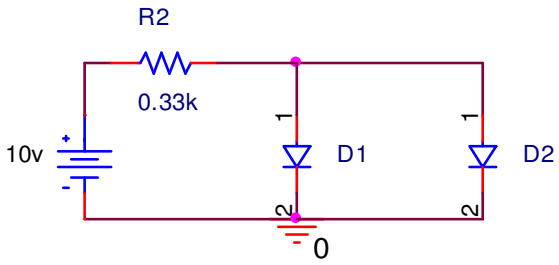

Figure 2

3. for the network of Fig.3
   Solve for D.C and A.C analysis, if V_{BE}=0.7V and $\beta = 100$
   a. Determine r_π
   b. *find* Z_i
   c. *calculate* Z_o
   d. *determine* A_v

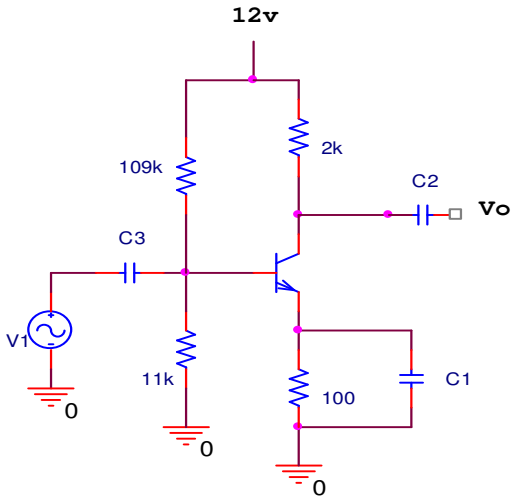

Figure 3

4. What input must be applied to the input of Fig.4 to result in an output of 2.4v?

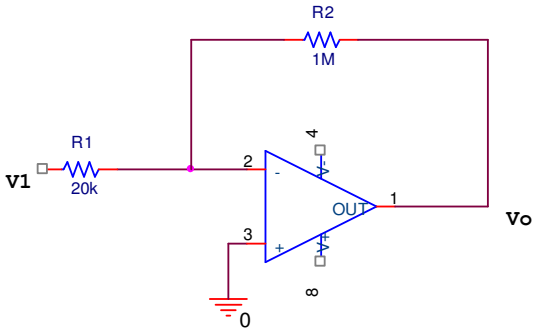

Figure 4

Assignment:

5. Determine I_E , I_B , I_C and V_C for fig.5

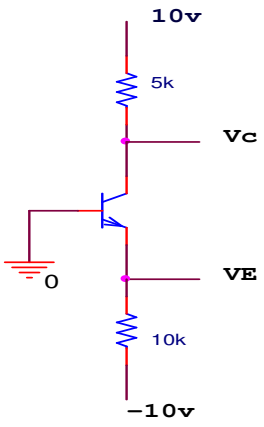

Figure 5

6. Calculate the output voltage of the circuit in Fig.6 for R_f=68kΩ

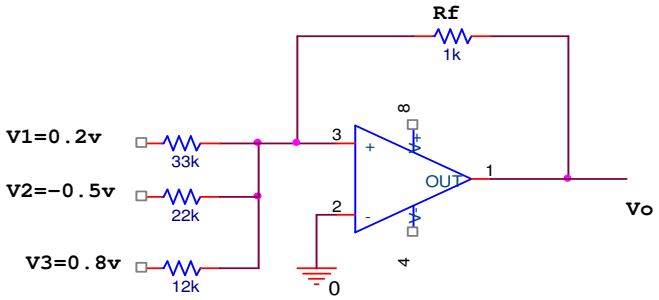

Figure 6

7. Calculate the output voltages V_2 and V_3 in the circuit of Fig.7

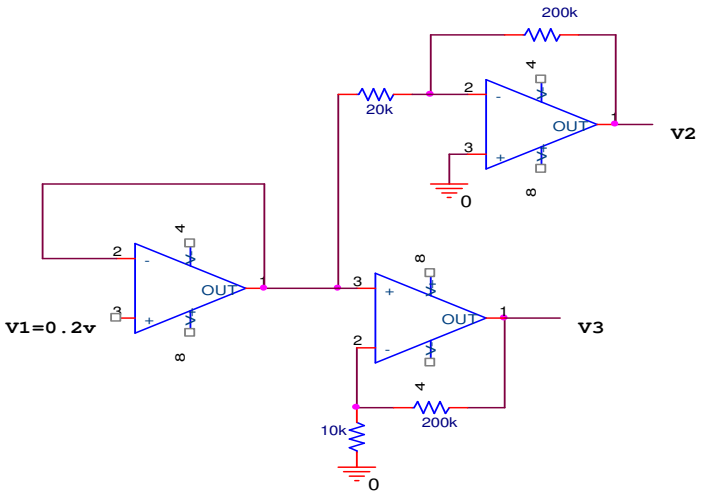

Figure 7