LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

FIFTH SEMESTER – **NOVEMBER 2022**

17/18UCS5ES03 – SYSTEMS PROGRAMMING

Date: 30-11-2022   Dept. No.   Max. : 100 Marks
Time: 09:00 AM - 12:00 NOON

PART – A   (10 x 2 = 20 Marks)

Q. No   **Answer ALL the Questions**

1   Write the functions of an Operating system.

2   Define Assembler.

3   Expand MAR and MBR.

4   What is Pseudo-op?

5   Define Macro.

6   Draw the structure of Macro name table.

7   What is the purpose of Overlays?

8   State the functions of Loader.

9   What is Symbol table?

10 Define Lexeme.

PART – B   (5 x 8 = 40 Marks)

Answer ALL the Questions

11   (a) Explain about the Components of System Programming.

(Or)

(b) Explain any two basic 360 Data formats.

12   (a) Compare Machine Language and Assembly Language.

(Or)

(b) Draw the Micro flowchart for ADD instruction.

13   (a) Write short notes on Nested Macros.

(Or)

(b) Explain about Macro instruction with arguments.

14   (a)`Explain about Subroutine linkages.

(Or)

(b) Discuss the advantages and disadvantages of Absolute Loader Scheme.

15   (a) Discuss about the general model of a Compiler.

(Or)

(b) Write short notes on the intermediate form of a Compiler.

Answer any TWO Questions

16   (a) Elaborate about the general structure of IBM 360 Machine.   (10)

     (b) Discuss about the different types of Instruction formats used in IBM 360   (10)
machine.

17   (a) Explain in detail the algorithm for Pass1Assembler with the flowchart.   (10)

     (b) Explain the implementation process of Macro Processor with flow charts.   (10)

18   (a) Explain the following Loader Schemes.   (10)

       (i) Compile and Go Loaders   (ii) General Loader scheme.

     (b) Explain about the phases of Compiler.   (10)

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