

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
II SEMESTER 2013-2014
EEE/CS/INSTR F241 MICROPROCESSOR PROGRAMMING AND INTERFACING
QUIZ #5-A (OPEN BOOK)

MARKS: 10

21-03-2014

DURATION: 30 MIN

ID:	NAME:	SEC:
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Note: Marks for each question is stated in the question.

- 1) The 80286 microprocessor is operating in protected mode. Based on the information given and table provided below

DS=1108 Instruction is movbx, [ffh] GDTR = 200000H

GDT Table

Data								Address
00	00	82	01	00	00	FF	FF	201100
00	00	B3	20	FF	00	FF	FF	201108
00	00	83	03	00	00	00	3F	201110
00	00	FC	0A	00	00	00	1F	201118
00	00	DF	B0	32	00	01	FF	201120
00	00	92	B1	00	00	0F	FF	201128

- a. Provide the physical addresses of the memory locations from which the data is fetched and stored in the bx register. (3 marks)

20FFFFH and 210000H

- b. Provide the RPL and the DPL (1 mark)

RPL= 00 and DPL=01

- c. State type of segment (1 mark)

Data Segment

2) Interface two 8KB EPROM chips, having RD', CS' and the required number of address and data lines with 8086, such that the memory address range assigned to them is FC000H to FFFFFH, using ONLY the following components: 6-i/p AND gate (01 no), 2-i/p NAND gate (02 nos), inverter (02 nos)(5 marks)

