Roll No. ....

Total No. of Questions : 13]   [Total No. of Pages : 02

Paper ID [A0222]

(Please fill this Paper ID in OMR Sheet)

BCA (502) (S05) (O) (LE) (Sem. - 5th)

SYSTEM SOFTWARE

Time : 03 Hours   Maximum Marks : 75

Instruction to Candidates:

1) Section - A is **Compulsory**.

2) Attempt any **Nine** questions from Section - B.

Section - A

Q1)   (15 × 2 = 30)

   a) Define system software.

   b) What is an interpreter?

   c) What are positional parameters? How do they differ from keyword parameters?

   d) Define assembler.

   e) List all the steps for conversion of a program from high level to machine language.

   f) What is a bootstrap loader?

   g) Why macro-processor is often called macro-preprocessor?

   h) What is relocation? List various types of relocation techniques.

   i) Define Data Base Management System (DBMS).

   j) What is a symbol table? How is it useful?

   k) How are macros defined?

   l) What is code optimization phase in compilation?

   m) What is dynamic linking?

   n) What is base relative addressing?

   o) What is a parse tree?

A-78   *P.T.O.*

Section - B

(9 × 5 = 45)

Q2) Compare single-pass assembler with two-pass assembler.

Q3) Discuss the evolution and importance of System Software with relevant examples.

Q4) What is an operating system? What are the various functions performed by an operating system.

Q5) How memory is optimized in a compiler?

Q6) What is the need for concatenation of macro parameters? Explain how it is done.

Q7) With a neat diagram, explain the structure of an editor.

Q8) How lexical and syntax analysis is performed in compilation process?

Q9) Explain direct-linking loaders.

Q10) With the help of suitable diagram, discuss the structure of DBMS.

Q11) Explain recursive macro expansion with suitable example.

Q12) What is conditional macro expansion?

Q13) Explain the different machine independent loader features in detail.

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