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Roll No.

FOURTH SEMESTER

B.Tech. (CO)

MID SEMESTER EXAMINATION

MARCH-2020

CO-206 COMPUTER ORGANIZATION AND ARCHITECTURE

Time: 1:30 Hours

Max. Marks: 25

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

- 1[a] Describe Bidirectional shift register.
 - [b] Design a hardware circuit to implement logical shift, arithmetic shift and circular shift operations. State your design specifications.
 - 2[a] What is difference between a direct and an indirect address instruction? Describe with examples.
 - [b] Explain in brief how a digital computer system works in a interrupt driven input-output programming.
 - 3 [a] Describe a memory in computer system. How many address lines; data lines and control lines are there in $32M \times 32$ memory.
 - [b] Draw and describe the block diagram of a basic computer hardwired control organization with decoders, control logic gates and a sequence counter.
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- 4 [a] What is instruction cycle. Describe various phases of instruction cycle in detail.
 - [b] Explain the differences sources for obtaining the next address in the micro-program sequencer.
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- 5 Write short notes: -
 - [a] First pass and Second pass assembler.
 - [b] Bus Architecture.