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Question Paper Code: 35405

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

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. Distinguish between the shift and rotate instructions of 8085.
2. Mention the advantages of using the Direct memory access.
3. List out the flags present in 8086 microprocessor.
4. What are the different types of interrupts supported in 8086?
5. Why interfacing is needed for I/O devices.
6. How DMA is initiated.
7. What are the features of 8051 microcontroller?
8. Illustrate the difference between microprocessor & micro controller.
9. State various commands associated with LCD module.
10. Give the applications of stepper motor.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain in detail the addressing modes of 8085 with suitable examples. (16)

Or

- (b) Draw the architecture of 8085 Processor and explain the various blocks. (16)
12. (a) Enumerate about the architecture of 8086 microprocessor with a block diagram and also explain its functions in detail. (16)

Or

- (b) List and describe the data transfer group and bit manipulation group of 8086 instructions. (16)
13. (a) Explain with necessary diagrams the operation of 8255 programmable peripheral interface. (16)

Or

- (b) Draw and explain the block diagram of 8254 Programmable interval timer. Also explain various modes of operation. (16)
14. (a) Describe in detail about 8051 microcontroller memory. (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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