



MS – 524

**IV Semester B.C.A. Degree Examination, May/June 2013
(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.

(8×3=24)

1. What is a system software ? List the machine dependent aspects of system software.
2. List the advantages of assembly language.
3. Differentiate between system software and application software.
4. Define Loader.
5. Explain MDT and MNT.
6. Explain uniform symbol Table.
7. Explain the use of EXTRN and ENTRY statements.
8. Explain assembler directives.
a) USING b) BALR c) START
9. Explain the intermediate forms generated by compiler for arithmetic statement.
10. Define Binder.

SECTION – B

Answer **any four** of the following.

(4×14=56)

11. a) Explain the various register used in IBM 360/370 machine. **8**
- b) Write a note on programming system components. **6**

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| 12. a) Write a note on macro expansion. | 8 |
| b) Explain macro calls within macros. | 6 |
| 13. a) Explain the structure of compiler with a neat diagram. | 8 |
| b) Explain machine dependent optimization phase of compiler. | 6 |
| 14. a) Write algorithm or flowchart for pass – I of two pass assembler. | 8 |
| b) Explain Linking and Relocation concepts. | 6 |
| 15. a) Explain the concepts of address modification using instruction as data. | 8 |
| b) Explain address calculation sorting technique used in table processing. | 6 |
| 16. Write short notes on | |
| a) Relocating Loader | 5 |
| b) Machine – op – table | 5 |
| c) Overlays | 4 |