LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – NOVEMBER 2017

PH 3210 - MICROPROCESSOR

Date: 15-11-2017 Dept. No. Max. : 100 Marks
Time: 01:00-04:00

PART-A

Answer ALL questions **(10 x 2 = 20)**

1. What are the modes in which µP8086 operates?
2. Write a note on the index registers of µP8086?
3. Explain the ORG derivative of MASM with an example.
4. What is an assembler?
5. Calculate the physical address for CS=$1E00_H$ and IP = $4325_{H.}$
6. State two differences between vectored and non vectored interrupts.
7. What is an interrupt I/O?
8. What is semaphore? Name the operators.
9. What is modular programming?
10. Define Macro.

PART- B

Answer any Four Questions. **(4×7.5=30)**

11. Name the different addressing modes available in microprocessor8086.
12. Write a program to add two 8 bit numbers named NUM 1 & NUM 2 using MASM.
13. Explain with a neat diagram the three states of a multi programming system.
14. Explain common procedure sharing with a diagram.
15. Discuss the process of assembling and linking in MASM.
16. Discuss the sequence of operations that will take place when 8086 responds to an interrupt.

PART -C

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

17. Explain the internal architecture of µP8086 with a functional block diagram.

18. (a) Explain with a neat diagram the three states of a multi programming system. (8marks)

(b) At the end of the following sequence of instruction indicate the condition of SF, ZF and CF (4.5 marks)

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MOV AL, 1AH
MOV BL,2F H
CMP AL, BL
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19. Discuss the function and operation of the interrupt controller 8259.

20. Describe the process states of iRMX 86 with a neat diagram.

21. (a) Discuss the ROTATE instructions of µP8086 in detail.

(b)Define the directives: (i) ASSUME (ii) STOSW.(4 Marks)

22. Develop an MASM program to divide 32 bit number by 16 bit result.

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