Exercise 1:

Program:(a)

a=[(1,2,3),(4,5),(6,8,9)]

b=[]

for i in a:

sum=0

for j in i:

sum+=j

b.append(sum)

print(b)

output:

[6, 9, 23]

Program:(b)

d={'A':['a','b','c'],'B':['d','e']}

for i in d['A']:

for j in d['B']:

print(i+j)

output:

ad

ae

bd

be

cd

ce

program: (c)

l=[1,2,3]

print("all possible combinations")

for i in l:

for j in l:

print(f"({i},{j}")

output:

all possible combinations

(1,1)

(1,2)

(1,3)

(2,1)

(2,2)

(2,3)

(3,1)

(3,2)

(3,3)