Code No: 153AH

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech II Year I Semester Examinations, March - 2022
COMPUTER ORGANIZATION AND MICROPROCESSOR
(Information Technology)

Time: 3 Hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks
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1.a) Draw and explain the Block diagram of a Digital Computer.
 b) Explain the Computer Design and Computer Architecture. [7+8]

2.a) Discuss the Memory Reference Instructions.
 b) Write and explain the control sequence for execution of an unconditional branch instruction. [7+8]

3. With the help of a diagram, explain the 8086 Processor Architecture. [15]

4.a) Explain the I/O Addressing Capability.
 b) Discuss the machine language instruction formats. [7+8]

5. Illustrate the Stack structure of 8086. [15]

6. Explain the Interrupts and Interrupt service routines. [15]

7. Compare interrupt-driven data transfer scheme with DMA. Using block diagram, explain interrupt-driven transfer scheme. [15]

8.a) What is associative memory? Why is it faster than the main memory? Explain its hardware organization in detail.
 b) Give a brief note on Arithmetic Pipeline. [8+7]

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