**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 5 First set**

# first of

n="S->AB"

m="A->a|^"

o="B->b|^"

print(n)

print(m)

base1=n.split('->')

print(base1)

base2=m.split('->')

print(base2)

base3=o.split('->')

print(base3)

sub1=base1[1]

sub2=base2[1]

sub3=base3[1]

print('sub')

print(sub1)

print(sub2)

print(sub3)

print('Base')

b1=base1[0]

b2=base2[0]

b3=base3[0]

print(b1)

print(b2)

print(b3)

F1=sub1.split('|')

print('F1',F1)

F2=sub2.split('|')

print('F2',F2)

F3=sub3.split('|')

print('F3',F3)

First1=[]

First2=[]

First3=[]

print(First1)

for i in range(0,len(F1)):

if (F1[i][0] not in First1 and F1[i][0]!=b1):

print('----',F1[i][0])

First1.append(F1[i][0])

for i in range(0,len(F2)):

if (F2[i][0] not in First2 and F2[i][0]!=b2):

First2.append(F2[i][0])

print(F2[i][0])

for i in range(0,len(F3)):

if (F3[i][0] not in First3 and F3[i][0]!=b3):

First3.append(F3[i][0])

print(F3[i][0])

print('first[]')

print(First1)

print(First2)

print(First3)

for i in First1:

if(i==b2):

print(i)

for j in First2:

if (j not in First1):

First1.append(j)

if(i==b3):

print(i)

for j in First3:

if (j not in First1):

First1.append(j)

for i in First2:

if(i==b1):

print(i)

for j in First1:

if (j not in First2):

First2.append(j)

if(i==b3):

print(i)

for j in First3:

if (j not in First2):

First2.append(j)

for i in First3:

if(i==b1):

print(i)

for j in First1:

if (j not in First3):

First3.append(j)

if(i==b2):

print(i)

for j in First2:

if (j not in First3):

First3.append(j)

print('First('+b1+')= ',First1)

print('First('+b2+')= ',First2)

print('First('+b2+')= ',First3)

