Roll Number		

SET C

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION
COMPUTER SCIENCE

CLASS: XI | Sub. Code: 083 | Time Allotted: 3 Hrs

24.09.2019 | Max. Marks: 70

General Instructions:

- All questions are compulsory.
- Please check that this question paper contains 3 printed pages.
- Please check that this question paper contains 7 questions with subparts.
- All questions related to programming are based on PYTHON.

1 a	Name the basic units of Computer along with its sub units.	1
b	What is Utility software? Name its type.	2
c	What is private cloud computing?	1
d	Arrange the memory units from smallest to biggest : Giga Byte, Byte, Tera Byte, Peta Byte	2
e	Distinguish between internal and external memory.	2
2 a	Give duals for the following : i. X'Y+XY+XY' ii. (A+0).(A.1.A')	2
b	Design a logic circuit for the expression : F(X,Y,Z)=(X+Y).(Y'.Z')(X.Z)	2
c	State and prove the Absorption law with the help of truth table.	3
3 a	Write the full form of ASCII.	1
b	Write the next four terms for the HEXADECIMAL number series – 98,99 .	1
c	Convert the binary number 110011010 to HEXADECIMAL and OCTAL.	2
d	Convert the following as instructed : i. $(11001110.10)_2 = (\ )_{10}$ ii $(FACE)_{16} = (\ )_2$	2
e	Add the binary numbers 100111 and 110011	2
f	Draw a flow chart to print factorial of a number.	2
4 a	Name the types of tokens in PYTHON.	1
b	Identify the valid and invalid identifiers from below: i. Input ii. RNO2 iii. while iv. S.NO	1
c	What is the use of else clause in python loops. Give example.	2
d	What are Comment statements? Explain its type with an example.	2

e Evaluate and give the result : 2

i) not(False or True)

ii) (15>10) or (10<5) or (True and not 0==0)

f Give the output for the following code snippet: 2

```
x=20
x=x+5
x=x-10
y,y=x,x+10
print (x,y)
x,y=x-1,50
print (x,y)
```

5 a How are these numbers different from one another : 78, 78j, "78",78.0 1

b Will the following code produce any result? Justify your answer. 1

```
x= "Monty Python"
y=2
print (x+y)
```

c Write the output for the following Python code: 2

```
x=32
y=0
while x>y:
   x=x-4
   y+=4
   print(x,end=' ')
```

d Find errors in the following code (if any) and correct it. Rewrite the correct code. 2

i.
```
a,b,c= 10,20,4
 x=a+bc+ a*c
```

ii.
```
age=input("Enter age")
if age>65:
   print("Senior")
elif age < 18:
   print("Junior")
else
PRINT("Minor")
```

e Write the output for the following Python code: 2

```
a=[8,16,24]
b=[4,5,6]
c=a+b
d=c[2:5]
c[5]=a[2]
c[1]=2
print(c)
print(d)
```

f Consider the following Python program and convert it to for loop without changing the output values. Also give the output for the following code snippet: 3

```
N= 20
i=1
```

```
sum = 0
while i<N:
    if i%2==0:
        sum = sum+i
    i= i+3
print(sum)
```

6 a Write the difference between syntax error and semantics errors Name any two built in exceptions. 3

b WAP to print the following using nested loop 3

```
2
2 4
2 4 6
2 4 6 8
2 4 6 8 10
```

c Write the output of the following code : 3

```
x=0
for i in range(0,5,2):
   for j in range (0,i):
      x=x+ (i+j-1)
      print(i,"@",j)
print(x)
```

d Why lists are called mutable explain with an example. Write the output of the following code: 3

```
L=['F','R','I','E','N','D','S']
x=len(L)
for a in range(1,x,2):
   print("Value at ", a ," and the element at ", a-x ," is ", L[a] )
```

7 a WAPP input an integer N from the user. Check whether it is prime number or not and print it. 4

b Write code in Python to accept name of an item, unit price, quantity and find Amount (unit price * quantity). Find discount as given below: 4

Amount	Discount
>=12000	10%
>=8000 but <12000	7%
>=5000 but<8000	5%
<5000	No discount

Find net price as Amount – Discount. Display all details.

c WAPP to print the first 10 Fibonacci numbers. (Fibonacci numbers are: 0 1 1 2 3 5 8…) 4

End of the Question Paper