

**SAMPLE PAPER**

**Half Yearly Examination**

**Class -XI**

**MM: 70**

**Subject: Computer Science (083)**

**Time:3 Hours**

**All questions are compulsory.**

- Q. 1. **10 marks**
- a) Define computer **1**
  - b) Which is computer memory? **1**
  - c) Differentiate compiler and interpreter? **2**
  - d) Define following: **2**
    - i. Operating System
    - ii. Parallel Computing
  - e) Write difference between SRAM and DRAM. **2**
  - f) Prove De-morgan s law using truth table. **2**
- Q. 2. **10 marks**
- a) Convert following **2**
    - 1)  $(101110)_2 = ( )_8$
    - 2)  $(4156)_8 = ( )_{16}$
  - b) Write full form of following **2**
    - 1)ASCII
    - 2)ISCI
  - c) Define proprietary software and write any two example . **1**
  - d) What is data? What is output of data processing system? **1**
  - e) What is bit? How bit, byte and nibble are related with each other? **2**
  - f) What is application software? Write any two example. **2**
- Q. 3. **8 marks**
- a) differentiate keyword and identifier? **2**
  - b) From the following, find out the invalid identifier: **2**

`_abc_d, break, 1rak, doc14, a2bc5,_punc, ray.dat`
  - c) What is literal in python? **2**
  - d) What will be the output produced by following code fragment? **2**

```
x, y= 10, 20
y, x, y=x, y-10, x+10
print (x, y)
```
- Q. 4. **10 marks**
- a) What are data types? What are python s built in core data types? **2**
  - b) What do you understand by term immutable ? Explain with a suitable example. **2**
  - c) What will be the output of the following code and why? **2**

```

a,b,c=0.1
d=0.3
e=a+b+c-d
f=a+b+c==d
print(e)
print(f)

```

d) What will be the output of following Python code? **2**

```

a=12
b=7.4
c=1
a-=b
print (a, b)
a*=2+c
print(a)
b+=a*c
print( b )

```

e) Write a program to determine if the number is even or odd. **2**

Q. 5. **10 marks**

a) What is the output of the following lines of code? **2**

```

if int( zero ) == 0 :
    Print( zero )
elif str(0) == zero :
    Print (0)
elif str(0) == 0 :
    Print (str(0))
else:
    Print( none of the above )

```

b) What is the output produced by the following code? **2**

```

x=1
if x>3:
    if x>4:
        printf( A ,end= )
    else:
        print( B ,end= )
elif x<2:
    if (x!=0):
        print( C , end= )
print( D )

```

c) Write a Python script to print Fibonacci series first 20 elements. Some initial elements of a Fibonacci series are: **3**

0            **5 8** .....

d) Write programs using nested loops to produce the following patterns: **3**

A  
A B  
A B C  
A B C D  
A B C D E  
A B C D E F

Q. 6.

**12 marks**

a) Write a program to find the second largest number of a list of numbers. **3**

b) Identify the errors in the following code: **2**

i. L1 = [1,2,3,5]  
An = L1.remove(7)

ii. L1 = [1,3,5,8]  
An = L1.remove(8)  
print(An + 2)

c) Find out the output of following code segment: **2**

```
numlist = [2,5,2,3,6,6,9]
pos=0
odds=evens=0
length=len(numlist)
while pos<length:
    if numlist[pos]%2==0:
        evens=evens+1
    else:
        odds=odds+1
    pos=pos+1
if odds>evens:
    print( Balanced oddity )
```

d) Write a program that reads a string and checks whether it is a palindrome string or not. **3**

e) Find the errors in the following code— **2**

```
s= PURA VIDA
s1=s [ : 5]
s2=s [ 5 :]
s3=s1 * s2
s4=s2 + 3
s5=s1+3
```

Q. 7.

**10 marks**

a) What do you mean by Syntax errors and Semantics errors? Answer with example. **2**

b) How are tuples different from list when both are sequences? **2**

c) Consider the following code and then answer the question that follow— **4**

```
myDict={ a :27, b :43, c :25, d :30}
valA=
for l in myDict:
    if l > valA
        valA=l
        valB= myDict[l]
print (valA) #Line1
print (valB) #Line2
print (30 in myDict) #Line3
myLst= (myDict.items())
myLst.sort()
print (myLst[-1]) #Line4
```

Write the output of the Line 1,2 ,3 and 4

d) What type of objects can be used as keys in dictionaries? Also explain why?

**2**