**Bài 1**

**1. Write a Python program to print the following string in a specific format (see the output).**

*Sample String : "Twinkle, twinkle, little star, How I wonder what you are! Up above the world so high, Like a diamond in the sky. Twinkle, twinkle, little star, How I wonder what you are"*

*Output:*

*Twinkle, twinkle, little star,*

*How I wonder what you are!*

*Up above the world so high,*

*Like a diamond in the sky.*

*Twinkle, twinkle, little star,*

*How I wonder what you are*

**Code:**

print("Twinkle, twinkle, little star, \n\tHow I wonder what you are! \n\t\tUp above the world so high, \n\t\tLike a diamond in the sky. \nTwinkle, twinkle, little star, \n\tHow I wonder what you are!")

**2. Write a Python program to get the Python version you are using.**

**Code:**

import system

print("Python version:")

print(system.version)

print("Version info:")

print(system.version\_info)

**3. Write a Python program to display the current date and time.**

*Sample Output :*

*Current date and time :*

*2014-07-05 14:34:14*

**Code:**

import datetime

now = datetime.datetime.now()

print("Current date and time:")

print(now.strftime("%Y-%m-%d %H:%M:%S"))

**4. Write a Python program which accepts the radius of a circle from the user and compute the area.**

*Sample Output :*

*r = 1.1*

*Area = 3.8013271108436504*

**Code:**

from math import pi

bk = float(input("Nhap ban kinh hinh tron: "))

print("Dien tich hinh tron co ban kinh " + str(bk) + " la: " + str(pi\*bk\*bk))

**5. Write a Python program which accepts the user's first and last name and print them in reverse order with a space between them.**

**Code:**

ten = input("Nhap ten nguoi dung: ")

ho = input("Nhap ho nguoi dung: ")

print("Ho va ten nguoi dung: " + ho + " " + ten)

**6. Write a Python program which accepts a sequence of comma-separated numbers from user and generate a list and a tuple with those numbers.**

*Sample data : 3, 5, 7, 23*

*Output :*

*List : ['3', ' 5', ' 7', ' 23']*

*Tuple : ('3', ' 5', ' 7', ' 23')*

**Code:**

values = input("Nhap cac so cach nhau boi dau ,: ")

list = values.split(',')

tuple = tuple(list)

print("List: " + str(list))

print("Tuple: " + str(tuple))

**7. Write a Python program to accept a filename from the user and print the extension of that.**

*Sample filename : abc.java*

*Output : java*

**Code:**

filename = input("Nhap ten tep: ")

extention = filename.split('.')

print("Phan mo rong cua tep: " + repr(extention[-1]))

**8. Write a Python program to display the first and last colors from the following list.**

*color\_list = ["Red","Green","White" ,"Black"]*

**Code:**

color\_list = ["Red","Green","Blue","Black","Purple","Orange"]

print("%s ,%s" %(color\_list[0], color\_list[-1]))

**9. Write a Python program to display the examination schedule. (extract the date from exam\_st\_date).**

*exam\_st\_date = (11, 12, 2014)*

*Sample Output : The examination will start from : 11 / 12 / 2014*

**Code:**

exam\_st\_date = (12,12,2002)

print("Lich kiem tra: %d/%d/%d" %(exam\_st\_date[0],exam\_st\_date[1],exam\_st\_date[2]))

**10. Write a Python program that accepts an integer (n) and computes the value of n+nn+nnn.**

*Sample value of n is 5*

*Expected Result : 615*

**Code:**

n=int(input("Nhap so nguyen n: "))

n1=int("%s" %(n))

n2=int("%s%s"%(n,n))

n3=int("%s%s%s" %(n,n,n))

print("Tong = " + str(n1+n2+n3))

**11. Write a Python program to print the documents (syntax, description etc.) of Python built-in function(s).**

*Sample function : abs()*

*Expected Result :*

*abs(number) -> number*

*Return the absolute value of the argument.*

**Code:**

print(abs(-5))

print(abs.\_\_doc\_\_)

**12. Write a Python program to print the calendar of a given month and year.**

**Note : Use 'calendar' module.**

**Code:**

import calendar

thang = int(input("Nhap thang: "))

nam = int(input("Nhap nam: "))

print(calendar.month(nam,thang))

**13. Write a Python program to print the following 'here document'.**

*Sample string :*

*a string that you "don't" have to escape*

*This*

*is a ....... multi-line*

*heredoc string --------> example*

**Code:**

print("""a string that you "don't" have to escape

This

is a ....... multi-line

heredoc string --------> example

""")

**14. Write a Python program to calculate number of days between two dates.**

*Sample dates : (2014, 7, 2), (2014, 7, 11)*

*Expected output : 9 days*

**Code:**

from datetime import date

d1 = date(2014,7,2)

d2 = date(2014,7,11)

delta = d2 - d1

print(delta.days)

**15. Write a Python program to get the volume of a sphere with radius 6.**

**Code:**

from math import pi

r = 6

V = (4/3)\* pi \* r\*\*3

print("The tich khoi cau = " + str(V))

**16. Write a Python program to get the difference between a given number and 17, if the number is greater than 17 return double the absolute difference.**

**Code:**

def difference(n):

if n <= 17:

return 17-n

else:

return (n-17)\*2

print(difference(5))

print(difference(36))

**17. Write a Python program to test whether a number is within 100 of 1000 or 2000.**

**Code:**

def within\_hundred(n):

return ((abs(1000 - n) <= 100) or (abs(2000 - n) <= 100))

print(within\_hundred(900))

print(within\_hundred(10000))

**18. Write a Python program to calculate the sum of three given numbers, if the values are equal then return three times of their sum.**

**Code:**

def sum\_three(x,y,z):

sum = x + y + z

if(x==y==z):

sum = sum\*3

return sum

print(sum\_three(4,25,36))

print(sum\_three(25,25,25))

**19. Write a Python program to get a new string from a given string where "Is" has been added to the front. If the given string already begins with "Is" then return the string unchanged.**

**Code:**

def new\_string(str):

if len(str) >= 2 and str[:2]=="Is":

return str

return "Is" + str

print(new\_string("Array"))

print(new\_string("IsArray"))

**20. Write a Python program to get a string which is n (non-negative integer) copies of a given string.**

**Code:**

def copy\_string(str, n):

result = ""

for i in range(n):

result = result + str

return result

print(copy\_string("hello",2))

**21. Write a Python program to find whether a given number (accept from the user) is even or odd, print out an appropriate message to the user.**

**Code:**

n = int(input("Nhap so: "))

mod = n%2

if mod >0:

print("Day la so le")

else:

print("Day la so chan")

**22. Write a Python program to count the number 4 in a given list.**

**Code:**

def count\_4(nums):

count=0

for num in nums:

if num == 4:

count+=1

return count

print(count\_4([4,1,4,6,4]))

**23. Write a Python program to get the n (non-negative integer) copies of the first 2 characters of a given string. Return the n copies of the whole string if the length is less than 2.  
Code:**

def copy\_substring(str,n):

dodai = 2

if dodai > len(str):

dodai = len(str)

substr = str[:dodai]

result = ""

for i in range(n):

result = result + substr

return result

print(copy\_substring("123",2))

**24. Write a Python program to test whether a passed letter is a vowel or not.**

**Code:**

def find\_vowel(char):

vowel = "xinchao"

return char in vowel

print(find\_vowel('a'))

print(find\_vowel('b'))

**25. Write a Python program to check whether a specified value is contained in a group of values**

**Code:**

def find\_value(num):

group = [1,2,3,4]

return num in group

print(find\_value(2))

print(find\_value(5))