

G 1567

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2016

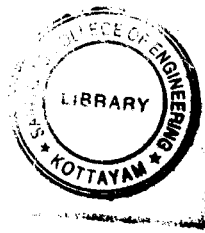
Fourth Semester

Branch : Computer Science and Engineering

CS 010 405 – MICROPROCESSOR SYSTEMS [CS]

(New Scheme – 2010 Admission onwards)

[Regular/Improvement/Supplementary]



Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. Discuss the function of ALU of 8085.
2. Discuss the instruction cycle and machine cycle.
3. What are software and hardware interrupts?
4. Discuss how to determine the control word of 8255 Programmable Peripheral Interface.
5. What are various operating modes of 8253 Programmable Interval Timer.

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. Explain direct and indirect addressing with example.
7. Explain fetch operation of 8085 UP.
8. Explain polling concept.
9. Distinguish between synchronous and asynchronous data transfer.
10. Discuss how 8253 is used to generate square wave.

(5 × 5 = 25 marks)

Part C

Answer all questions.

Each full question carries 12 marks.

11. Explain different addressing modes of 8085 UP with one example for each.

Or

12. With a neat diagram, explain the architecture of 8085 UP.

Turn over

13. Explain memory mapped I/O scheme. How is it different from I/O mapped I/O scheme.

Or

14. Draw the timing diagram of the instruction MVI A, 08 and explain it.

15. Explain the working of programmable interrupt controller 8259.

Or

16. Explain hardware and software interrupts.

17. Explain DMA data transfer scheme.

Or

18. Explain how series data transmission can be achieved using 8251 USART.

19. Draw the block diagram of 8253 programmable interval timer and explain its working.

Or

20. With the help of a circuit schematic, explain how 8255 programmable peripheral interface can be interfaced to a UP 8085.

(5 × 12 = 60 marks)

