INTRODUCTION TO PROGRAMMING (SEMESTER - 4)

CS/B.Tech (BME)/SEM-4/CS-408/09

1. ....
Signature of Invigilator

2. ....
Signature of the Officer-in-Charge

Reg. No.

Roll No. of the Candidate

Time : 3 Hours]   [Full Marks : 70

INSTRUCTIONS TO THE CANDIDATES :

1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.

2. a) In **Group – A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.

   b) For **Groups – B** & **C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group – B** are Short answer type. Questions of **Group – C** are Long answer type. Write on both sides of the paper.

3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.

4. Read the instructions given inside carefully before answering.

5. You should not forget to write the corresponding question numbers while answering.

6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.

7. **Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**

8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.

9. Rough work, if necessary is to be done in this booklet only and cross it through.

No additional sheets are to be used and no loose paper will be provided

FOR OFFICE USE / EVALUATION ONLY
Marks Obtained

	Group – A													Group – B		Group – C			Total Marks	Examiner's Signature
Question Number																				
Marks Obtained																				

....
Head-Examiner/Co-Ordinator/Scrutineer

4664 (16/06)

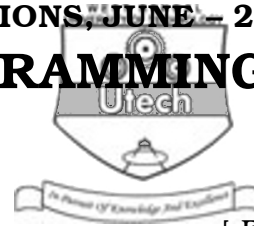**ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009**

INTRODUCTION TO PROGRAMMING

SEMESTER - 4

Time : 3 Hours]   [Full Marks : 70

GROUP – A

(Multiple Choice Type Questions)

1.   Choose the correct alternatives for the following :   10 × 1 = 10

   i)   No. of bytes reserved for long double is

      a)   8   b)   10

      c)   12   d)   none of these.

   ii)   Conditional operator is

      a)   unary operator   b)   binary operator

      c)   ternary operator   d)   none of these.

   iii)   In odd loop

      a)   the statements within the loop are executed depending on the outcome of the user

      b)   the statements within the loop are executed first, then the condition is checked

      c)   the statements within the loop are executed depending on the condition

      d)   none of these.

iv) What would be the output of the following ?

```
main()
{
    float x = 98·412498 ;
    printf("%6·2 f", x);
}
```

a) 98   b) 98·4124

c) 98·41d)   98·412498.

v) What would be the output of the following ?

```
main()
{
    int a = 3, b = 4 ;
    b% = 3 + 4 ;
    a * = a + 5 ;
    printf("%d%d",b,a);
}
```

a) 4   24   b) 0   24

c) 5   14   d) none of these.

vi) What would be the output of the following ?

```
main()
{
    int x = 7, y = 5 ;
    x = y++ + x++ ;
    y = ++y + ++x ;
    printf("%d%d", x, y );
}
```

a) 12   14   b) 12   20

c) 14   21   d) none of these.

vii) All the members of class are by default

a) public   b) private

c) protected   d) both (a) and (b).

viii) The example of 16-bit compiler is

a) visual C++   b) Intel 8086

c) gcc compiler   d) none of these.

ix) The fseek() function is used to

a) give the current position in the file

b) set the position to the beginning of the file

c) set position to the desired point in the file

d) create a new file.

x) To allocate the memory dynamically in C++, the operator used is

a) enum b)   delete

c) new   d) scope resolution operator.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.   3 × 5 = 15

2. Differentiate between type conversion and type casting. Explain with a suitable example.

3. What is odd loop ? Explain with example.

4. Write down the features of Object Oriented Programming Languages.

5. What are the advantages of using pointer ? What is pointer to pointer ?

6. What is dynamic memory allocation ? Write down the advantages and disadvantages of dynamic memory allocation over static memory allocation.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.   3 × 15 = 45

7. a) What are the differences between automatic variable and static variable ? Explain with an example.   3

    b) What do you mean by stack overflow and stack underflow ?   4

    c) Write a program to multiply two matrices of order LxM and MxN.   6

    d) What are the advantages and disadvantages of recursion ?   2

8. a) Write a program to concatenate two strings without strcat() function.   5

    b) What are the differences between structure and class ?   3

    c) What is pointer to a function ? Explain with example.   4

    d) What would be the output of the following code ?   3

```
main()
{
        int n[3][3]={2, 4, 3,
                6, 8, 5,
                3, 5, 1};
        int i,j;
        for( i =2; i > = 0 ; i -- )
        {
           for(j = 2; j > = 0; j -- )
                printf("%d", * ( * (n + 1) + j ));
        }
}
```

9. a) What is command line argument ? 2

    b) Write a program o write a text into a file. Find all the vowels from that text to store them into another file and display them. 6

    c) Explain different file operation modes. 4

    d) Write down the differences between macro, function, inline function. 3

10. a) What is function overloading ? Explain with an example. 5

    b) Write down the characteristics of friend function. 3

    c) Why the constructors and destructors are used in C++ ? Explain with an example. 5

    d) What is the difference between private and protected access specifier ? 2

11. Write the short notes on any *three* of the following : 3 × 5

    a) Virtual base class

    b) Inheritance

    c) Storage class

    d) Preprocessor

    e) Void pointer.

═══════

END