MCA-15/M.Sc.(IT)-15

System Softwere

Master of Computer Application/Master of Science in Information Technology/ (MCA/ M.Sc.IT-11/12/16/17)

Fouth Semester Examination, 2019 (June)

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

Note : This paper is of Eighty (80) 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 Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

(2×19=38)

1. What is assembler ? What are the differences between compiler and assembler ? Explain.

2. What is system softwere? Classify various system softweres.

3. What is systax analysis? What is the role of perser in syntax analysis? Explain.

4. What do you understand by syntax directed translation? Explain the difference between top-down and bottom-up translations.

SECTION–B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer any four (04) questions only.   (4×8=32)

1. What is 'Chomshy Hieracrhy'? Explain with suitable diagram and algorithms.

2. What do you understand by an imperative sentence in assembly language? Explain.

3. What is the diffrerence between 'Macros' and 'Macro Processer'? Explain by giving suitble examples.

4. What is the difference between 'LR parsers' and Parser Generator (YACC)?

5. What do you understand by 'Shift reduce Perser'? Also explain 'Operator Precedence Persing'.

6. What are the 'basic code optimization terhniques'? Explain.

7. What are the differences between 'Window DLLs and OLEs?

8. What are the basic concepts of Linkers? What is the difference between 'Static' and 'Dynamic' linking?

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. The translator used by second generation languages is?

(A) Assembler

(B) Intrepreter

(C) Compiler

(D) Linker.

2. Compiler can check-

   (A) Syntax Error

   (B) Logical Error

   (C) Both Logical and Systax Error

   (D) None of these.

3. A computer programme that converts the whole programme into machine languagee at a single time is called

   (A) Compiler

   (B) Translator

   (C) Interpreter

   (D) All of the above.

4. The table created by lexical analysis to describe all literals used in the source program is

   (A) Reductions

   (B) Literal table

   (C) Identiler table

   (D) Terminal table.

5. The symbol table implemention in based on the propery of locailty of reference is-

(A) hash table

(B) linear list

(C) search tree

(D) self-organization list.

6. In a single pass essemblr,most of the forward references can be avoided by putting the restriction-

(A) that the data segment must be defined asfter the code segment

(B) on the number of strings/lifereacts

(C) on unconditional rump

(D) None of these.

7. Assembly code data base is associated with-

(A) a permanent table of decision rules in the form of patterns for matching with the uniform symbol table to discover syntactic structure.

(B) assembly language version of the program which is created by the code.

(C) Both (A) and (B)

(D) a permanent table which lists all key words and special symbols of the language in symbolic form.

8. In which way a macro processor for assembly language can be implemented ?

(a) Processor incorporated into pass 1 of a standard two pass assembler

(b) Independent one-pass processor

(c) Independent two-pass processor

(d) All of these.

9. Resolution of externally defined symbols is performed by

(a) Linker

(b) Loader

(c) Compiler

(d) Interpreter.

10. When a computer is first turned on or resrarted, a special type of absolute loader is executed called

   (a) Boot loader

   (b) Relating loader

   (c) Boot strap loader

   (d) "Compile and GO" loader.

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