NORTH-EX PUBLIC SCHOOL
(Senior secondary, affiliated to CBSE)
School block, jain nagar, sector-38, Rohini, delhi-81
FINAL EXAMINATION, 2019-20
SUBJECT-Informatics Practices
CLASS-XI

TIME: -3Hr **M.M.70**

Answer the following questions: -

Ques.1 (i) What are the various categories of software? **(1)**

(ii) Conversion: (a) $(1100001)_2$ to decimal (b) $(460)_{10}$ to Binary **(2)**

(iii) Give two examples for each **(a)** Magnetic Media **(b)** Optical Media **(2)**

(iv) Define each of the following: **(a)** nibble **(b)** gigabyte **(c)** kilobyte **(d)** megabyte **(2)**

(v) What is the difference between Assembler, Interpreter and Compiler? **(3)**

(vi) What is the difference between RAM and ROM? RAM and ROM are parts of which type of Memory **(3)**

Ques.2 (i) What are the pluses and minuses of Python? **(2)**

(ii) What is the difference between Lists and Tuples? **(2)**

(iii) What is looping statement? Explain two categories of loops. **(2)**

(iv) Solve the equation by using operator: **(2)**

17.0 // 3+ 22 % 4 – 5+ 42 / 5.0 + 5 ** 2

(v) Define Expression? Explain mixed type expressions with the help of example. **(3)**

Ques.3 What will be the output of the following code: **(3)**

(i)
```
a=10
b=10
print (a>b)
print (a==b)
print (a<=b)
print (a>=b)
```

(ii)
```
length=2
breadth=5
area=length*breadth
print('Area is', area)
print('Perimeter is', 2*(length+breadth))
```

Ques.4 What is flow chart? How to find sum of two numbers? **(3)**

Ques.5 (i) Why is Boolean considered a subtype of integers? **(2)**

(ii) What is the output of following code? **(2)**

```
if (4+5==10):
    print("TRUE")
else:
    print("FALSE")
print("TRUE")
```

Ques.6 (i) Why can't list can be used as keys? **(1)**

(ii) What will be the output of following code? Why? **(1)**

len(13) or 13

Ques.7 From the series of areas(given below that stores area of states in km^2) find out the areas that are more than 460 km^2. **(4)**

Ser1=pd.Series ([567,362,564,789.450, 390,128,674,794,383,456])

Ques.8 Give two data frame one and two as shown here. What will be the result of the following? **(5)**

df1

	Name	Value
0	**J**	**7.0**
1	**k**	**NaN**
2	**L**	**8.4**
3	**M**	**NaN**

df2

	Name	Value
0	**P**	**NaN**
1	**Q**	**6.2**
2	**R**	**5.0**

a) Pd.concat([One, Two]), ignore_index=True b) Pd.concat([One, Two]), axis=1)
c) Pd.merge(One,Two,on='name') d) One.rsub(Two) e) One.radd(Two)

Ques.9 (i) Compare CHAR and VARCHAR data types. **(2)**
(ii) Give example of some DDL commands and some DML commands. **(3)**

Ques.10 Consider the **Table Supplier** given below. Write command in MySql for (i) to (iv) and Output for (v) to (vii) **(7)**

Table: Supplier

Scode	Pname	Supname	Qty	City	Price
101	Coffee	Nestle	200	Kolkata	55.00
102	Biscuit	Hide & Seek	100	Delhi	10.00
103	Jam	Kissan	110	Kolkata	25.00
104	Maggi	Nestle	150	Mumbai	10.00
105	Chocolate	Cadbury	170	Delhi	25.00
106	Sauce	Maggi	56	Mumbai	55.00
107	Cake	Britania	72	Delhi	10.00

(i) To display name of the products, whose Pname starts with 'B' in ascending order of Price?
(ii) To display Supplier code, Product name and City of the products whose quantity is less than 150.
(iii) To count distinct City in the table.
(iv) To insert a new row in the table Supplier.
'110', 'Bournvita', 'ABC', 170, 'Delhi', 40.00.
(v) Select Pname from Supplier where Pname IN ("Bread", "Maggi");
(vi) Select Count (distinct (City)) from Supplier;
(vii) Select max (Price) from Supplier where City=" Kolkata";

Ques.11 Given the following 2 relations: (**3)**

AB CD EF

I	202	Y
J	205	Y
K	205	Z
L	207	Y
P	202	Z
S	209	

CD GH IJ

202	p	R
207	q	T
202	p	U
209	q	T

What will be the **Equi Join** and **Natural Join** of these two relations?

Ques.12 (i) How pharming is different from phishing? **(2)**
(ii) What is the difference between Cyber Bullying and Cyber Trolling? **(2)**
(iii) What is private browsing? Explain Virtual Private Network. **(3)**
(iv) What is Eavesdropping? What security measures can you take to prevent it? **(3)**