**Program;**

list1=['python','english','physics']

print(list1.append('maths'),list1)

list1.insert(0,'chemisty')

list2=[]

list2.extend(list1)

print(list2)

list2[3]='c++'

print(list2)

list3=[]

list3.extend(list2)

print(list3)

print(list3[0])

print(list3[:])

print(list3[::-1])

print(list3[0:5])

print(list3.remove('c++'),list3)

list3.pop(3)

print(list3)

print('python' in list3)

print('bow' in list3)

print(len(list3))

print(list3.count('python'))

print(list3.sort(),list3)

del(list3)

print(list3)

**output;**

None ['python', 'english', 'physics', 'maths']

['chemisty', 'python', 'english', 'physics', 'maths']

['chemisty', 'python', 'english', 'c++', 'maths']

['chemisty', 'python', 'english', 'c++', 'maths']

chemisty

['chemisty', 'python', 'english', 'c++', 'maths']

['maths', 'c++', 'english', 'python', 'chemisty']

['chemisty', 'python', 'english', 'c++', 'maths']

None ['chemisty', 'python', 'english', 'maths']

['chemisty', 'python', 'english']

True

False

3

1

None ['chemisty', 'english', 'python']

Traceback (most recent call last):

File "C:/Users/test02/arunex07.py", line 25, in <module>

print(list3)

NameError: name 'list3' is not defined

**Program;**

tup1=('rolls rolyce','smoothing',2022)

tup2='model car','secification','year'

print(tup1)

model,ctype,year=tup1

tup1=model,ctype,year

print(tup1)

tup1=tup1+tup2

print(tup1)

print(tup2\*2)

print(tup1[0])

print(tup1[-1])

for i in tup1:

print(i,end='')

print(tup1[:3])

print(tup1[2])

print(tup1[::-1])

print(len(tup1))

print(tuple(tup1[0]))

print(type(tup1))

del tup1

print(tup1)

**output;**

('rolls rolyce', 'smoothing', 2022)

('rolls rolyce', 'smoothing', 2022)

('rolls rolyce', 'smoothing', 2022, 'model car', 'secification', 'year')

('model car', 'secification', 'year', 'model car', 'secification', 'year')

rolls rolyce

year

rolls rolycesmoothing2022model carsecificationyear('rolls rolyce', 'smoothing', 2022)

2022

('year', 'secification', 'model car', 2022, 'smoothing', 'rolls rolyce')

6

('r', 'o', 'l', 'l', 's', ' ', 'r', 'o', 'l', 'y', 'c', 'e')

<class 'tuple'>

Traceback (most recent call last):

File "C:/Users/test02/arunex07.py", line 21, in <module>

print(tup1)

NameError: name 'tup1' is not defined

**Program;**

list1=[]

for i in range(5):

num=int(input('enter a number;'))

list1.extend([num])

set1=set(list1)

print('duplicate value are remove',tuple(set1))

print('given value',tuple(list1))

**output;**

enter a number;4

enter a number;5

enter a number;4

enter a number;5

enter a number;6

duplicate value are remove (4, 5, 6)

given value (4, 5, 4, 5, 6)

**program;**

dic1={'name':'arun','class':'cse','clg':'velammal'}

dic1['roll\_no']='22csea34'

print(dic1)

print(dic1.get('name'))

print(dic1.values())

print(dic1.keys())

dic1.pop('class')

print(dic1)

dic1.clear()

print(dic1)

**output;**

{'name': 'arun', 'clg': 'velammal', 'class': 'cse', 'roll\_no': '22csea34'}

arun

dict\_values(['arun', 'velammal', 'cse', '22csea34'])

dict\_keys(['name', 'clg', 'class', 'roll\_no'])

{'name': 'arun', 'clg': 'velammal', 'roll\_no': '22csea34'}

{}