

**Code No: 155CF****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, February - 2022****MICROPROCESSORS AND MICROCONTROLLERS****(Common to EEE, EIE)****Time: 3 hours****Max. Marks: 75**

**Answer any five questions**  
**All questions carry equal marks**

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- 1.a) Draw the internal architecture of 8086 microprocessor and explain the function of each block in detail.
- b) List out different string manipulation instructions used in 8086 microprocessor and explain each one in detail. [8+7]
2. Explain the various addressing modes of 8086 microprocessor with examples. [15]
- 3.a) Discuss about I/O ports of 8051 microcontroller.
- b) Explain PUSH and POP instructions with examples. [8+7]
4. Explain the programming timer interrupts of 8051 microcontroller. [15]
5. Explain the steps involved in the interfacing of key board to 8051. [15]
- 6.a) Write short notes on serial communication standards.
- b) Explain the interfacing procedure of an 8-bit ADC with 8086 microprocessor. [6+9]
- 7.a) Describe various modes of operation of ARM processor.
- b) What are the salient features of ARM instruction set? [8+7]
8. List the main features of OMAP processor. With a neat diagram, explain the architecture of OMAP processor. [15]

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