LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PHYSICS

FIFTH SEMESTER – APRIL 2017

PH 5404/PH 5401 - ELECTRONICS - II

Date: 03-05-2017   Dept. No.   Max. : 100 Marks
01:00-04:00

Part A

Answer all Questions: **(10×2 = 20 marks)**

1. Draw the circuit of logarithmic amplifier.
2. Mention some of the linear applications of op amp.
3. Give the expression for output voltage for a 5 bit binary weighted D/A converter?
4. What is accuracy in D/A converters?
5. Write any four advantages of IC.
6. What is VLSI?
7. Write an asm program to add two 8 bit numbers in microprocessor 8085.
8. What are registers?
9. Write the machine control instructions.
10. Give any three instructions that clear the accumulator.

Part B

Answer _any four_ Questions: **(4×7.5 = 30 marks)**

11. Explain in detail the second order high pass and low pass filters.

12. With a neat diagram, explain the working of a parallel A/D converter.

13. Discuss in detail the classification of IC's based on their structure.

14. Explain the arithmetic and logical instructions in microprocessor 8085

15. Write an asm program to find the square root of a given number.

16. Explain in detail the working of a 5 bit binary weighted D/A converter.

Part C

Answer **any four** Questions: (4×12.5 = 50 marks)

17. Explain in detail the working of Op amp as an integrator and differentiator.

18. Explain with a neat diagram, the working of an R-2R ladder D/A converter.

19. Name and explain the different processes in preparing the surface of a semiconductor wafer for fabricating an IC.

20. Explain in detail the architecture of microprocessor 8085.

21. (a)Explain the various addressing modes of microprocessor 8085.

    (b)Write a program to multiply two 8 bit numbers.

22. Write an asm program to find the largest of 10 numbers in an array.

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