Question 1: **Consider a file with the following matrix X:**

[1 2

3 4]

Perform following operations-

i. **read data from an excel/csv file**
ii. **compute Y = 3∗X now with NumPy and**
iii. **store the output in a new excel file**

Code:

(i)

#importing pandas module

```
import pandas as pd
```

#reading data from excel file

```
X=pd.read_excel('C:\Users\IBM_ADMIN\Desktop\input.xlsx')

print(X)
```

(ii)

#importing numpy module

```
import numpy as np

mulvalue = np.array(3)

Y = mulvalue*X

print(Y)
```

(iii)

```
df = pd.dataframe(Y)

writer = pd.Excelwriter('new_file.xlsx')

df.to_excel(writer)

writer.save()
```

Question 2: Write code for extracting news of a url (http://fox13now.com/2013/12/30/new-year-new-laws-obamacare-pot-guns-and-drones/) and summarize the news

Code:

```
#importing urllib module, bs4

import urllib.request

from bs4 import BeautifulSoup

my_url = "http://fox13now.com/2013/12/30/new-year-new-laws-obamacare-pot-guns-and-drones"

# open a connection to a url

weburl = urllib.request.urlopen(my_url)

#status code

print("result code: " + str(weburl.getcode()))
```

#reading html data

data = webrul.read()

print(data)

soup = BeautifulSoup(data, 'html.parser')

#title of the page

title = soup.title

print(title)

#to extract html tags with in the web page

print(soup.find_all('a'))

Grabs some part of text data for validating by inspecting webpage

content = soup.find('div', attrs ={'class' : 'p402_premium'})

print(content)

3) **Question 3:** Create a Django program to extract tweets for last month for handle '@BCCI' (create user id /Token etc., as required)

```
import json
import tweepy
import csv

# creating a dictionary to store twitter credentials

twitter_cred = dict()

#Inputting own consumer_key, consumer_secret, access_key and
access_secret

twitter_cred['CONSUMER_KEY'] = ' XhNoxhkmvm281LtvCNC8X2OmV'

twitter_cred['CONSUMER_SECRET']'uIjJaxe1UabXqx4l2aL5ocURT24cbcoQhxWUYO
HbjvWwcTu9WG'

twitter_cred['ACCESS_KEY'] = ' 1075754716687040512-
WIgyPOwthfPDI4tfx1Hcy4eqHI3YpP'

twitter_cred['ACCESS_SECRET'] =
'1up2kr158GwhfkVhLJE84PHhNkU3LwS9rduxLziXZ21Aq'

# Saving the information to a json

with open('twitter_credentials.json', 'w') as secret_info:
    json.dump(twitter_cred, secret_info, indent=4,
sort_keys=True)


# load Twitter API credentials

with open('twitter_credentials.json') as cred_data:
    info = json.load(cred_data)

    consumer_key = info['CONSUMER_KEY']
    consumer_secret = info['CONSUMER_SECRET']
    access_key = info['ACCESS_KEY']
    access_secret = info['ACCESS_SECRET']
```

```
def get_all_tweets(user name):


    # Authorization

    auth = tweepy.OAuthHandler(consumer_key, consumer_secret)
    auth.set_access_token(access_key, access_secret)
    api = tweepy.API(auth)

    # initialization of a list to hold all Tweets

    all_the_tweets = []


    new_tweets = api.user_timeline(username, count=300)

    # saving the most recent tweets

    all_the_tweets.extend(new_tweets)


    # transforming tweets into a array that will be used to include in
csv

    outtweets = [[tweet.id_str, tweet.created_at,
                  tweet.text.encode('utf-8')] for tweet in
all_the_tweets]

    # writing to the csv file

    with open(username + '_tweets.csv', 'w', encoding='utf8') as
f:
        writer = csv.writer(f)
        writer.writerow(['id', 'created_at', 'text'])
        writer.writerows(outtweets)


if __name__ == '__main__':

    # call the function with twitter account name of an user whose
tweets required - bcci

 get_all_tweets(bcci)
```