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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-1 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 |  |  |
|  |  |  |  |
| CO1 | a) | Differentiate the performance of Hardwired control unit and Micro programmable control unit with the help of diagram. | [5] |
|  |  |  |  |
|  | b) | Consider the signed decimal value, −14.25 and represent it in the format of Fixed and Floating point representation. | [5] |
|  |  | OR |  |
|  | c) | Draw flowchart of Booth’s algorithm for signed multiplication and Find the result after multiplication of following signed 2’s complement numbers. Multiplicand=11011; Multiplier=00111 | [5] |
|  |  |  |  |
| CO2 | a) | Describe the use of status bit in the flag register of 8086 with help of diagram. | [5] |
|  |  |  |  |
|  | b) | Calculate the physical address and Status of result ,If content of CS ,IP and Flag resister is following CS=2057 h , IP=5687h Flag=0000100010010101 | [5] |
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