Quiz #14 EE 420/ECG 620 Spring 2020 Name: Sake
Open book and closed notes.
Show your work for credit and place a box around each of your answers.
Show your work for credit and place a box around each of your answers. $ W = 10^{-3} \text{ V} \implies 70 (000) = -60 \text{ dB} = 10^{-3}$
1. Estimate the input current, Is, and thus the input resistance in the following circuit. (5 points)
r, , , , , , , , , , , , , , , , , , ,
VDD Vbias1 Vbias1 P 1
VDD Vbias1 P_1u P_1u P_1u 704
VDD Vbias1—Vbias1
Vhigh—Vhigh Vhigh Vhigh
Vbias2 -Vbias2 Vout1 Vpcas -Vpcas -Vpcas
Vncas Vncas Vncas
Viow-Viow
White d White d
GND VDIAS4 VDIAS4 .tran 5m .tran 5m
.include cmosedu_models.txt
.options plotwinsize=0 SINE(0 1mV 1kHz)
Options plotwinsize=0 $ \begin{array}{cccccccccccccccccccccccccccccccccc$
a 1=12.4 20
July 30
[21204: 6.20h
0 1-1504 = 2.12/2
gul -1 3 1
(Book = 2724A = 9m)
(BOOK = 104 = 0101)
-1
g 1 -
ARINA -IT d'C
Ham -
12V-83H 543-1717=-10
$\frac{1}{2}$
120NA AC CKT (2) V_T = - Vgs = = = = = = = = = = = = = = = = = = =
1, V2 V 1-47K
0/-=/gn
(19