LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc., B.C.A. DEGREE EXAMINATION – **COMPUTER SCI. & COMPUTER APP.**

THIRD SEMESTER – **NOVEMBER 2016**

PH 3210 – MICROPROCESSOR

Date: 10-11-2016 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

PART A

ANSWER ALL QUESTIONS **(10×2=20 marks)**

1. How many address and data lines does microprocessor have?
2. What is ALE?
3. What is a flag?
4. Give the control flags of 8086.
5. What is a macro?
6. Define ASSUME directive.
7. State the difference between vectored interrupts and non vectored interrupts.
8. What is interrupt I/O?
9. Give two reasons for breaking a program into small parts.
10. What is a role of an interrupt service routine?

PART B

ANSWER ANY FOUR QUESTIONS **(4×7.5=30 marks)**

11. What are the different status flags in µP8086? When they are set or reset?
12. Define the directives (i) EQU (ii) ORG (iii) DD (IV) DUP.
13. Explain the different Rotate instructions of µP8086.
14. Write a program to add two 16 bit numbers named NUM1 and NUM2 in MASM.
15. Explain with a neat diagram the three states of a multi programming system.
16. Explain how priority may be assigned using Daisy chain with a diagram.

PART C

ANSWER ANY FOUR QUESTIONS **(4×12.5=50 marks)**

17. Describe the function of Bus Interface unit and execution unit with the block diagram.
18. (a)Write an MASM Program to multiply two 8 bit numbers stored in memory locations NUM 1 and NUM 2. (8.5 marks)
    (b)Define the following pins (i)$\overline{DEN}$ (ii)DT/R. (4 marks)
19. Describe the process states of iRMX86 with a neat diagram.
20. (a)What is PIC 8259? (2.5 marks)
    (b)Explain the working of 8085 with 8259 with a neat block diagram. (10 marks)
21. Write short notes on (i) semaphore operation (5 marks) (ii)common procedure sharing(7.5 marks)
22. (a) Explain the various addressing modes of 8086 with example. (8.5 marks)
    (b) Write a short note on segment register. (4 marks)

****