**GANPAT UNIVERSITY**

**U.V.PATEL COLLEGE OF ENGINEERING & TECHNOLOGY**

**Department of Computer Science and Engineering**

**B.Tech 7thSemester Subject: Compiler Design**

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**Practical 4:**

**Left factoring**

n='A->abcA|abc|ab|d|e';

print(n);

i=n.index('-');

base=n[0:i];

print(base);

m=n[i+2:];

k=m.split('|');

print('k=',k);

ma=0;

ind=0;

for i in range(0,len(k)):

if(ma<len(k[i])):

ma=len(k[i]);

ind=i;

print(ma)

print('index',ind);

j=0;

alpha='';

beta='';

p=k[ind];

print(p);

a=[];

for i in range(0,len(k)):

if(ind==i):

print('repeated');

else:

print('l',len(p),'l2',len(k[i]));

j=0;

alpha='';

while(j<ma and j<len(k[i])):

if(p[j]==k[i][j]):

alpha=alpha+p[j];

print('if=',alpha);

j=j+1;

else:

beta=beta+'|'+k[i][j:];

print('break while',beta);

break;

if(alpha!=''):

a.append(alpha);

print(a);

m=0;

alpha=min(a[0:]);

print(alpha);

le=len(alpha);

print(le);

print(base,'->',alpha,base,'\'',beta);

z='';

for c in k:

if (alpha in c):

z=z+'|'+c[2:];

if(c[2:]==''):

z=z+'|'+'NULL';

print(base,'\'',z)



