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**Question Paper Code: 35304**

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

Fifth Semester

Electrical and Electronics Engineering

01UEE504 – MICROPROCESSORS AND MICROCONTROLLER PROGRAMMING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. What is a flag? List the flags of 8085?
2. What is ALE?
3. How PUSH B instruction is executed? Give the stack register after execution?
4. How is time delay generated using Subroutines?
5. What is the purpose of overflow flag in 8051 Microcontroller?
6. Mention the interrupts of 8051 microcontrollers.
7. What is the need for 8259 PIC?
8. What are the functions of USART.
9. What is the purpose for scan section in Keyboard interface?
10. State the principle of microcontroller based Stepper motor control System.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain the architecture of 8085 microprocessor with neat diagram. (16)

Or

(b) Draw the timing diagram for the execution of the instruction MOV A, B in 8085 processor and explain. (16)

12. (a) Discuss about the instruction set of 8085 microprocessor with example. (16)

Or

(b) Write an assembly language program based on 8085 microprocessor instruction set which uses a Lookup table. (16)

13. (a) With neat sketch explain the architecture of 8051 microcontroller. (16)

Or

(b) Discuss about the organization of Internal RAM and Special function registers of 8051 microcontrollers. (16)

14. (a) Explain with neat sketch, the A/D and D/A converter interfacing with 8085 Microprocessor. (16)

Or

(b) Explain the block diagram of 8251 in detail and explain the two control words in detail. (16)

15. (a) Explain about the closed loop control of servo motor using 8051 Microcontroller. (16)

Or

(b) Explain in detail about the keyboard interfacing with the 8051 microcontroller. (16)

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