

Code No: 153AH**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

- 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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