

**St. Mary's School, Dwarka**  
**Holiday Homework**  
**Class XI**  
**Subject: Informatics Practices (065)**

- Q1. What is the output of the following? 1  
x = (i for i in range(3))  
for i in x:  
    print(i)  
a) 0 1 2                      b) 1 1 1 1 1  
c) 0 1 2 0 1 2              d) 0 0 0 0 0 0
- Q2. What is the average value of the code that is executed below? 1  
>>>grade1 = 80  
>>>grade2 = 90  
>>>average = (grade1 + grade2) / 2  
a) 85.0              b) 85.1              c) 95.0              d) 95.1
- Q3. Which of the following expressions results in an error? 1  
a) float('10')              b) int('10')  
c) float('10.8')              d) int('10.8')
- Q4. What is the output of the following code? 1  
a={1:"A",2:"B",3:"C"}  
for i,j in a.items():  
    print(i,j,end=" ")  
a)1 A 2 B 3 C              b)1 2 3              c) A B C              d)1:"A" 2:"B" 3:"C"
- Q5. Suppose Mx is [3, 4, 5, 20, 5, 25, 1, 3], what is list Mx after Mx.extend([34, 5])? 1  
a) [3, 4, 5, 20, 5, 25, 1, 3, 34, 5]  
b) [1, 3, 3, 4, 5, 5, 20, 25, 34, 5]  
c) [25, 20, 5, 5, 4, 3, 3, 1, 34, 5]  
d) [1, 3, 4, 5, 20, 5, 25, 3, 34, 5]
- Q6. Differentiate between i) DDL and DML commands ii) char and varchar datatypes 2
- Q7. Write about % and \_ wild card characters with reference to like clause in SQL. 2
- Q8. Mr. Shankar created a relation "Vehicle" with 3 rows and 4 columns. He added 1 more row to it and deleted 1 column. What is the Cardinality and Degree of the Table Vehicle'? 2
- Q9. Write the SQL command/output for the following- 1x6=6

ID	Name	Department	Hiredate	Category	Gender	Salary
1	Tanya Nanda	SocialStudies	1994-03-17	TGT	F	25000
2	Saurabh Sharma	Art	1990-02-12	PRT	M	20000
3	Nandita Arora	English	1980-05-16	PGT	F	30000
4	James Jacob	English	1989-10-16	TGT	M	25000
5	Jaspreet Kaur	Hindi	1990-08-01	PRT	F	22000
6	Disha Sehgal	Math	1980-03-17	PRT	F	21000
8	Sonali Mukherjee	Math	1980-11-17	TGT	F	24500

- (i) To display all information about teacher of PGT category.
- (ii) To list the names of female teachers of Hindi department.
- (iii) To list names, departments and date of hiring of all the teachers in ascending order of date of joining.
- (iv) To count the number of teachers in English Department.
- (v) Display the department and hire date of all the female teachers whose salary is more than 25000.
- (vi) Display the list of teachers whose name starts with J.

- Q10    a) Name any two popular antiviruses. 1  
           b) Compare various language translators. 3
- Q11.   Describe the terms free software and open-source software. Write one example each of Proprietary and OSS Software. 2
- Q12    How do Block Chain technology work? Write any three benefits of Block Chain technology?
- Q13    What are core data types in Python? Explain. 2
- Q14    What are the ways to write comments in Python? 2
- Q15    Write a program in Python to do the following: 2x5=10
- a) to perform linear search on given list : [10,51,2,18,4,31,13,5,23,64,29]
  - b) to read two numbers and an arithmetic operator and display the computed result.
  - c) to count the frequency of even numbers in a list and store the frequency in a dictionary.
  - d) to read an integer and find its reverse.
- Note: if user enter 1234 then the output should be 4321.
- e) to calculate and print roots of a quadratic equation:  $ax^2 + bx + c = 0$