Subject: Computer Science   **SET A**   **F.M. : 50**

Time : 2:00 hrs.   **P.M : 20**

Group A

Multiple choice questions.   (1×9=9)

1. How many characters are there in 1 MB.
   a) 1,048,576   b) 1,028,576   c) 1024   d) 8,192

2. The transfer between CPU and Cache is..........
   a) Block transfer   b) Word transfer
   c) Set transfer   d) all of the above

3. The octal no(43.16) is equivalent to
   a) hexadecimal no (23.78)   b) binary no (101011.001110)
   c) decimal no (433.176)   d) all of the above

4. Four statements are given below. Identify the correct statement.
   a) XOR is universal gate   b) XNOR is basic gate
   c) XOR is derived gate   d) XOR is basic gate

5. In Boolean Algebra, (A.A')+A =
   a) A'   b) A   c) 0   d) 1

6. Which is valid C expression?
   a) int my_num = 100,000;   b) int my_num = 100000;
   c) int my num = 1000;   d) int $my_num = 10000;

7. What is the output of the following c codes?
   ```c
   #include <stdio.h>
   int main()
   {
   int d, a = 1, b = 2; //initialization
   d = a++ +++b;
   printf("%d %d %d", d, a, b);
   }
   ```
   a) 1,2,3   b) 4,2,2   c) 4,2,3   d) compile time error

8. How many times i value is checked in the following C program?
```c
#include <stdio.h>
int main()
{
int i = 0;
while (i < 3)
i++;
printf("In while loop\n");
}
```
a) 2   b) 3   c) 4   d) 1

9. which of the following is not a singular tag.
a) <p>   b) <img>   c) both a and b   d) none of the above

Group B
(5×5=25)

Short answer questions.
1. What do you mean by microprocessor? Define the term SRAM, EEPROM in details. (1+4)
2. Why hard disk is popular than floppy disk. Subtract 10110 from 11001 by using 2's complement method. (1+4)
3. What do you mean by palindrome no. Write a program in C to check weather a no is palindrome or not. (1+4)
4. What do you mean by HTML, mention the objectives of HTML? Write an HTML code to get the following output. (2+3)

Company	Contact	Country
Microsoft	Redmond	USA
GOOGLE	California	USA
Tesla	Texas	USA

5. What do you mean by CPU? Mention the sub systems of CPU in details. (1+4)

Group C
(8×2=16)

Long answer questions.
1. a) WAP in C to input a matrix of order m*n, and display the inputted matrix in proper order then calculate and display the sum of every elements of the matrix. (5)
   b) What do you mean by while loop, mention the syntax and flowchart of while loop. (3)

2. Define X-NOR gate with their Boolean expression, logical diagram, truth table and venn diagram. Implement all basic gates by using NOR gate only. Also define the truth table and Boolean expression. (6+2)

'Good Luck'