Exam. Code : 206703
Subject Code : 4691

## M.Sc. Computer Science 3$^{rd}$ Semester
## SYSTEM SOFTWARE
### Paper—MCS-302

Time Allowed—Three Hours]    [Maximum Marks—100

**Note :**—Attempt **FIVE** questions, selecting at least **ONE** question from each part. The **fifth** question may be attempted from any part.

### PART—A

1.  (a)  Discuss the evolution of system software.    10

    (b)  Design a comparison report between interpreters, compilers and assemblers.    10

2.  What is an assembler ? Discuss various phases of one pass assembler with the help of a block diagram.    20

### PART—B

3.  (a)  What is a Macro and its expansion ? Discuss with suitable examples.    10

    (b)  Distinguish between conditional macro expansion and recursive macro expansion with the help of a suitable code fragments.    10

4.  (a)  What is recursive micro expansion ? Explain macro expansion by taking suitable examples.    10

    (b)  Write a note on conditional MACRO.    10

## PART—C

5. Explain the various phases of compiler with help of a block diagram. 20

6. Write short notes on the following terms :

   (i) P code compiler

   (ii) Cross compiler

   (iii) Incremental compiler

   (iv) Parsing. 5×4=20

## PART—D

7. (a) Explain the salient features 'Loaders' in detail. 10

   (b) Explain 'Relocation' and 'Program Linking' in detail. 10

8. Write short notes on the following terms :

   (a) Text Editors

   (b) DBMS. 10×2=20