Exam. Code : 206703

Subject Code : 3679

M.Sc. Computer Science 3rd Semester

SYSTEM SOFTWARE

Paper : MCS-302

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— Attempt any **five** questions in all. All questions carry equal marks.

1. (a) What is Software ? When it is called system software ? Explain the components of system software in detail.   2+2+6

    (b) Write notes on Translators and Interpreters.   5+5

2. (a) Define assembler. How assembler process is carried-out ? Explain with example.   2+8

    (b) Explain the working of two pass assembler.   10

3. (a) What are macro parameters ? How are they defined and implemented ? Explain the concatenation operation of parameters with example.   2+2+6

    (b) Why macro expansion is required ? How conditional and recursive macro expansion is carried out ?   2+4+4

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4. (a) How logical analysis and Parsing is done by Compilers ? Explain. 5+5

   (b) Why storage management and optimization is important for compilation ? Explain. 10

5. (a) Write the salient features of Linkage editors in detail. 10

   (b) Define loader. Explain its basic functions with their importance. 10

6. (a) Draw comparison between program linking and dynamic linking. 10

   (b) What is the significance of bootstrap leader ? Explain its working in detail. 10

7. (a) Write the importance and working of Interactive debugging systems. 10

   (b) Write a note on DBMS. 10

8. Write detailed notes on :

   (a) Cross and P-Code compilers.

   (b) Text editors. 10×2