MCA-15

June - Examination 2016

MCA IInd Year Examination

System Programming

Paper - MCA-15

Time : 3 Hours]   **[Max. Marks :- 80**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A $8 \times 2 = 16$

(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

1) (i)   What are the phases and passes of a language processors?

   (ii)   Grammar has how many components.

   (iii) What do you understand by Literals?

   (iv)   The output of the linker (LINK command) is stored in which file? Give its extension.

   (v)   What are Relocatable programs?

   (vi)   How to perform resolution of externally defined symbols?

   (vii) Define absolute loader.

   (viii) What is bootstrap loader?

Section - B   4 × 8 = 32
(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 8 marks.

2) Define compiler. Mention the different phases of a compiler.

3) Discuss different data structure used by an assembler.

4) What is bootstrap loader?

5) Why symbol table is required?

6) What are the phases and passes of a language processors?

7) What is scanning and parsing? Differentiate between them.

8) Define LR grammar. Enumerate different types of LR grammar.

9) Discuss pure and impure interpreter.

Section - C   2 × 16 = 32
(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 16 marks.

10) What are different kinds of assembly language statement? Discuss the advanced assembler directives with example.

11) Differentiate between:

    (i) Machine dependent and machine independent loader feature.

    (ii) Dynamic Linking and Dynamic loading

12) Define compiler. Explain the different phases of a compiler.

13) Define NFA. Draw a NFA that matches all strings that contain either a multiple of 3 1's or a multiple of 5 1's.

———