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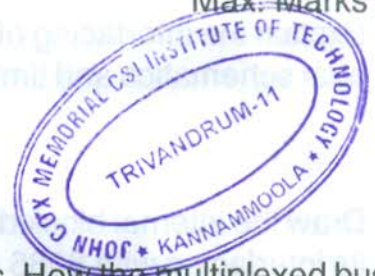
Name :

**Fifth Semester B.Tech. Degree Examination, November 2014
(2008 Scheme)
08.505 : MICROPROCESSORS AND INTERFACING (R)**

Time : 3 Hours

Max. Marks : 100

PART – A



Answer **all** questions. **Each** question carries **4** marks.

1. Explain the need of multiplexing address and data bus. How the multiplexed bus can be demultiplexed ?
2. Explain briefly how \bar{R}/\bar{W} control signals for memory and I/O are generated.
3. Draw the circuit of a 3-bit binary weighted resistor DAC and explain its working.
4. Give the format of 8086 flag register and explain each bit.
5. Explain the various directives in 8086.
6. Explain the string addressing mode of 8086 with an example.
7. Explain the maximum mode pin functions or signals (pin no 24–31) of 8086 microprocessor.
8. What are the three modes of operation available to 8255 ?
9. If the 8279 CLK pin is connected to a 3.0 MHz clock, program the internal clock.
10. Explain how the read back control word functions in the 8254. **(10×4=40 Marks)**

**PART – B**

Answer **any one** question from **each** Module. **Each** question carries **20** marks.

Module – I

11. Draw the internal architecture of 8085 and explain. Compare it with 8086 processor.
12. Explain the interfacing of a 10 bit DAC (AD 7558) with 8085 microprocessor with neat schematics and timing diagram.

Module – II

13. Draw the internal block diagram of 8259 A priority interrupt controller and explain its interfacing with 8086 microprocessor.
14. a) Write an ALP (in 8086) to sort 'n' numbers in ascending order.
b) Explain interrupt handling in 8086.

Module – III

15. Draw the internal block diagram of 8251A USART and explain the interfacing of 8251 with 8086.
16. Draw the internal block diagram of 8279 and explain the interfacing of 8279 with 8086.