



Duration: 1½ Hours

Date: 22.10.07

Time : 4.00pm to 5.30pm

Answer all Three Questions

Q1.

i) Which of the following words are invalid identifiers in Pascal? Give reasons.

- | | | |
|--------------|---------------|-------------|
| a) 6PaySheet | b) Mark Sheet | c) @Payment |
| d) Begin | e) Main | f) Result |

ii) What are the advantages of declaring variables in the TYPE section?

iii) What are the user defined data types in Pascal? Briefly explain.

iv) Write a Pascal program to read the following information of three persons.

- Registration No
- Name
- Subject
- Marks

Q2.

i) What would be the output of the following C program segments? Briefly explain step by step what happens in each program segment.

a)

```
#include<stdio.h>

main()
{
    int a = 5; float b = 10.7346;

    printf("Answer of = a%3d\n",a);
    printf("Answer of = b%04d\n",a);
    printf("Answer of = c%5.2f\n",b);
    printf("Answer of = d%07.2f\n",b);
}
```

b)

```
#include<stdio.h>
main()
{
    int x = 2, y = 4, p=9, q = 8;
    int a,b,c,d;
    a = x + (q++);
    b = q + (--x);
    c = p + (++y);
    d = y + (--x);
    printf("Answer of = a%d\n",a);
    printf("Answer of = b%d\n",b);
    printf("Answer of = c%d\n",c);
    printf("Answer of = d%f\n",d);
}
```

ii) Identify the syntax errors in the following C program and write the corrected program.

```
#include<stdio.h>
main();
{
    int a;
    printf("Enter a number :"\n);
    scan("%f",a);
    if( a>5) ;
    printf("you win the game")
    else;
    printf("sorry")

}
}
```

iii) Write a C program to enter numbers and calculate the total and average of those. Your program may be terminated by entering a negative value.

Q3.

- i) "C language is very much richer in operators and it consists of more operators than in Pascal language". Justify your answer.
- ii) Write a C program to calculate the factorial of a given number using the FOR loop.
- iii) Convert the following Pascal programs into C programs.

a)

```
program result(input,output);

const
    x = 5;
    y = 3;
var
    marks : array[1..x,1..y] of integer;
    i,j : integer;

Begin
    For i := 1 to x do
        Begin
            For j := 1 to y do
                Begin
                    Writeln('enter number:');
                    Readln(marks[i,j]);
                End;
            End;
        End;
    Readln;
End.
```

b)

```
program abc (input);
var
    x : integer;
Begin
    Writeln('enter marks');
    Readln(x);
    if(x>55) then
        Writeln('grade pass')
    else
        Writeln('grade fail');
    Readln;
End.
```

*** All Rights Reserved ***