LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **PHYSICS**

SECOND SEMESTER – **JUNE 2015**

PH 2107 - MICROPROCESSOR

Date : 01/07/2015   Dept. No.   Max. : 100 Marks

Time : 10:00-01:00

PART A

Answer **ALL** the questions   **(10 × 2 = 20)**

1. What is microprocessor?
2. What is multiplexing and what is its advantage?
3. What is addressing?
4. List the three instructions that can be used to clear the accumulator?
5. Assuming A= (AD) & B=(84),Predict the status of all the flags after ADD B instruction.
6. Define Opcode.
7. How 8259 is programmed?
8. What is polling?
9. Write a note on Intel 8255?
10. What is programmed I/O?.

PART – B

Answer any **FOUR** questions   **(4 × 7.5 = 30)**

11. Discuss the flag structure of 8085 in detail.
12. Explain the different types of addressing mode of 8085 with an example.
13. Write a program to multiply two 8 bit numbers using direct addressing mode.
14. Explain software polling with a neat block diagram.
15. List out five differences between memory mapped I/O and standard I/O mapped I/O.

PART – C

Answer any **FOUR** questions   **(4 × 12.5 = 50)**

16. Explain the internal architecture of 8085 with block diagram.
17. Write an assembly language program to arrange 10 bytes of data stored in memory starting from 4200H.
18. a) Specify the register contents and the flag status as the following instructions are executed one after the other. Assume all the flags are in reset condition, **(6.5)**

    MVI A, 56H;   ADI 34H;   MVI B, 4DH;   ORA B;   HLT

    b) Explain PUSH and POP instructions with example. **(6)**
19. With a neat block diagram,explain the working of the programmable interrupt controller 8259.
20. Draw the block diagram of Programmable peripheral interface 8255 and explain its working.

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