Code: CS22 **Subject: SYSTEM SOFTWARE**

ALCCS – OLD SCHEME

Time: 3 Hours **AUGUST 2012** Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE:
- **Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.**
- **Parts of a question should be answered at the same place.**

Q.1 a. Write a brief note on absolute loader and its functionality.

b. Discuss the merits of multipass assembler.

c. State differences between a linker and a loader.

d. Write short note on Code Optimization Techniques.

e. Explain incremental compilation.

f. State major functions of an editor.

g. How is a linkage editor used? Explain. **(7 × 4)**

Q.2 a. What is system software? Explain the components of system software. **(9)**

b. Define application software. Discuss differences between system software and application software. **(9)**

Q.3 a. What is bootstrap loader? Explain bootstrap loader process. **(9)**

b. Write short note on Macro Processing within Language Translators. **(9)**

Q.4 a. Describe the structure of a single pass assembler. **(9)**

b. What is conditional assembly? Explain with example. **(9)**

Q.5 a. What is compiler? Explain different phases of compilation. **(9)**

b. Use suitable example to explain the concept of Parsing and left recursive in compiler. **(9)**

Q.6 a. Explain interactive debugging system. State its functions and capabilities.   **(9)**

b. Define interpreter. Discuss differences between compiler and interpreter.   **(9)**

Q.7 a. Explain the functions of program linking in machine dependent loader.   **(9)**

b. What are editors? Discuss various categories of editors along with their functions. **(9)**