

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



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

**FIFTH SEMESTER – NOVEMBER 2019**

**17UCS5ES03 – SYSTEMS PROGRAMMING**

Date: 06-11-2019

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART A**

**ANSWER ALL QUESTIONS:**

**10 x 2 = 20**

1. What is Systems programming?
2. Expand EBCDIC and ASCII.
3. Define USING and START Pseudo op.
4. Write the functions of Assembler.
5. Define Macros.
6. Write down the structure of argument list array.
7. What are the functions of Loader?
8. Give an example for Absolute loader.
9. Define compiler.
10. What is Syntax Analysis?

**PART B**

**ANSWER ALL QUESTIONS:**

**5 x 8 = 40**

- 11.a) Explain about the components of system programming.  
(OR)  
b) Write a short note on Machine language.
- 12.a) Write short notes on Machine-Op table.  
(OR)  
b) Discuss in brief about the Data structures used in design of an Assembler.
- 13.a) Elaborate about Macro calls within Macro.  
(OR)  
b) Explain about the basic tasks performed by macro instruction processor.
- 14.a) Write the procedure for design of an Absolute loader.  
(OR)  
b) Explain the Cards and External Symbols used in the design of Direct Linking Loader.
- 15.a) Explain about the general model of a Compiler.  
(OR)  
b) Write short notes on intermediate form of a Compiler.

PART C

ANSWER ANY TWO QUESTIONS:

2 x 20 = 40

16.a) Explain about the General structure of IBM 360 Machine.

b) Explain in detail about the algorithm and draw the flowchart for Pass 2 Assembler.

17.a) Elaborate about Macro Processor two pass algorithm with flow charts.

b) Discuss about any two Loader Schemes in detail.

18. a) Explain about the phases of Compiler.

b) Discuss about the different types of instruction formats used in IBM 360 machine.

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