

Birla Institute of Technology & Science, Pilani- KK Birla Goa Campus
 II Semester 2015-2016
 EEE/CS/INSTR F241- MICROPROCESSOR PROGRAMMING AND INTERFACING
 Quiz 1 (Open Book)

Date: 29-01-2016

Max Marks: 10

Duration: 30 Mins

ID No.

Name:

Instructions: Answer the questions in the space provide

1. In an 80386 processor that is working in real mode and 16-bit mode: Suppose that CS =1000_H , ES = 3000_H , DS=2000_H, SS = 4000_H ,ESI= 0000 0200_H, EDI = 0000 0100_H ,EBP = 0000 0004_H , EBX=0000 0010_H , EAX=0000 1000_H, ECX = 0000 0400_H, EDX = 0000 0020_H For the instructions given below determine the following. **[Give Values only in Hex and treat instructions as separate individual instructions]** [3+3+2]

a) **MOV EBX, DS: [EBP+ 4_H]**

Memory Address	20008
Addressing Mode	Register Relative
Machine Code	67 66 3E 8B 5D 04

b) **MOV [DI+BP+2000_H], EAX**

Address	42104
Addressing Mode	Base Relative plus Indexed
Machine Code	66 89 83 00 20

c) **MOV EDX, EBP** [*There are two machine codes possible for this instruction*]

Machine Code1	66 89 EA
Machine Code2	66 8B D5

- Q2. For the operation (-32_a) - (65_a). What will be the status of the following (Answer should be 1 if set 0 if reset) [4x0.5 =2]

Flag	Set/Reset
ACF	1
CF	0
SF	1
OF	0