

IV Semester B.C.A. Examination, May/June 2010
(Y2K7 Scheme)
COMPUTER SCIENCE
BCA 403 : System Programming

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all Sections.

SECTION - A

Answer any eight of the following.

(3×8=24)

1. Differentiate between system software and application software.
2. Explain DS and DC statements in assembly language.
3. Briefly explain formal system.
4. Write the basic instruction format.
5. Explain the format of pseudo-op table.
6. Define Loader.
7. Define Binders.
8. Write the format of Literal table.
9. Define Compiler.
10. What is a parse tree ? Explain with a neat diagram.

P.T.O.



SECTION - B

Answer any four of the following.

11. a) Explain the Macro flowchart for ADD instruction with neat diagram. 7
b) Explain the concept of address modification using instruction as data. 7
12. a) Explain the data structures used in single pass assembler. 7
b) Give a flowchart of pass I of a two pass assembler. 7
13. a) Write an algorithm or flowchart for one pass macroprocessor. 7
b) Explain Advanced Macro facilities. 7
14. Explain the design of direct link loader with neat diagram. 14
15. Explain in brief the general model of compiler. 14
16. Write short notes on : (5+5+4)
a) Machine-op-table.
b) Machine independent code generation.
c) Overlays.
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