SHREE VALLABH ASHRAM'S MCM KOTHARI INTERNATIONAL GIRLS' RESIDENTIAL SCHOOL, KILLA PARDI

PERIODIC TEST-3, 2019-20

CLASS XIS **COMPUTER SCIENCE (083)** **M.M 50; TIME 1 HR**

/12/19

Instructions:

1) All questions are compulsory

SECTION A (15 MARKS)

Q1. Convert binary numbers into decimal number. 3

(i) 101011

(ii) 111101

(iii) 110001

Q2. Convert hexadecimal number to decimal 3

(i) FACE

(ii) CAD

(iii) BED

Q3. What is code space? How its related to code point? 2

Q4. Add binary numbers: 2

(a) 110101 and 101111

(b) 10110 and 1101

Q5. What do you mean by tautology and fallacy? 2

Q6. What do you mean by principle of duality? 2

Q7. Draw the truth table of **(X+Y)'** 1

SECTION B (35 MARKS)

Q8. Write a program to find the sum of all odd number from 1 to 30s 3

Q9. Convert decimal number to binary 3

(i) 100

(ii) 23

(iii) 145

Q10. Write a program to swap any two numbers. Ie if a=10 and b=20 then after swapping value will be a=20 and b=10 3

Q11. Draw truth table of 3 input XNOR gate and its circuit diagram 3

Q12. What is significance of UNICODE encoding system? 2

Q13. Fill in the blanks: 2

(i) Each hexadecimal digit has its own value or weight expressed as a power of ----------

(ii) If X, Y are two logical variable then what is the right hand side value of the below expression

X+(Y+Z)= ----------

Q14.	Why NAND and NOR Gates are more popular?	2
Q15.	Design a logic circuit to realize the Boolean function **Y=A'B'C'D+AB'C'D+ABC'D+ABCD'**	2
Q16.	Proof Demorgan's two theorems algebraically.	5
Q17.	Write a program to find the area of circle	2
Q18.	Write the program to count number of vowels present in the given string. If the string is **"Programming"**	3
Q19.	State and Verify Absorption Laws and distributive Law with the help of Truth Table.	5