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| **P.V.P Siddhartha Institute of Technology** |
| **Department of Computer Science and Engineering** |
| **Course: B.Tech** | **Year: II** | **Semester: I** | **Descriptive: II** | **A.Y:2024-25** |
| **Subject Code: 23ES1304** | **Subject Name: Digital Logic & Computer Organization** | **Regulation:PVP23** |
| **Duration:1 hr 30 min** | **Maximum Marks:30 Marks** | **Date:27-11-24** | **Session: F.N** |
| **Answer ONE Question from each section. Each Question carries 10 Marks. 3×10M=30M** |
| **Q. No**  | **Question** | **Marks** | **CO** | **Level** |
| **1 a)** | Explain different types of Instruction Formats with an example for each. | **5** | CO2 | L2 |
| **1 b)** | Explain booth multiplication algorithm for the example (-9 X -13) | **5** | CO2 | L3 |
|  | **OR** |  |  |  |
| **2 a)** | Differentiate register stack with memory stack. | **5** | CO2 | L4 |
| **2 b)** | Discuss in detail various addressing modes. | **5** | CO2 | L2 |
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| **3**  | Explain Associative memory in detail | **10** | CO1 | L2 |
|  | **OR** |  |  |  |
| **4 a)** | Discuss about auxiliary memory.  | **5** | CO1 | L2 |
| **4 b)** | What is cache memory? Explain its operation. | **5** | CO1 | L2 |
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| **5 a)** | Explain the purpose I/O interfaces between internal storage and external I/O devices with a neat sketch.  | **5** | CO2 | L2 |
| **5 b)** | Differentiate strobe control and handshaking mechanisms. | **5** | CO2 | L4 |
|  | **OR** |  |  |  |
| **6**  | With a neat sketch explain the operation of DMA controller and DMA transfer. | **10** | CO2 | L2 |

Course Coordinator

Module Coordinator Program Coordinator