



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)
उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

BCA 3RD YEAR 6TH SEMESTER ASSIGNMENT

Last Date of Submission: 15- May-2014

Course Title: System Programming

Course Code: BCA-20

Year: 2013-14

Maximum Marks: 40 Marks

Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

1. Describe the concept of subroutine linkages for loader.
2. Develop algorithm for lexical analysis phase of compiler.
3. Enlist and explain the data structures used in pass 1 and pass 2 of direct linking loader.
4. Explain with example the regular expressions.
5. State some examples of Assembly level language.
6. What are expression trees? How you will use them in compiler designing.
7. What is bottom up parsing? Explain with a suitable example.
8. State some basic tasks a macro instruction processor performs.

Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answers 02 questions only.

1. Draw and explain the structure of a compiler.
2. Define the terms with reference to operating system. i) Paging ii) virtual memory.
3. Draw the flowchart of pass 1 for direct linking loader and write about LALR parsing.
4. Define the following terms:
 - i. Binder
 - ii. dynamic loading
 - iii. linking editor
 - iv. overlay