

## ESC101 : Fundamental of Computing

Lab 10 for 2nd November 2008 (sections B1 and B2)

Maximum Marks = 10

1. (marks = 4)

Write a program which prints all strings of length  $3n$  such that it consists of characters  $a, b$  only and the number of  $a$ 's in the string is twice the number of  $b$ 's. the value of integer  $n$  is to be read from command line.

2. (marks = 6)

Design a program which reads a string  $S$  and an integer  $L$  from command line and prints all permutations of length  $L$  using characters from the string. Please note that, there may be repetition of characters in the string. For example, if the string  $S$  is  $abac$  and  $L = 3$ , then the output should be

```
aab
aba
aac
aca
abc
acb
baa
bac
bca
caa
cba
cab
```