Python programming basic assignment 14:

Q1) class divisor:

def \_\_init\_\_(self, n):

self.n = n

def seven\_divisor(self):

for i in range(0,self.n):

if i%7 == 0:

yield i

a = int(input("enter the maximum number for range "))

b = divisor(a)

b.seven\_divisor()

for i in b.seven\_divisor():

print(i)

Q2) print("enter words ")

string = input()

list10 = []

list10 = string.split(' ')

list10.sort()

dict1 = {}

for i in list10:

b = list10.count(i)

if i not in dict1.keys():

dict1[i] = b

print(dict1)

Q3) class Person(name, gender):

def \_\_init\_\_(self, name, gender):

self.name = name

self.gender = gender

@classmethod

def getGender(cls, name, gender):

return cls(name, gender)

class Male(Person):

def getGender(cls):

return cls("male")

class Female(Person):

def getGender(cls):

return cls("female")

person1 = Person('vinay', 'male')

print(person1.getGender('vinay', ‘male'))

Q4) subjects = ["I", "You"]

verbs = ["Play", "Love"]

objects = ["Hockey","Football"]

list11 = []

for i in range(len(subjects)):

for j in range(len(verbs)):

for k in range(len(objects)):

output = "%s %s %s." %

(subjects[i], verbs[j], objects[k])

print(output)

Q5) import zlib

a = "hello world!hello world!hello world!hello world!"

b = zlib.compress(a.encode())

print("Compressed string: ", b)

c = zlib.decompress(b).decode()

print("Decompressed string: ", c)

Q6) list12 = [1,2,3,4,5,6,7,8,9,10]

def binary\_search(sortedlist, n):

low = 0

high = len(sortedlist) - 1

mid = 0

while low <= high:

mid = (high + low) // 2

if sortedlist[mid] < n:

low = mid + 1

elif sortedlist[mid] > n:

high = mid - 1

else:

return mid

return -1

index = binary\_search(list12, 8)

print(index)