Practical-5: DICTIONARY

1) **Create and print a dictionary that contains keys a,b,c,d with their values 1,2,3 and 4 respectively using curly bracket syntax and 'dict' in built function**

Code:

```
print("21012021003_AMIT GOSWAMI")
dict1={1:'a',2:'b',3:'c',4:'d'}
dict2=dict([(1,'a'),(2,'b'),(3,'c'),(4,'d')])
print(dict1)
print(dict2)
```

Output:

```
21012021003_AMIT GOSWAMI
{1: 'a', 2: 'b', 3: 'c', 4: 'd'}
{1: 'a', 2: 'b', 3: 'c', 4: 'd'}
```

2) **Using above created dictionary perform following operations**

1) Write a code to print out the

Code:

```
print("21012021003_AMIT GOSWAMI")
dict1={'a':1,'b':2,'c':3,'d':4}
print(dict1['a'],dict1['c'],dict1['d'])
```

Output:

```
21012021003_AMIT GOSWAMI
1 3 4
```

2)**Calculate the sum of the value of a,b,c,d and print it.**

Code:

```
print("21012021003_AMIT GOSWAMI")
dict1={'a':1,'b':2,'c':3,'d':4}
l=sum([i for i in dict1.values()])
print(l)
```

Output:

```
21012021003_AMIT GOSWAMI
10
```

3) Add a new key, value pair (e,5) to the dictionary and print dictionary.

Code

```
print("21012021003_AMIT GOSWAMI")
dict1={'a':1,'b':2,'c':3,'d':4}
dict1.update([('e',5)])
print(dict1)
```

Output:

```
21012021003_AMIT GOSWAMI
{'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5}
```

3) Filter the dictionary by removing all items with a value greater than 2. d={“a”:1, “b”:2, “c”:3, “d”:4, “d”:5}

Code:

```
print("21012021003_AMIT GOSWAMI")
dict1={'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5}
for i in list(dict1.keys()):
   if(dict1[i]>2):
      dict1.pop(i)
print(dict1)
```

OUTPUT:

```
21012021003_AMIT GOSWAMI
{'a': 1, 'b': 2}
```

4) . Print the names which contain the character 'a' from the dictionary containing 2 lists of male and female students given below. {"male": ["Tom", "Charlie", "Harry", "Frank"], "female":["Sarah", "Huda", "Samantha", "Emily", "Elizabeth"] }

Code:

```
print("21012021003_AMIT GOSWAMI")
d={"male": ["Tom", "Charlie", "Harry", "Frank"],"female":["Sarah",
"Huda", "Samantha", "Emily", "Elizabeth"]}
for i in d.keys():
   for j in d[i]:
      if('a'in j):
         print(j)
```

Output:

```
21012021003_AMIT GOSWAMI
Charlie
Harry
Frank
Sarah
Huda
Samantha
Elizabeth
```

5) You have 4 films in the dictionary with the age and number of seats available as indicated below. Write a programme to ask for a film and check for the person that he is eligible to watch movie, also check ticket availability and movie availability in the cinema. "War": [3,5], "Bourne": [18,5], "Gully boy": [15,5], "Uri":[12, 5]

Code:

```
print("21012021003_AMIT GOSWAMI")
d={"War": [3,5],"Bourne": [18,5],"Gully boy": [15,5], "Uri":[12, 5]}
m=input("Enter movie name : ")

if m in d.keys():
  print("movie is available")
  a=int(input("Enter your age :"))
  if(a>=d[m][0]):
    print("yes u are eligible for movie.")
    n=int(input("Enter no of tickets : "))
    if(n<=d[m][1]):
      print("Here are your tickets.")
    else:
      print("Tickets are not available.")
  else:
    print("You r not eligible for movie.")
else:
  print("movie is not available")
```

Output:

```
21012021003_AMIT GOSWAMI
Enter movie name : War
movie is available
Enter your age :19
yes u are eligible for movie.
Enter no of tickets : 2
Here are your tickets.
```