



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PHYSICS

FIFTH SEMESTER – APRIL 2017

PH 5407- ELECTRONICS - II

Date: 03-05-2017
01:00-04:00

Dept. No.

Max. : 100 Marks

PART A

Answer all questions:

(10x2=20 marks)

1. Draw the circuit of a Logarithmic amplifier.
2. What are active filters?
3. What are the disadvantages of a parallel A/D converter?
4. What will be the output voltage of a 4 bit R-2R ladder corresponding to the binary inputs (a) 1000 (b) 1100.
5. What is the function of an accumulator?
6. If the 8085 adds 87H and 79H, specify the contents of the accumulator and the status of the S, Z, and CY flag?
7. Write an asm program to subtract two 8 bit numbers in direct mode of addressing.
8. Write a note on Machine control instructions.
9. Draw the circuit of Astable multivibrator using 555 timer.
10. What is Phase locked loop?

PART B

Answer any four questions:

(4x7.5=30 marks)

11. With a neat diagram, explain the working of an astable multivibrator using op amp.
12. Describe the working of a 3 bit flash A/D converter.
13. Explain in detail the data transfer and branching instructions of microprocessor 8085.
14. Write a program to multiply two 8 bit numbers in indirect mode of addressing.
15. Explain the working of 555 timer with a neat circuit diagram.
16. Explain the 5 bit binary weighted D/A converter.

PART C

Answer **any four** questions:

(4×12.5=50 marks)

17. Explain the working of a second order High pass and Low pass filters.
18. Explain in detail the working of a 4 bit R-2R ladder D/A converter.
19. Explain with a neat diagram the internal architecture of microprocessor 8085.
20. Write an asm program to find the largest among 10 numbers in an array.
21. Explain in detail the internal architecture and working of LM567 PLL.
22. Discuss the working of an op – amp as an integrator and differentiator.

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