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[Total No. of Questions: 02] Seat No: [Total No. of Pages: 01]

**G. H. Raisoni College of Engineering and Management, Pune.**

(An Autonomous Institution)

S.Y B. Tech (Engineering) (Term-III)

CAE-II WINTER-2020 ( 2020 Pattern)

**Computer Architecture & Microprocessor based systems(BITL19201)**

**[Time:1Hour] [ Max. Marks-20]**

**Course Outcome:**

Graduate shall be able to:

1. Describe fundamental units of Computer System
2. Understand the taxonomy of microprocessors and knowledge of contemporary microprocessors
3. Demonstrate programming using the various addressing modes and instruction set of 8086 microprocessor
4. Use the concept of memory management & multitasking of 80386 microprocessor.

**Instructions to the candidates:**

1. **(CO1/CO2/CO….)at the beginning of question/sub question indicates the course outcome related to the question.**
2. **All questions compulsory.**
3. **Neat diagrams must be drawn wherever necessary.**
4. **Figures to the right indicate full marks.**
5. **Assume suitable data, if necessary.**

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| CO | Sub  Question |  |  |
|  |  |  |  |
| CO3 | a) | Illustrate the performance of instruction and directives with example.  1)LEA 2).data 3)SAR 4)DD 5)JZ | [5] |
|  |  |  |  |
|  | b) | Draw the Assemble-Link-Debug Cycle and its input and output file | [5] |
|  |  | OR |  |
|  | c) | Calculate the effective and physical address of following instructions as well as output of instruction after execution.  DS:5000,SS=4000,CS=3000,SP=5667h, AX=0968h  1. MOV AX,[200+SP] 2. SUB AX,0278h | [5] |
|  |  |  |  |
| CO4 | a) | Compare the Macro and Procedure used in the program and example of it. | [5] |
|  |  |  |  |
|  | b) | Describe the working of pins in Microprocessor-80386.  1) NMI 2)WR/RD 3)NA 4)HOLD | [5] |