A D PATEL INSTITUTE OF TECHNOLOGY

A.Y. 2008-2009, Semester 1

Internal Test (GTU)

CPU - Computer Programming & Utilization

Date: 26/09/2008 **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 Two]** [2]

1. Keywords
2. Constants
3. Flowchart

(b) Answer the following Questions. [6]

1. Explain the Structure of a C Program.
2. Explain the different types of looping statements with Syntax. Give the difference Between While and Do-While loops.
3. Explain basic types of operators in C.

(c) Determine whether the following statement is True or false. [1]

1. We can write more than one main function in a single C program.
2. Assignment operator for a = a + b is a=a=+b.

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

1. WAP to convert entered days into year, month and remaining days.
2. WAP to evaluate the following pattern.

```
        *
      *   *
    *   *   *
  *   *   *   *
```

3. WAP to evaluate the following series to make sum of square of n numbers.
   $1^2 + 2^2 + 3^2 + \ldots + n^2$

(b) Find errors if any from each of the following statements. [2]

1.
```
main()
{
   Int a = 10
   print("%d",&a);
}
```

2.
```
main()
{
  int x;
   while(x!=10)
{
  x=1;
  printf("%d",x);
  x++;
}
}
```

(c) Write the Output of the following statements. [2]

1.
```
main()
{
  int a=5,b=10,c,d;
  a-- ;
  b=a++ ;
  c=b++;
  d=a + b-- +c;
  printf("%d%d%d%d",a,b,c,d);
  getch();
}
```

2.
```
main()
{
   int a,b,c,x,y;
   x = a++ - c;
   y = b-- + x;
   printf("%d%d",x,y);
}
```

(d) Determine how many times the body of each loop will be executed. [2]

1.
```
main()
{
   int p=5;
   int q=2;
    while(x>0)
      {
        x=p%q;
        q=q+1;
         --------
         --------
      }
}
```

2.
```
main()
{
  int i = 1;
  float j = 0.8;
  while (i<=5)
   {
     _________
     _________
     i = i +j;

}
```

****