CSE350, LAB03

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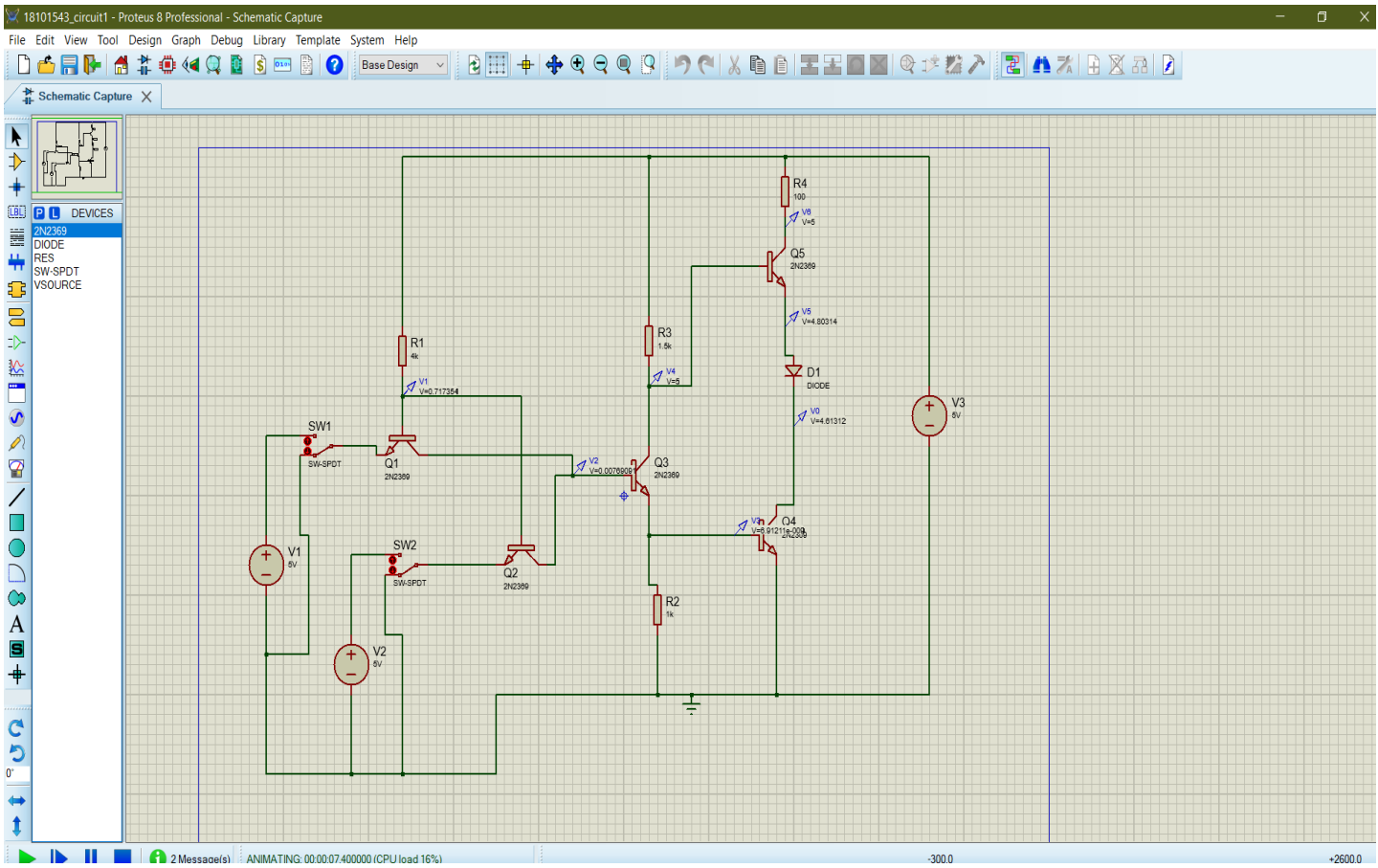
Section: 04.

Input A	Input B	Input(VA)	Input(VB)	V0	V1	V2	V3	V4	V5	V6
0	0	0	0	4.613	0.717	0.007 6	6.912	5	4.803	5
0	1	0	5	4.613	0.755	0.049	6.967	5	4.803	5
1	0	5	0	4.613	0.755	0.049	6.967	5	4.803	5
1	1	5	5	0.009	2.653	1.942	1.036	1.129	0.569	4.997



Ans. to the ques. no. 3-01

The totem pole stage is the output buffer. The totem pole also consists of complementary driven two transistors.

Ans. to the ques. no. 3-02

Totem pole is used in place of passive pull up ~~registo~~ resistors because pull-up resistors have very high output impedance which are not good for high loads.

Ans. to the ques-no. 3-03

T3 supplies the complementary ~~vol~~ voltages for the output transistors T4 and T5.

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Ans. to the ques. no. 3-04

If there were no D1 diode, then the transistor T3 would be in saturation. For this reason, excess current would pass through it which may be waste.

Ans. to the ques. no. 3-05

Open collector outputs of two or more gates can be connected together and the connection is called a wired AND, in case of totem pole gates we cannot wire two totem pole gates as the connection might produce excess current damage the device. When the logic gates are of opposite logic levels then the gates try to drive the wire to their own voltages which can cause malfunction. So, we cannot wire AND two totem pole.

Ans. to the ques. no. 3-06

The phase splitter splits the input signal into two separate signals with a difference of 180° difference.

Ans. to the Ques. no. 8-07