

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 35045

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

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. List the operation modes of 8255.
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. How is the microcontroller used for the traffic light control application?

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) Describe the operation of interrupt controller 8259. (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 complete example, explain the design of traffic light controller using microcontroller. (16)

Or

- (b) Explain how microcontrollers and microprocessors can be used for the washing machine control application. (16)
-