Set No. 1

Code No: R10105 / R10

I B.Tech I Semester Regular/Supplementary Examinations January 2012
C PROGRAMMING
(Common to all branches)

Time: 3 hours   **Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
****

1.(a) What is an algorithm? Write an algorithm to arrange three integer elements in ascending order.
  (b) What are the programming development steps? Explain.

[8M+7M]

2.(a) Write briefly about the C Tokens with suitable examples.
  (b) Write a program to find largest of three numbers using conditional operator.

[7M+8M]

3.(a) Write briefly about bit-wise operators with suitable examples
  (b) Write a program to award the grade to the students, based on average marks (Use switch statement).

[8M+7M]

4. What are the different types of iterative statements? Explain each with suitable example.

[15M]

5.(a) What is an array? Describe array declaration, initialization and accessing array elements.
  (b) Write a program to implement matrix multiplication using two dimensional arrays.

[7M+8M]

6.(a) What are the different types of storage classes? Explain each with suitable example.
  (b) Write a program to generate Fibonacci series using recursive function.

[7M+8M]

7.(a) What is a pointer? Describe call by value and call by address with suitable examples
  (b) Write a program to arrange a set of strings in ascending order using pointer.

[7M+8M]

8.(a) List the differences between structure and union. Describe structure declaration, initialization and accessing elements.
  (b) Write briefly about the self referential structure and dynamic memory management functions.

[7M+8M]

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Time: 3 hours　　　　　　　　　　　　　　　　　　**Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
****

1.(a) What are the computer languages? Explain and Draw the flow chart for finding the smallest of three numbers.

　(b) What are the different types of operators in C programming language? Give an example on each operator.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[7M+8M]

2.(a) Write briefly about the two-way and multi-way selection statements.

　(b) Write a program to print the given any integer number in words using switch and while statements.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[7M+8M]

3.(a) What are the advantages of for loop? List the differences between for loop and do while loop. Give an example on break and continue statements.

　(b) Write a program to print the given format

```
        *
      *   *
    *   *   *
   .......................
  ..........................................
```

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[7M + 8M]

4.(a) Explain in detail about 1-Dimensional and 2- Dimensional array declaration, accessing elements, initialization with suitable examples.

　(b) Write a program to arrange characters of any given string in ascending order.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[8M+7M]

5.(a) Write briefly about the user defined functions and standard library functions. Give an example on parameter passing and static storage class.

　(b) Write a program to implement towers of Hanoi using recursive function.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[8M+7M]

6.(a) What is dangling pointer? Give an example on pointers to pointer and passing by address.

　(b) Explain about dynamic memory allocation functions and use of command line arguments.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[7M+8M]

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7. Write short notes on
    (a) Structures and Functions, Bit –Fields
    (b) Structure and union
    (c) Extern , auto and register storage classes.

    [5M+5M+5M]

8.(a) Describe in details about file handling functions in C programming language.
  (b) Write a program to copy the one file data into another file.

    [8M+7M]

Code No: R10105 / R10

Set No. 3

I B.Tech I Semester Regular/Supplementary Examinations January 2012
COMPUTER PROGRAMMING
(Common to all branches)

Time: 3 hours   **Max Marks: 75**

Answer any FIVE Questions
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****

1.(a)   what is pseudo code? Draw the flow chart for finding factorial of a number.
  (b)   List out differences between interpreter and compiler. Discuss different computer
        languages.

                                                                          [7M+8M]

2.(a)   Write a program to find the roots of a quadratic equation.
  (b)   Write a program to find the reverse of a given integer using while.

                                                                          [7M+8M]

3.(a)   Explain different selection statements with their syntax
  (b)   Write a program using do-while loop for the following format.

                                1

                              2   2

                            3   3   3

                          4   4   4   4

                        5   5   5   5   5

                                                                          [7M+8M]

4.(a)   What is an Array? Explain compile time and run time initialization with suitable
        examples.
  (b)   Write aprogram for finding trace of a matrix using 2-dimensional arrays.

                                                                          [7M+8M]

5.(a)   What is recursion? Write aprogram to search an element in an array using recursive
        function.
  (b)   Define function? Explain functions with return type and non-return type with suitable
        examples.

                                                                          [7M+8M]

6.(a)   What are command line arguments. Write a program to count the number of strings on
        the command line.
  (b)   What is a pointer? Discuss call by value and call by reference with suitable examples.

                                                                          [7M+8M]

7.(a)   What is nested structure? Write aprogram to print the details of employees of
        aorganization like(Name, DateOfJoin, Salary) using nested structures.
  (b)   Give difference between structure and union. Write a program using union.

[8M+7M]

8.(a)   What is a file? How do you declare a file? Explain different modes of operations on files
        with examples.
  (b)   Write a program to merge the content of two files into a third file.

[8M+7M]

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1.(a) Write an algorithm and draw the flowchart for finding the area of a circle.
  (b) Explain the different steps involved in creating and running programs with a neat flowchart.

                                                                        [7M+8M]

2.(a) What are an identifiers, variables and constants? Mention the rules to construct an identifier. Give some examples.
  (b) Explain the structure of a C program with an example to each step.

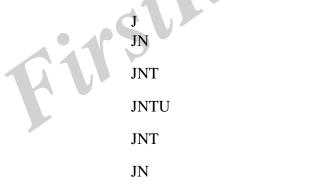   [8M+7M]

3.(a) Write a program to find the largest number in an array of elements.
  (b) Explain different string manipulation functions with examples.

                                                                        [7M+8M]

4.(a) What is an array? What are its advantages? Explain declaration, intialization, accessing elements in an array.
  (b) Write a program to display a string in the following format.

                                                                        [8M+7M]

                                J
                                JN
                                JNT
                                JNTU
                                JNT
                                JN
                                J

5.(a) What are the different storage classes? Explain with suitable examples.
  (b) Write a program for finding GCD of two numbers using recursive function.

                                                                        [7M+8M]

6.(a) What is a void pointer? Explain array of pointers with an example.
  (b) What is the difference between character pointer and integer pointer? Write a program using pointer to pointer with functions.

                                                                        [7M+8M]

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7. Write short notes on
   (a) pointer to structures.
   (b) difference between structure and union.
   (c) bitfields.

[5M+5M+5M]

8.(a) Write a program to reverse the first n characters in a file.
   (b) What is a text file, binary file? Explain formatted I/O in files.

[7M+8M]