A D PATEL INSTITUTE OF TECHNOLOGY

A.Y. 2008-2009, Semester 1

Internal Test (GTU)

CPU - Computer Programming & Utilization

Date: 17/09/2008 **Max. Marks: 20**

Note:

1. Figures on the right indicate marks.
2. Make the necessary assumption if required.

Q.1 (a) **Define the following terms [Any Three]** [3]

1. Array
2. Header file
3. Logical Operator
4. Variable

(b) Answer the following Questions from given options. [8]

1. Which header file contains mathematical functions.
   a) math.h b) conio.h
   c) stdio.h d) string.h

2. Which file is created after compiling C program?
   a) .obj b) .exe
   c) .c d) .h

3. Which is the valid Numerical Constants?
   a) 7.1e 4 b) $255
   c) 25,000 d) None of the above

4. Which character constant is used for vertical tab?
   a) '\a' b) '\v'
   c)'\t' d) '\b'

5. How many bits are used to store Character Data Types?
   a) 2 bits b) 3 bits
   c) 8 bits d) None of the above

6. Which operator has highest priority among given option?
   a) * b) /
   c) % d) -

7. Which code is used to read hexadecimal integer?
   a) %d b) %f
   c) %u d) %x

8. Which statement is used to transfer the control out of the loop?
   a) continue b) break
   c) default d) None of the above

(c) Determine whether the following statement is True or false and justify your ans. [2]

1. The purpose of the header file such as "stdio.h" is to store the source code of a program.
2. All variables must be given a type when they are declared.

Q.2(a) Write a C program for the following definitions [Any Two]. [5]

1. WAP to Multiply two 3*3 Matrices.
2. WAP to evaluate the following pattern.

```
1
2  3
4  5  6
```

3. WAP to sort the array of 10 elements in ascending order and find Maximum and Minimum element of the array.

(b) How many times Hello will be printed in the following code. [1]

```
1.  main()
    {
       int m=1;
       int n=0;
        for( ; m+n<10;n++)
        printf("Hello\n");
       m =m+10;

    }
```

(c) Write the Output of the following statements. [1]

```
1.  main()
    {
       int m[5] = {1,2,3,4,5};
       int x,y=0;
       for(x=0;x<5;x++)
       {
                y=y + m[x];
        }
        printf("%d",y);
     }
```

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