Roll No.

MCA-11/MSCIT-12

Fourth Semester Examination-2015

MCA-15/M.SC.IT-15

System Software

Time: 3 Hours

Maximum Marks: 60

Note : This paper is of sixty (60) marks divided into three (03) sections A, B, and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section - A

(Long Answer Type Questions)

- Note : Section 'A' contains four (04) long-answer-type questions of fifteen (15) marks each. Learners are required to answer any two (02) questions only. (2×15=30)
- 1. What is System Software? Classify System Software?
- 2. Explain the following:
 - (a) Data Structure
 - (b) Assembly language
 - (c) Macros
 - (d) Shared libraries

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- 3. Write the different phases of a compiler in detail.
- 4. What is Syntax directed definition. Explain top-down and bottomup translation in detail.

Section - B

(Short Answer Type Questions)

- Note : Section 'B' contains eight (08) short-answer-type questions of five (05) marks each. Learners are required to answer any four (04) questions only. (4×5=20)
- 1. Differentiate between a Compiler and an Interpreter.
- 2. What do you understand by Static and Dynamic linking.
- 3. Discuss the role of Parser.
- 4. What are tokens ? Discuss significance of tokens.
- 5. Discuss Lexical analyzer generator (LEX).
- 6. How System software is different from Application software.
- 7. Explain runtime storage management.
- 8. Discuss code optimization techniques.

Section - C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective-type questions of one (01) mark each. All the questions of this section are compulsory. (10×1=10)

- 1. Which of the following loader is executed when a system is first turned on or restarted
 - (A) Boot loader (B) Compile and Go loader
 - (C) Bootstrap loader (D) Relating loader

- 2. Process is
 - (A) program in High level language kept on disk
 - (B) contents of main memory
 - (C) a program in execution
 - (D) a job in secondary memory
- 3. Translator for low level programming language were termed as
 - (A) Assembler(B) Compiler(C) Linker(D) Loader
- 4. Load address for the first word of the program is called
 - (A) Linker address origin (B) Load address origin
 - (C) Phase library (D) Absolute library
- 5. Which of the following is not a fundamental process state
 - (A) Ready(B) Terminated(C) Executing(D) Blocked
- 6. The translator which perform macro expansion is called a
 - (A) Macro processor (B) Macro pre-processor
 - (C) Micro pre-processor (D) Assembler
- 7. The translator which perform macro expension is called a
 - (A) Macro processor (B) Macro pre-processor
 - (C) Micro pre-processor (D) Assembler
- 8. Shell is the exclusive feature of
 - (A) UNIX(B) DOS(C) System Software(D) Application Software

- 9. A program in execution is called
 - (A) Process (B) Instruction
 - (C) Procedure (D) Function
- 10. An assembler is
 - (A) Programming language dependent.
 - (B) Syntax dependent.
 - (C) Machine dependent.
 - (D) Data dependent.