CODE / COURSE	**DFN40323 PROGRAMMING ESSENTIALS IN PYTHON**	**PRACTICAL TASK**	**3**
PROGRAM / CLASS	**DDT4**	**DURATION**	**3 HOURS**
STUDENT'S NAME	**1) TIVIYAEN ELANGO** **2) MUHAMMAD AFIQ MUHAIMIN BIN MOHD ZAINI**	**CLO 1**	**P3**
REG. NO.	**1) 32DDT20F2015** **2) 32DDT20F2029**	**TOTAL MARKS**	**/75**
LECTURER'S NAME	**SHARIZAN BINTI ABDUL JAMIL**		

Learning Outcome:

By the end of this practical, student will able to:

Construct a software application using the Python programming language (CLO1, P3, PLO3).

Instructions:

Answer ALL the questions given. Students need to discuss in groups of two (2) and upload the findings of the discussion in report and .py file through CIDOS. Students will be accessed according to the Rubric given.

Question 1

Refer to the coding in Figure 1,

```
#program to calculate temperature

def getInput():
    global celsius
    celsius = 36.7

getInput()

temp = celsius
print (temp)

if temp > 39.0:
    status="High Fever"
elif temp > 37.5:
    status="Fever"
elif temp > 36.3:
    status="Normal"
else:
    status="Hypothermia"
```

Figure 1

a. **Display the output.**
b. **Manipulate the coding in Figure 1 to:**
   i. **Get an input name and temperature (in Celsius) from a user.**
   ii. **Construct a function for temperature calculation and evaluation. Return the temperature status to the program.**
   iii. **Construct a function to display all the information (name, temperature, and temperature status).**

(25 marks)

SOURCE CODE & OUTPUT:

1(a).

```
36.7

***Repl Closed***
```

b(i).

```
#Program to calculate temperature
name = input("Enter Your Name:")
temp = float(input("Enter Your Temperature:"))

celsius = temp
print(temp)

if temp > 39.7:
    status="High Fever"
    print("status = High Fever")
elif temp > 37.7:
    status="Fever"
    print("status = Fever")
elif temp > 36.0:
    status="Normal"
    print("status = Normal")
else:
    status="Hypothermia"
    print("status = Hypothermia")
```

```
Enter Your Name:tiviyaen
Enter Your Temperature:36.5
36.5
status = Normal

***Repl Closed***
```

b(ii).

```
#Program to calculate temperature
def tempMethod():
    if temp > 39.0:
        status = "High Fever"
        print("Status = High Fever")
    elif temp > 37.5:
        status = "Fever"
        print("Status = Fever")
    elif temp > 36.3:
        status = "Normal"
        print("Status = Normal")
    else:
        status = "Hypothermia"
        print = ("Status = Hypothermia")
    return temp


name = input("Enter Your Name:")
celcius = float(input("Enter Your Temperature:"))

temp = celcius
print(tempMethod())
```

```
Enter Your Name:AFiq
Enter Your Temperature:40.0
Status = High Fever
40.0
```

```
def completeSet(name, celcius):

    if temp > 39.0:
        status = "High Fever"
        print("Status = High Fever")
    elif temp > 37.5:
        status = "Fever"
        print("Status = Fever")
    elif temp > 36.3:
        status = "Normal"
        print("Status = Normal")
    else:
        status = "Hypothermia"
        print("Status = Hypothermia")


name = input("Enter Your Name:")
temp = float(input("Enter Your Temperature:"))
completeSet(name, temp)
```

b(iii)

```
Enter Your Name:Afiq
Enter Your Temperature:19.2
Status = Hypothermia
```

Question 2

Write a program to accept a number from the user and store first 12 multiples of number in a tuple. (Choose other number from sample output given).

Sample Output:

```
Enter any numbers: 6
Tuple =  (6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72)

***Repl Closed***
```

Write a suitable python code based on the previous output and display each output based on the following task:

a. **Determine how many items a tuple has.**
b. **Print item in index 4.**
c. **Change the item in index 5 to 'Python".**

(25 marks)

SOURCE CODE & OUTPUT:

First Question

```
number = int(input("Enter a number: "))
tuple = ()
for i in range(1, 13):
    tuple += (number * i, )
print(tuple)
```

Output

```
Enter a number: 10
(10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120)
```

a.

```
#a. Determine how many items a tuple has.
print("Determine how many items a tuple has.")
print("There is", len(currentTuple), "items in the tuple")
print("\n")
```

```
Determine how many items a tuple has.
There is 12 items in the tuple
```

b.

```
#b. Print item in index 4.
print("Print item in index 4.")
print(currentTuple[4])
print("\n")
```

```
Print item in index 4.
300
```

c.

```
#c. Change the item in index 5 to “Python”.
print("Change the item in index 5 to “Python”.")
myList = list(currentTuple)
myList[5] = "Python"
currentTuple = tuple(myList)
print(currentTuple)
print("\n")
```

```
Change the item in index 5 to “Python”.
(60, 120, 180, 240, 300, 'Python', 420, 480, 540, 600, 660, 720)
```

Question 3

Given order dictionary as in Figure 2.

```
order = {"customerName":"Mikael","customeID":1234,"customerOrder":"Spaghetti"}
```

Figure 2

Write a suitable python code to manipulate the dictionary and display each output based on the following task:

a. **add new item "customerPrice: RM 13.90" to the dictionary.**
b. **change the value of customerID to 5678.**
c. **remove the last item in the dictionary.**
d. **clear all the items in the dictionary.**

(25 marks)

SOURCE CODE & OUTPUT:

a.

```
#a. Add new item "customerPrice":RM13.90 to the dictionary
print("Add new item customerPrice:RM13.90 to the dictionary")
order["customerPrice"] = "RM13.90"
print(order)
print("\n")
```

```
Add new item customerPrice:RM13.90 to the dictionary
{'customerName': 'Mikael', 'customeID': 1234, 'customerOrder': 'Spagetti', 'customerPrice': 'RM13.90'}
```

b.

```
#b. Change the value of customerID to 5678
print("Change the value of customerID to 5678")
order["customeID"] = 5678
print(order)
print("\n")
```

```
Change the value of customerID to 5678
{'customerName': 'Mikael', 'customeID': 5678, 'customerOrder': 'Spagetti', 'customerPrice': 'RM13.90'}
```

c.

```
#c. Remove the last item in the dictionary
print("Remove the last item in the dictionary")
order.popitem()
print(order)
print("\n")
```

```
Remove the last item in the dictionary
{'customerName': 'Mikael', 'customeID': 5678, 'customerOrder': 'Spagetti'}
```

d.

```
#d. clear all the items in the dictionary
print("clear all the items in the dictionary")
order.clear()
print(order)
print("\n")
```

```
clear all the items in the dictionary
{}
```

CONCLUSION:

So, from this task, we learn on how to use function to make our code cleaner and perfect in the first question, second question we learn on manipulate tuple using various list method as our middleman, lastly on question three, we learn on how to manipulate dictionary and alter the data