Reg. No. : | | | | | | | | | | |

Question Paper Code: 31455

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fifth Semester

Electronics and Communication Engineering

01UEC505 – MICROPROCESSORS, MICROCONTROLLERS AND APPLICATIONS

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is the function of program counter in 8085?
2. List the interrupts of 8085..
3. What physical address is generated by 4370H:5671H and 9840H:0599H.
4. List the segment registers of 8086.
5. Give the IO control word format of 8255.
6. How DMA is initiated.
7. Enumerate the difference between microprocessor and microcontroller.
8. What is the significance of EA pin.
9. Draw the interface of DAC with microcontroller.
10. Give the applications of stepper motor.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain the internal architecture of Inter 8085 microprocessor. (16)

Or

(b) Draw the timing diagram for the instruction STA 8255H. Assume all other relevant details. (16)

12. (a) Explain the various addressing modes of 8086 microprocessor with suitable examples. (16)

Or

(b) Draw and discuss the interrupt structure of 8086. (16)

13. (a) Explain with necessary diagrams the operation of 8255 programmable peripheral interface. (16)

Or

(b) Explain the internal architecture of a DMA controller and its operation. (16)

14. (a) Explain in detail the architecture of 8051 microcontroller with a neat diagram. (16)

Or

(b) Describe the different modes of operation of timers/counters in 8051 with its associated registers. (16)

15. (a) With a neat diagram explain the interface of stepper motor with 8051 microcontroller. Also write an ALP to run the motor in both anticlockwise and clockwise direction. (16)

Or

(b) With neat sketch, explain the microprocessor base Traffic light control system. (16)

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