**MUFFAKHAM JAH COLLEGE OF ENGINEERING & TECHNOLOGY**

**DEPARTMENT OF COMPUTER SCIENCE & ARTIFICIAL INTELLIGENCE**

**B.E. CSE (AI&ML) AICTE – IV SEM 2022-23**

**INTERNAL EXAMINATION – II January 2023**

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| **Course Code** | ES 303 EC | **Total Marks** | 20 |
| **Course Name** | DIGITAL ELECTRONICS | **Date & Time** |  |
| **Branch-Code** |  | **Duration** | 1 Hour |

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| **PART – A ( 3\*2 = 6 Marks)** | | | | |
| **ANSWER ALL THE QUESTIONS (SHORT ANSWER TYPE)** | | **(6 M)** | **CO’s** | **BTL** |
| 1 | List out the types of PLDs. | 2M | 3 | 2 |
| 2 | Explain the difference between Latch and Flip-flop. | 2M | 4 | 2 |
| 3 | What are the types of FSMs? | 2M | 5 | 2 |
| **PART – B ( 2\*7 = 14 Marks )** | | | | |
| **ANSWER ANY TWO QUESTIONS (LONG ANSWER TYPE)** | | **(14 M)** | **CO’s** | **BTL** |
| 4 | Draw the structures the type of PLDs. Explain the differences between them. | 7 M | 3 | 3 |
|  |  |  |  |
| 5 | Explain the SR flip flop with its neat circuit diagram, Truth table. | 7 M | 4 | 3 |
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| 6 | Draw the Block diagram of Moore and mealy state machines. And explain them with their differences. | 7 M | 5 | 3 |
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