REVISION SHEET

SUBJECT: COMPUTER SCIENCE   **CLASS-XI**   **TERM 1**

Chapter 1: Computer System Organisation

1. Which of the following memory units is volatile?
   a) ROM   b) Hard Disk   c) RAM   d) SSD

2. Which of these is **not** a type of input device?
   a) Scanner   b) Keyboard   c) Monitor   d) Mouse

3.

4. ALU is a part of:
   a) CU   b) RAM   c) CPU   d) ROM

5. Cache memory is located between:
   a) CPU and RAM   b) RAM and Hard Disk   c) CPU and ROM   d) ALU and CU

6. Which port is used to connect a keyboard?
   a) HDMI   b) PS/2   c) USB   d) VGA

6. Define the function of Control Unit.

7. Explain how cache memory improves system performance.

8. Mention any two differences between an interpreter and a compiler.

9. What are the different types of software? Give examples.

10. Draw a block diagram of a computer and explain each component.

_____

Chapter 2: Data Representation

1. Binary equivalent of decimal 25 is:
   a) 11000   b) 11001   c) 10101   d) 10011

2. 1 KB equals:
   a) 1000 bytes   b) 1024 bytes   c) 100 bytes   d) 1024 bits

3. In 1's complement, the number 1010 becomes:
    a) 0101   b) 1111   c) 1001   d) 0101

4. ASCII uses how many bits per character?
    a) 7   b) 8   c) 16   d) 6

5. Unicode supports how many characters approximately?
    a) 256   b) 65536   c) 1024   d) 100000

6. Convert $(78)_{10}$ to binary.

7. Convert the binary number 110011 to decimal.

8. What is the significance of Unicode over ASCII?

9. Convert $(AF)_{16}$ to binary.

10. Convert the following:

   1. $(1100111)_2$ to octal

   2. $(2F)_{16}$ to decimal

Chapter 3: Boolean Logic

1. NOT 1 is:
    a) 1   b) 0   c) -1   d) Cannot determine

2. In Boolean algebra, the expression A + 0 equals:
    a) A   b) 0   c) 1   d) A'

3. The dual of A + AB is:
    a) A(1 + B)   b) A + A + B   c) A · (A + B)   d) A · (A + B)

4. The result of A · A' is:
    a) 0   b) 1   c) A   d) A'

5. A logic gate that gives output 1 only when inputs are different is:
    a) AND   b) OR   c) XOR   d) NAND

6. Draw the truth table of XOR gate.

7. Prove: A + AB = A

8. Simplify using Boolean algebra: A + A'B

9. Draw logic diagram and truth table for (A + B)'

10. Construct a truth table and circuit for F = (A + B') · C

Chapter 4,5,6: Getting Started with Python ,Python Programming Fundamentals and Data handling

1. Which symbol is used to comment a line in Python?
   a) //   b) #   c) /**/   d) <!--

2. Which of the following is a valid identifier?
   a) 2value   b) my-name   c) _total   d) class

3. What is the output of: `print(2 ** 3)`?
   a) 6   b) 8   c) 9   d) 5

4. Python is a:
   a) Low-level language   b) Assembly language   c) High-level language   d) Machine language

5. The data type of 3.5 is:
   a) int   b) float   c) string   d) bool

6. Which of the following is a mutable type?
   a) Tuple   b) String   c) List   d) Int

7. The index of the first element in a Python list is:
   a) 0   b) 1   c) -1   d) None

8. Which function returns the length of a list?
   a) size()   b) length()   c) len()   d) count()

9. A tuple is enclosed in:
   a) []   b) {}   c) ()   d) <>

10. To convert the read value through input( ) into integer type, _____ ( ) is used.

a) int   b) float   c) integer   d) floating

6. List any two features of Python.

7. What is the difference between `=` and `==` in Python?

8. Define syntax error with example.

9. Explain the use of `input ()` function with an example.

10. Define variable. Give naming rules.

11. What are keywords? Give examples.

12. Differentiate between mutable and immutable data types.

13. Explain type conversion with examples.

14. Write a Python program to find the square of a number.

15. What are tokens in Python?

16. Write a program to find the average of 3 numbers entered by user.

17. Write a program to check whether a number is even or and odd.

18. Write a Python program to calculate area of a rectangle.

19. What will be the output of the code

a= 5

b= -3

c= 25

d= -10

a+b+c > a+c-b*d

str(a+b+c > a+c-b*d) == 'true'

len(str(a+b+c > a+c-b*d)) == len(str(bool(1)))

20. What would Python produce if below inputs are given for the following code
Code: bool(input("Input:")) and 10 < 13 - 2
1. 11
2. hello
3. just return key pressed, no input given
4. 0

5 - 5

Chapter 7: Flow of Control

MCQs:

1. Which statement is used for decision-making?
   a) for   b) if   c) while   d) def

2. The `while` loop is best used when:
   a) Number of iterations is known   b) Condition must be checked first
   c) List traversal   d) None of these

3. Which of these is not a loop control statement?
   a) break   b) continue   c) pass   d) return

4. `if a > b:` is an example of:
   a) syntax error   b) conditional expression   c) assignment   d) loop

5. `range(1, 6, 2)` returns:
   a) [1, 2, 3, 4, 5]   b) [1, 3, 5]   c) [1, 6]   d) [2, 4, 6]

6. Explain the use of `break` statement with example.

7. What is the difference between `for` and `while` loops?

8. What is an infinite loop? Give one example.

9. What does the `pass` statement do?

10. Write a program to print even numbers between 1 and 20.

11. Explain nested loops with an example.

12. Write a program to find the factorial of a number.

13. Differentiate between `break` and `continue`.

14. What are looping statements in python? Explain with syntax and example.

15. Write a Python program to check if a number is prime.

16. Write a program to display Fibonacci series up to n terms.

17. Write a program to display a pattern:

```
*
**
***
****
*****
```

Chapter 9: String Manipulation

MCQs:

1. Strings in Python are:
   a) Mutable   b) Immutable   c) Both   d) None

2. Which function returns the index of first occurrence?
   a) find()   b) index()   c) count()   d) replace()

3. Which operator is used for concatenation?
   a) *   b) +   c) %   d) &

4. `"abc".upper()` returns:
   a) abc   b) ABC   c) error   d) Abc

5. `"hello"[1:4]` returns:
   a) ell   b) llo   c) hel   d) elo

6. What is the difference between `isalpha()` and `isdigit()`?

7. Write a Python statement to convert a string to lower case.

8. What is string slicing? Give example.

9. Differentiate between `find()` and `index()`.

10. Explain different string methods with examples (any five).

11. Write a program to count vowels in a string.

12. Explain `replace()` and `split()` with examples.

13. Write a program to check for palindrome string.

14. Write a program to remove spaces from a string.

15. Write a program to count number of uppercase, lowercase, digits and special characters.

Chapter 8: Python Modules

MCQs:

1. Which module is used for mathematical operations?
   a) string   b) math   c) os   d) sys

2. The function `sqrt()` is found in which module?
   a) math   b) os   c) sys   d) random

3. `import math` allows:
   a) Using all math functions
   b) Create own modules
   c) Import user-defined modules
   d) None of the above

4. Which function gives the current working directory?
   a) os.getcwd()   b) sys.path()   c) os.path()   d) os.getpath()

5. `randint(1, 5)` returns:
   a) 1 or 5 only   b) Float value   c) Any int from 1 to 5   d) None

6. Write the syntax to import specific function from a module.

7. Name any four functions from `math` module.

8. What is the role of `random` module?

9. Write a program to find square root using `math` module.

10. Explain the difference between `import math` and `from math import *`.