**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination - June 2011**

**Subject Title: SYSTEM SOFTWARE AND COMPILER Time: 3 hours**

**Subject Code: CA324 Maximum Marks: 100**

**Answer ALL questions (5 x 20 = 100 Marks)**

1. Briefly explain the architecture of CISC Machines.

(OR)

2. Compare the registers available in various machines.

3. With a neat flow chart/Algorithm explain the working of a two-pass assembler.

(OR)

4. a. Define Forward Reference. How is it handled in single pass assemblers? (10)

b. Briefly explain AIX Assemblers. (10)

5. a. List out the basic functions of a loader. (5)

b. What are the disadvantages of an absolute loader? (5)

c. Briefly explain SUN-OS link editors. (10)

(OR)

6. Explain the data structures and algorithms for linking loader.

7. **Compulsory**:

Explain the algorithms for one-pass macro processors.

8. With suitable example, explain code optimization.

(OR)

9. a. How translation and execution is carried out using a P-code compiler. (10)

b. Explain the construction of automatic compiler using a compiler-compiler. (10)