Roll Number		

SET   A

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION
INFORMATICS PRACTICES

CLASS: XI   Sub. Code: 065   Time Allotted: 3 Hrs

29.09.2019   Max. Marks: 70

General Instructions:
1. Answer all Questions.
2. Answer all subdivisions of a question before attempting the next.

1.

(a)   Expand : (i) PROM   (ii) CPU   1

(b)   State any four features required for the transition from a Calculator to a Computer.   2

(c)   Give any two methods to trouble shoot the following problem in your computer - All Programs on   2
        Computer run slowly

(d)   Explain the various functional components of a computer with a neat diagram.   3

2.

(a)   State any two advantages of Python.   2

(b)   What is the difference between interactive mode and script mode in Python?   2

(c)   Who developed Python Programming language?   1

(d)   Find valid and invalid identifiers from the following list. State the reason for invalid identifiers.   2
            (i) Emp no   (ii) salary12   (iii) DA_all   (iv) PF_New#Dept

(e)   Identify the type of literal.   2
        (i) 078   (ii) 0x23A   (iii) 'Better'   (iv) -4.3E12

(f)   Find the length of the following String literals.   2

            (i) "Krish\'s"
            (ii) 'Navi#Mumbai@12'
            (iii) '''This is
                    Quite
                    Interesting'''
            (iv) "It is a good\
                    Place"

3.
(a) Find the output : 1
```
X=40
Y=X-1
X, Y=20,Y+X
print(X,Y)
```

(b) Rewrite the corrected statements after removing the error(s) in it: 1
   (i) Roll no = 20   (ii)   10 = Age

(c) Write Python program to accept name, school and age and print them in three separate lines using a single print function. 2

(d) What do you mean by type casting ? Give an example. 2

(e) Given y=3, What would be the result of the following code ? 2
   (i) y == 3   (ii) "Hello" > "hello"   (iii) y >= 4   (iv) y < 7 and 4 > 5

(f) Write following expressions in Python : 2
   (i) $d = \sqrt{(x2 - x1)^2 + (y2 - y1)^2}$ (ii) $\frac{1}{3}b^2h$

4.
(a) Evaluate the following Boolean expressions if a=False, b=True and c=False. 2
   (a) b or c   (b) not a and b   (c) not((not b or not a) and c) or a   (d) not c and a or b

(b) Write Python program to accept temperatures for a week and print average temperature of the week. 2

(c) What do you mean by Compound statement in Python ? Give an example. 2

(d) A store charges ₹120 per item if you buy less than 10 items. If you buy between 10 and 99 items, the cost is ₹100 per item. If you buy 100 or more items, the cost is ₹70 per item. Write a Python Program that asks the user how many items they are buying and prints the total cost. 2

(e) Find the error(s) in the following code and Rewrite the corrected code: 2
```
if n==0
    print("ZERO")
elif : n==1
    print("ONE")
elif
    N==2:
    print("TWO")
```

(f) Find the output: 2
```
X=1
if X>3:
    if X>4:
        print("A", end = ' ')
    else:
        print("B", end = ' ')
```

```
elif X<2:
    if (X != 0):
        print("C", end = ' ')
print("D")
```

(g) Hawais Shop deals with apparels and footwear. Write a program in Python to accept selling price   4
(per unit) of the item and item code ('A' for Apparel and 'F' for footwear) and compute total GST
as per the following conditions.

Item	GST Rate(central + state)
Apparels <= 3000 (per piece)	6%
Apparels > 3000 (per piece)	12%
Footwear <= 1000 (per pair)	5%
Footwear > 1000 (per pair)	18%

Compute Central Government GST, State Government GST and total amount (selling price +
central GST + state GST). Display original selling price, Central GST amount and State GST
amount and Final amount.

5.

(a) Define a database.   1

(b) Explain Alternate key of a table with an example.   2

(c) Mr. Sen has to create a table named 'Employee' with columns to store EmpID, Name,   2
Designation, Age and Salary. EmpID is the Primary key and Name cannot be NULL. Some of the
rows that will be inserted are shown below.
101, Smita Kumar, Secretary, 28, 39500.00
102, Mani Scott, Programmer, 32, 45300.00
103, Firdaus Ali, Programmer II, 45, 67500.00
Write SQL query to create the above table with appropriate data types and sizes of columns and
add the above rows.

6. Write SQL Commands for (a) to (m) and write the outputs for (n) on the basis of table
HOSPITAL.

Table : **HOSPITAL**

PatientID	Name	Age	Department	DateofAdm	Gender
241	Sandeep	65	Surgery	2019/09/23	M
745	Ravina	24	Orthopedic	2019/09/15	F
112	Zubin	36	Cardiology	2019/09/20	M
886	Zareen	45	Cardiology		F
245	Karan	19	ENT	2019/09/28	M

(a) Give the degree and cardinality of the table HOSPITAL.   1

(b) Give the names of the patients in descending order of Age.   1

(c) Display patient names whose second letter is 'a'.   1

(d) Display name and age of the patient for whom Date of Admission is not given.   1

(e) Display male patients who joined after 21st September, 2019.   1

(f) Display Id and Department of the Patients whose Id is above 650.   1

(g) Add a new row with the following values   1
    PatientID = 398, Name = 'Tarun', Age=51 and Gender='M'

(h) Set the Department of Zareen to 'Internal Medicine'   1

(i) Display the names of the Patients whose Ids are 245, 112 and 241.   1

(j) Display the names of female patients who are aged between 20 to 40 years.   1

(k) Add a new column Doctor to store the name of the Doctor treating them.   1

(l) Display the names of the patients whose names start with 'Z' and end with 'n'.   1

(m) Remove the details of the patient from Surgery Department.   1

(n) Give the output of the following SQL commands on the basis of the above table HOSPITAL: 7

        i.   SELECT Name FROM HOSPITAL WHERE Gender='M';
        ii.   SELECT AVG(Age) FROM HOSPITAL;
        iii.   SELECT COUNT(*) FROM HOSPITAL;
        iv.   SELECT Name FROM HOSPITAL WHERE DateofAdm > '2019/09/20';
        v.   SELECT DISTINCT Department FROM HOSPITAL;
        vi.   SELECT Age FROM HOSPITAL WHERE Name LIKE '%n';
        vii.   SELECT Name FROM HOSPITAL WHERE Age BETWEEN 35 AND 45;

End of the Question Paper