CLASS: XI   **SUBJECT: COMPUTER SCIENCE (083)**
TIME: 3 Hrs   **MAX MARKS: 70**

General Instructions

- The question paper is divided into 3 sections – A, B and C
- Section A, consists of 18 questions (1-18). Each question carries 1 mark.
- Section B, consists of 7 questions (19-25). Each question carries 2 marks.
- Section C, consists of 5 questions (26-30). Each question carries 3 marks.
- Section D, consists of 2 questions (31-32). Each question carries 4 marks.
- Section E, consists of 3 questions (33-35). Each question carries 5 marks
- Internal choice is given to Q35.

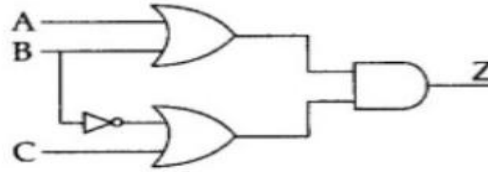| Q NO	Section -A Each question carries 1 mark (18x1=18MARKS)
1	Which of these is not the secondary memory? a)Hard disk b)ROM c)Pen Drive d)Blue-Ray disc
2	When we work on any file on PC, it is stored temporarily In_____ memory a)RAM b) ROM c) CPU d) CD-ROM
3	This gate will give the output signal as TRUE only when all the inputs are True a) NOT b) AND c) NAND d) OR
4	(A+B)' is equal to a)A'+B' b)A'B' c)(AB)' d)A'+B
5	Which of the following is not a valid string in Python? a."Hello" b. 'Hello' c.'''Hello''' d.{Hello}
6	What is the output of print(10/2) ? a)5 b)5.0 c)0 d)2.0
7	What is the output of print("ABC"<"abc") ? a)True b)False c)0 d)Error
8	What is the output of Str="" print(Str.isalpha()) a)True b)False c)Error d)yes
9	Comments in python starts with _____? a)+ b)# c)$ d)==
10	What will be the output of following python statement: - print("foo+bar") (a) foo+bar (b) foobar (c) FooBar (d) none of these
11	Which of the following is a valid statement in python? (a) abc = 1,000,000 (b) a b c = 1000 2000 3000 (c) a,b,c = 1000, 2000, 3000 (d) a_b_c = 1,000,000

12	ASCII stand for_____
13	To print the value of a variable in Python, python uses: - (a) Print() function (b) Print statement() (c) print statement (d) print() function
14	Convert $(10110100)_2$ to its octal form.
15	Write given memory size in ascending order : 20MB, 200KB, 2GB,1024 KB
16	_____ gate has only one input and it complements an input signal.
17	State Absorption law of Boolean algebra.
18	Which of the following is not a sequence? a)Tuple b)List c)Integer d)String

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Section -B

Each question carries 2 marks (7x2=14)

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19	Differentiate between RAM and ROM

20	Find error in the following code (if any) and correct code by rewriting code and underline the correction; -
	30=To
	for K in range(0,TO):
	   IF k%4==0:
	       print(K*4)
	   Else:
	       print(K+3)

21	Predict the output of the following code
	
	i=0; sum=0
	while i<9:
	   if i%4==0:
	       sum=sum+i
	   i=i+2
	print(sum)

22	Predict the output of the following code
	
	a=110
	while a>100:
	   print(a)
	   a-=2

23	What is difference between mutable and immutable date types? Explain with example

24	Find the Boolean equation of the following logic circuits.
25	**Identify the category (system, application) of the following software:** i) **Adobe Photoshop** ii) **MS Word** iii) **School management software** iv) **Linux**

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Section -C
Each question carries 3 marks(3x5=15)

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26	Differentiate between Compiler and Interpreter?
27	Write a Python Program which accept three numbers from user and display their sum and average.
28	State and prove De Morgan's Laws using truth table.
29	Identify the valid identifiers: 1.abc 2.90ab 3._a_ 4.__123 5.False 6.FOR 7.true 8.1_a_c 9.python1 10.pqr

30	Consider the following code and find the errors.
	`num = input("Enter a number: ")`
	`if (num % 2) = 0:`
	`print(num," is Even")`
	`else:`
	`print(num," is Odd")`

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Section -D
Each question carries 4 marks(4x2=8)

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31	A+BC= (A+B)(A+C) Identify the law of Boolean Algebra used in above statement and also Prove it using truth table.
32	Write a program to enter two integers and perform all arithmetic operations (+, -, *, /) on them.

	Section -E **Each question carries 5 marks (5x3=15)**
33	For the logic circuit shown in the figure What is the Boolean expression for Z? Draw the truth table for this logic circuit.
34	Your Schools uses "Student Marks Reporting System" (SMRS) to manage student-marksheet data. The software should calculate the grade of student on the basis of marks secured by the students. You are required to Write a program to accept the marks of the student in five subjects and find the grade of the student as per the following criteria | Criteria	Grade
percentage > 85	A
percentage < 85 and percentage >= 75	B
percentage < 75 and percentage >= 50	C
percentage > 30 and percentage <= 50	D
percentage <30	Reappear	

35	Write a program to check
	    (i) Whether a number entered by the user is POSITIVE,NEGATIVE or ZERO.
	    (ii) to check whether a number entered by the user is ODD or EVEN