

Code No: 09A50506

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year I Semester Examinations, November/December-2013

MICROPROCESSORS AND INTERFACING

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions  
All questions carry equal marks

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- 1.a) What is the major difference between architectures of 8085 and 8086, Explain.
- b) Explain the function of DAA and HALT instruction with an example. [7+8]
- 2.a) Explain different ways of passing parameters to subroutine.
- b) Explain the functions of the following pins. [7+8]
  - i)  $MN/\overline{MX}$
  - ii) HLDA
  - iii)  $DT/\overline{R}$
  - iv) ALE
- 3.a) Show the circuit required to generate the upper and lower I/O strobes in minimum and maximum modes of 8086.
- b) Explain the need for DMA and DMA data transfer Method. [7+8]
4. How many types of modes of operations are there in 8255 PPI and explain them. [15]
- 5.a) What is the significance of interfacing cascading of interrupt controller?
- b) Explain 8259 PIC Architecture in detail. [7+8]
- 6.a) Explain the functional pins of RS232C.
- b) How to convert RS232C to TTL conversion explain in detail. [7+8]
- 7.a) Explain the stack operation in 8051 microcontroller.
- b) How many types of addressing modes of 8051 microcontroller. [7+8]
8. Discuss in detail Memory and I/O interfacing of 8051. [15]

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