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FOURTH SEMESTER

MID SEMESTER EXAMINATION

Roll No. **1451049**

B.Tech. (CO/IT)

MARCH-2017

CO/IT-206 COMPUTER ORGANIZATION & ARCHITECTURE

Time: 1:30 Hours

Max. Marks: 25

**Note: Answer ALL questions. All questions carry equal marks.
Assume suitable missing data, if any.**

1. Write the micro-operations using a flowchart showing state transitions, that are required to execute the following instructions: (i) LDA (ii) ADD (iii) BUN (iv) BSA (v) ISZ
2. [a] Differentiate between hardwired and micro-programmed control units
[b] Differentiate between direct and memory address schemes
3. [a] Discuss the bus structure of a computer system.
[b] Register A holds the 8 bit binary 11011001. determine the B operand and logic micro operation to be performed in order to change the value in A to (a) 01101101 (b) 11111101.
4. What are the different phases of the instruction cycle? Explain using a flowchart.
5. Design an arithmetic, logic and shift circuit that can perform the following
 - (i) Add A and B
 - (ii) Increment B
 - (iii) Complement B
 - (iv) Shift B left