INDIAN SCHOOL AL WADI AL KABIR

Unit Test 2025-26

SUB: Computer Science (083)

CLASS: XI   Max. Mark: 30
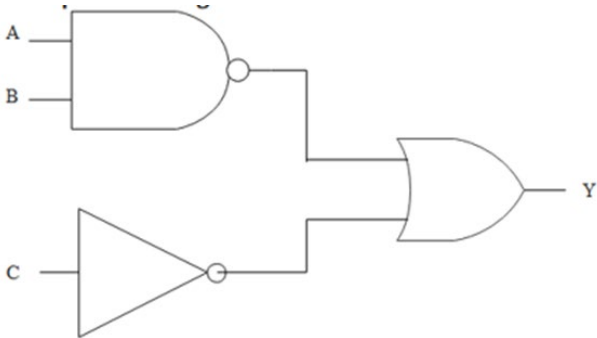
Date: 22/05/2025   Time : 1 hour

General Instructions:

1. This question paper contains four sections, Section A to D.

2. All questions are compulsory.

3. Section A have 10 questions carrying 01 mark each.

4. Section B has 03 Very Short Answer type questions carrying 02 marks each.

5. Section C has 02 Long Answer type questions carrying 03 marks each.

6. Section D has 02 Long Answer type questions carrying 04 marks each.

7. All programming questions are to be answered using Python Language only.

Q. No.	Question	Marks
	SECTION - A	
1	A computer program that converts an entire program into machine language is called a/an _____. a. Interpreter b. Compiler c. Linker d. Simulator	1
2	Antivirus is a type of which software? a. Application software b. Utility Software c. System Software d. Firmware	1
3	Which one of the following operators results in True/False? a. += b. /= c. != d. *=	1
4	Which of the following is/are not a valid identifier? a. Mybook b. @book c. _book d. book#	1

5	Which of the following forces an expression to be converted into specific type? a. Implicit type casting b. Mutable type casting c. Immutable type casting d. Explicit type casting	1
6	Which of the following is an invalid statement? a. a=b=c=20 b. a,b,c=10,20,30 c. a b c=20,30,40 d. a_b_c=20	1
7	Which of the following is not a token? a. keyword b. identifier c. expression d. operator	1
8	What will be the output of the following logic circuit? a. (A+B)' + C' b. (A + B). C' c. (A. B)'+ C' d. A'(B+ C)	1
9	Which of the following operator evaluates to True if the variable on either side of the operator points towards the same memory location and False otherwise? a. is b. and c. or d. in	1
10	Identify the invalid Python statement out of the following options: a. print("Hi" , 5 , end = "$") b. print("Hi", sep="$", 5) c. print("Hi", 5, sep="$") d. print("Hi" * 5)	1
	SECTION – B	
11	Find the output of the following code: a,b,c=6,8,4 a,b,c,a=c//2, b%3, a+3, c*2 c=a+10 print(a, b, sep='$',end='#') print(c)	2

12	Prove the following expressions using Truth Table. i. (a+b)' = a' . b' ii. x + x'y = x + y	2
13	Explain the basic components of a computer system using a block diagram	2

<div align="center">SECTION - C</div>

14	Do the following: i. $(8FD9)_{16}$ = (_____) $_8$ ii. $(876)_{10}$ = (_____) $_2$ iii. $(456)_8$ = (_____) $_{10}$	3

15	a. Evaluate the following Expressions:
	    i. 14 % 3 *2 + 2**3**2 + 36/4*3
	    ii. 7+4<8-2 and not(6/3 ==2) or 15!=15 and 6*5>5**2
	
	b. Find the output of the following code:
	
	```\na = True\nb = False\nc = True\nif not a or b:\n print ("a")\nif not a or not b and c:\n print ("b")\nif not a or b or not b and a:\n print ("c")\nelse:\n print ("d")\n```
		3

<div align="center">SECTION - D</div>

16	i. Write a python program to input a number and check whether it is an odd number or not. if yes, check whether it is ending with 7 or not. ii. Write python program to find the roots of a quadratic equation for which the coefficients are entered by the user.	4
17	i. Write a Python program to get distance from the user and print fare for the passenger according to the following criteria: Distance Fare (in Rs.) first 20km 20 /Km Next 20km 15 /Km Next 50km 10/km Above 6 /Km ii. Write a program to input 3 sides of a triangle (in cm) and print whether it is a scalene or isosceles or equilateral triangle.	4