

ICS 3111: MICROPROCESSORS

CAT 2 TAKE AWAY

1. Write a BSR control word to set bits PC7 and PC0 and to reset them after 1 1-second delay.  
Include an assembly language program to perform the above task. 4marks
2. Write down the mode 0 control words for the following two cases: (a) Port A = Input port, Port B = not used, Port CU = Input port and Port CL = Output port. (b) Port A = Output port, Port B = Input port, Port C = Output port 2marks
3. Draw the Interrupt Acknowledge cycles for (a) RST instruction (b) CALL instruction 8marks
4. Show how the MEMR and MEMW signals are derived from IO/ M , RD and WR signals of PP 8085 2marks
5. Design a memory having size  $16k \times 8$  from  $4k \times 4$  memory modules 4marks