

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA**

MID TEST-II

Course Name: Computer Architecture

Max. Marks: 20

Course Code: ECPC-211

Time Allotted: 50 Min

Date: 10.04.2024

Time: 10:30-11.20 AM

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1. Write microroutine for Branch instruction. Draw single bus organization showing necessary control path and data path for the same instruction. [5]
 2. Show a possible control sequence for implementing the instruction **MUL (R1), R2** [5]
(Assume result store in R2, higher order bits in the product if any are discarded, **use both single bus organization and multi bus organization**)
 3. Discuss microinstruction encoding methods with proper examples. [4]
 4. Discuss following: [3]
MFC, Control store
 5. Discuss Microprogrammed control and H/W control. Find out which type of control unit best suitable for RISC and CISC based processor. [3]
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