AISSCE PRACTICAL EXAMINATION – 2020

SUBJECT: COMPUTER SCIENCE NEW (083) **LANGUAGE : PYTHON**

TIME: 3 HOUR **School Code: 14159** **MAX. MARKS: 30**

Question-1

(A) Define functions in Python with following description: **[07 Marks]**

Global Variables

- Variable AdmNo (Admission Number) of type integer
- Variable Name of type string
- Variable Agg(Aggregate Marks) of type float
- Variable Grade of type string
- A user defined function **GradeMe( )** to find the Grade as per the Aggregate Marks obtained by a student. Equivalent Aggregate marks range and the respective Grades are shown as follows

Aggregate Marks	**Grade**
> = 80	A
Less than 80 and > = 65	B
Less than 65 and > = 50	C
Less than 50 and > = 33	D
Less than 33	E

- A function **Enter( )** to allow user to enter values for AdmNo, Name, Agg & call function **GradeMe( )** to find the Grade
- A function **Result ( )** to allow user to view the content of all the data members.

OR

Write menu driven Stack Application with CREATE ( ), POP ( ), PUSH ( ) and DISPLAY ( ) methods in Python.

(B) **[03 Marks]**

Write function to establish the connection between python and SQL and also write code for passing SQL query to display the records of **Cricket** player in python IDLE.
Details of connection is as below.

Database: Examination, host=localhost, user=root password=cbse
Table name=Player

StudentNo	Class	Name	Game	Grade
10	7	Tina	Cricket	B
11	8	Kamal	Tennis	A
12	7	Divya	Cricket	B
13	7	Vimal	Tennis	C
14	9	Pooja	Basketball	A
15	10	Shourya	Cricket	A

Question 2. Report File + viva **(7+2=9 Marks)**

Question 3. Project + viva **(8+3=11 Marks)**

 # AISSCE 2020 Practical for CS New (083)

Question-1, Part-A

```
def Enter():
    global AdmNo
    global name
    global agg
    AdmNo=int(input("Enter Admission No.: "))
    name=input("Enter Name of Student: ")
    agg=float(input("Enter Aggregate Marks (1-100): "))
    GradeMe()

def GradeMe():
    global grade
    if(agg>=80):
        grade='A'
    elif(agg>=65):
        grade='B'
    elif(agg>=50):
        grade='C'
    elif(agg>=33):
        grade='D'
    else:
        grade='E'

def Result():
    print("Records of Student\n")
    print("Admission No.: ",AdmNo)
    print("Nameof Student: ",name)
    print("Aggregate Number: ",agg)
    print("Grade of Student: ",grade)

Enter()
Result()
```

Question-1, Part-A

```
# Stack Application
def create():
    global stack
    stack=list()
    n=int(input("How Many nodes: "))
    while n>=1:
        i=0
        el=int(input("Enter Inteer Element: "))
        stack.append(el)
        i+=1
        n-=1
    print("Stack Created")

def pop():
    if(len(stack)==0):
        print("stack empty")
    else:
        stack.pop()
        print("Element deleted")
def push():
    el=int(input("Enter element for new node: "))
    stack.append(el)
    print("Element push successfully")

def display():
    print("Elements of Stack")
    print("******************")
    if(len(stack)==0):
        print("Stack is Empty")
    else:
        for el in stack:
            print(el,end=" -> ")
def menu():
```

```
    msg='''
    **********Stack Application**************
    Enter 1 for remove stack and create new stack
    Enter 2 for pop element from stack
    Enter 3 for push element in stack
    Enter 4 for display element of stack
    Enter 5 for Quit Stack Application
    ***************************************'''
    print(msg)
    option=int(input("Your Option: "))
    if(option==1):
        create()
        input()
        menu()
    elif(option==2):
        pop()
        input()
        menu()
    elif(option==3):
        push()
        input()
        menu()
    elif(option==4):
        display()
        input()
        menu()
    elif(option==5):
        quit()
    else:
        print("Enter correct option")
        menu()
create()
menu()
```

Question-1, Part-B

```
#Establish connection between Python and SQL

def connection():
        import mysql.connector as cnt

        mydb=cnt.connect(
                host="localhost",
                user="root",
                password="cbse",
                database="Examination"
                )

        mycursor=mydb.cursor()

        if mydb.is_connected():
            print("Connection Successful")
        else:
            print("Connection Failed")

# Code to pass SQL Query and display result of table: Player
        mycursor.execute("select * from Player where game=”Cricket”)
        for rec in mycursor:
            print(rec)
        print(mycursor.rowcount," Rows Selected")
```

Output:

StudentNo	Class	Name	Game	Grade
10	7	Tina	Cricket	B
12	7	Divya	Cricket	B
15	10	Shourya	Cricket	A