Brain International School
Vikas Puri, New Delhi

REVISION SHEET

SUBJECT: INFORMATICS PRACTICES CLASS-XI JAN,2026

UNIT 1 : COMPUTER SYSTEM ORGANISATION

1. Name any two components of a computer system.
2. What is the role of the Control Unit (CU), Write the full form of ALU.
3. What is primary memory?
4. Differentiate between hardware and software.
5. What is system software? Give two examples.
6. What is an operating system? Write any two functions of an operating system.
7. Differentiate between RAM and ROM.
8. What is the difference between input devices and output devices?
9. Explain the block diagram of a computer system with the function of each unit.
10. What are various categories of softwares, explain each with examples?

UNIT 2 : COMPIUTATIONAL THINKING AND PROGRAMMING
QUESTIONS BASED ON THEORETICAL CONCEPTS

1. What is a programming language? Why is Python called a high-level language?
2. Explain the features of Python that make it suitable for beginners as well as professionals.
3. Differentiate between syntax errors, runtime errors, and logical errors with suitable examples.
4. What are tokens in Python? Explain different types of tokens with examples.
5. What are variables in Python? Explain dynamic typing with an example.
6. Differentiate between mutable and immutable data types. Name two examples of each.
7. Explain different types of operators in Python. Give examples of any four.
8. What is operator precedence? Why is it important in Python expressions?
9. Explain different ways of taking input in Python. Why is type conversion often required with input?
10. What is type casting? Differentiate between implicit and explicit type conversion.
11. Explain the working of if–elif–else statement. When is it preferred over nested if?
12. Differentiate between conditional expressions and conditional statements.
13. Differentiate between for loop and while loop. Give situations where each is preferred.
14. Explain the use of break, continue, and pass statements in Python.
15. What is an infinite loop? Mention one situation where it may occur unintentionally.
16. What are strings in Python? Explain string indexing and slicing with examples.
17. Explain any four commonly used string methods and their purpose.
18. Differentiate between lists and tuples on the basis of mutability, performance, and usage.
19. Explain dictionaries in Python. How are keys different from values?
20. Why is Python called an interpreted language? How does it affect program execution?

QUESTIONS BASED ON PROGRAMMING

1. Write a Python program to input two numbers and print the greater number.

2. Write a Python program to check whether a string is palindrome or not.

3. Write a program to find sum of all elements of a numerical list given by user without using sum() function.

4. Consider list L= [8,9,10,11,12]

Write a single line python statement to do the following using list functions.

(a) Set the second entry (index 1) to 17

(b) Add 4, 5 and 6 to the end of the list.

(c) Remove the first entry from the list.

(d) Add 15 at the end of the list.

(e) Insert 25 at index 3

5. Given the dictionary:

employee = { "name": "Ritu", "age": 30, "department": "HR", "salary": 45000}

Write a Python program to do the following:
a. Print the value of the key "department".
b. Change the "salary" to 50000.
c. Add a new key "experience" with value 5.
d. Remove the key "age" from the dictionary.
e. Display the final dictionary.

6. Write a program to find sum of all elements of a numerical list given by user without using sum() function.

7. Write a program that accepts three numbers and prints the largest of the three using the conditional statement 'if'?

8. What will be the output produced by the following code statements?

a) 17%5 b) bool(0) c) bool('0')

d) 87//5 e) len(str(bool(1))) f) len(str(17/4))

9. Write a program to check whether an element exists in list?

10. Write a program to print all the names having length more than 5 characters from a list of strings.

UNIT 3 : MYSQL

1. Consider table student and answer below queries

AdmNo	Name	Class	Section	Gender	City	Marks
101	Aarav	11	A	M	Delhi	82
102	Ananya	11	B	F	Mumbai	91
103	Rohan	11	A	M	Delhi	68
104	Priya	11	C	F	Chennai	75
105	Kunal	11	B	M	Mumbai	88
106	Neha	11	A	F	Delhi	95

1. Display all the details of students who belong to **Class 11**.
2. Display the **names and cities** of students whose **marks are greater than 75**.
3. Display all details of students who belong to **Delhi OR Mumbai**.
4. Display the details of students who **do not belong to Delhi**.
5. Display names of students whose **name starts with the letter 'A'**.
6. Display names and marks of students whose **marks are between 70 and 90**.
7. Display details of students who belong to **Section A AND are females**.
8. Display names of students whose **city is either Delhi, Mumbai, or Chennai**.
9. Display the **name as "Student Name"** and **marks as "Score"** for all students.
10. Display details of students whose **name does not start with 'R'**.

2. Classify the following commands as DDL/DML .
Also write the purpose and syntax of each command
a) insert b) alter c) delete

3. Give 3 differences between Alter and Update commands of SQL

4. Give difference between DDL and DML commands of sql.

5. What is difference between char and varchar data types of sql?

6. Write query to add a column Grade (to store a single character) in the above table student?

7. Write query to change marks of kunal to 85 in the above table?

8. Write query to create above table student?

9. Write query to change name of column 'Name' to 'Stu_Name'?

10. Write query to delete all the records with marks below 80?

UNIT 4: EMERGING TRENDS

1. What is Cloud Computing? Write two advantages of using it in business.
2. Differentiate between Artificial Intelligence (AI) and Machine Learning (ML) with suitable examples.
3. List any two applications of Robotics in real life.
4. What is Big Data? How is it useful in the field of healthcare or e-commerce?
5. Write short notes on any two of the following:

a) Internet of Things (IoT) b) Virtual Reality (VR) c) 3D Printing

6. What is Blockchain Technology? Mention one of its applications outside cryptocurrency.
7. Explain the term Augmented Reality (AR). Give one real-life example where AR is used.
8. Write any three advantages and two disadvantages of using Cloud Storage.
9. How can Artificial Intelligence be used in: a) Education b) Transport
10. Differentiate between Virtual Reality (VR) and Augmented Reality (AR) with suitable examples.