Roll No.

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, April / May 2014

COMPUTER SCIENCE AND ENGINEERING

Fifth Semester

R 2008

CS9303 SYSTEM SOFTWARE INTERNALS

Time: 3 Hours   Answer ALL Questions   Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. What are pseudo ops?

2. Give any 4 examples of Assembler directives.

3. What is a pass? Why is more than one pass required for an assembler?

4. Explain the directive associated with literals.

5. Name any 2 types of profiles.

6. Explain the functioning of compacting collectors.

7. Give an example of well defined interface and justify.

8. Give an example for system level and process level virtual machine.

9. Name the 3 data structures associated with macro processor.

10. What is a macro time variable? Explain.

Part – B (5 x 16 = 80 marks)

11. i Write SIC/XE program to compare 2 strings of bytes. (8)
    ii Explain any 2 addressing modes and explain how the target address can be computed in each case.(8)

12.   a.i.Describe the bootstrap loader.   (10)
        ii.   Describe the different contents of an object file. (6).

(OR)

        b.i.Discuss machine independent loader features.   (8)
            ii.   Explain how dynamic linking can be implemented? (8)

13.a.i. Illustrate keyword parameters with 2 examples. (8)
ii. How is concatenation of macro parameters done?   Give an example. Write the expanded version. (8)

(OR)

13.b. i. Write the algorithm for implementing one pass macro processor.
ii. Explain conditional macro expansion.

14.a. Explain the Java VM architecture.

(OR)

14.b Explain any 3 garbage collection approaches.

15.a. Write short note on grids.

(OR)

15.b. Write short note on profiling.