** D.Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY**

**Set-: II**

**Q. Paper Code:**

**23SYCS203303**

**KASABA BAWADA KOLHAPUR-416006**

**(An Autonomous Institute)**

S. Y. B. Tech (CSE), Sem-III

**END SEMESTER EXAMINATION (ESE), Jan -2023**  Course Name: Computer Organization and Microprocessors, Course Code: 201CSL203

Seat No:

**Day and Date: Friday, 20.01.2023**

**Time: 10.00 am to 12.00 pm Max. Marks- 50**

***Instructions:***

1. *All questions are compulsory; however internal choices are given in question number 2 and 3.*
2. *Write equations wherever necessary.*

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| **BT** | **CO’s** | | **Q. No.** | |  | **Marks** |
|  |  | | **Q.1** | | **All Questions are compulsory** | **20** |
| **1,2** | **CO1** | | **a** | | Explain IAS computer system with neat diagram. | **6** |
| **1,2** | **CO2** | | **b** | | Explain ripple carry adder neat diagram and necessary equations. | **6** |
| **2,3** | **CO2** | | **c** | | Explain Booth’s algorithm with flowchart. Compute (-7) with (+3) using Booth’s algorithm. | **8** |
|  | | | | | | |
|  | |  | | **Q.2** | **Attempt any two out of three questions** | **10** |
| **1,2** | | **CO3** | | **a** | Explain K-way set associative mapping with neat diagram and equation. | **5** |
| **1,2** | | **CO3** | | **b** | Explain direct mapping with neat diagram. | **5** |
|  | | **CO3** | | **c** | List any five differences between RAM and ROM. | **5** |
|  | | | | | | |
|  | |  | | **Q.3** | **Attempt any two out of three questions** | **10** |
| **1,2** | | **CO4** | | **a** | List any five features of 8051 microcontrollers. | **5** |
| **1,2** | | **CO4** | | **b** | Explain the architecture of 8085 processor with neat diagram. | **5** |
| **1,2** | | **CO4** | | **c** | Explain the functional blocks of 8086 processor with neat diagram. | **5** |
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|  | |  | | **Q.4** | **All Questions are compulsory.** | **10** |
| **1,2** | | **CO5** | | **a** | List the features of 80386 processors. | **5** |
| **1,2** | | **CO6** | | **b** | Explain Interrupts handling in microprocessors with an analogy. | **5** |

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