

**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**

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- 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]

**Set No. 2****Code No: R10105 / R10****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 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

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

.....

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- 4.(a) Explain in detail about 1-Dimensional and 2- Dimensional array declaration, accessing elements, initialization with suitable examples. [7M + 8M]
- (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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**Set No. 2**

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]

**Set No. 3****Code No: R10105 / R10****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 a program for finding trace of a matrix using 2-dimensional arrays. [7M+8M]
- 5.(a) What is recursion? Write a program 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]

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**Set No. 3**

- 7.(a) What is nested structure? Write a program to print the details of employees of an organization 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]

**Set No. 4****Code No: R10105 / R10****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  
All Questions carry equal marks**

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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, initialization, 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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**Code No: R10105 / R10**

**Set No. 4**

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]