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**Question Paper Code: 34040**

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

Fourth Semester

Computer Science and Engineering

(Common to Information Technology)

01UEC423 - MICROPROCESSORS AND MICROCONTROLLERS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Mention the significance of PC and SP.
2. What is the use of ALE?
3. Why status signals are provided in microprocessor?
4. State the significance of LOCK signal in 8086.
5. Write the functions of I/O processor.
6. What is the need of co-processors? Give example?
7. What is a programmable peripheral device?
8. Why is key de-bouncing required in keyboard interfacing?
9. Specify the call statement in 8051 with its significance.
10. List the features of 8051 microcontroller.

PART - B (5 x 16 = 80 Marks)

11. (a) Give suitable example and explain the addressing modes of 8085.

(16)

Or

- (b) With block diagram explain a logical functions of 8085 micro-processors. (16)
12. (a) Draw the pin descriptions for 8086 and status signal defined in 8086. (16)
- Or
- (b) Explain the physical memory organization in an 8086 system. (16)
13. (a) With necessary diagram describe the signals necessary for performing communication between CPU and IOP. (16)
- Or
- (b) Write the important registers and functions designed in 8089. (16)
14. (a) Describe in detail about the operation of programmable timer (8253) under different modes. (16)
- Or
- (b) With block diagram explain the role of direct memory access controller in mass data transfer. (16)
15. (a) Discuss the registers available in 8051 for serial communication. (16)
- Or
- (b) Describe about memory and I/O addressing by 8051. (16)
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