GANPAT UNIVERSITY
B. Tech SEM-I (CE/IT/EC/BM&I)
Regular Examination Nov/Dec-2011
108: Computer Programming

Time: 3 Hours]   [Total Marks: 70

Instructions:
   1. Figures to the right indicate full marks
   2. Each section should be written in a separate answer book
   3. Be precise and to the point in your answer

SECTION-I

Q-1. (a) Explain the basic structure of C program.   [4]

(b) Write a program which finds whether the entered number is odd or even. Display an appropriate message if entered number is zero.   [4]

(c) What is type casting? Explain it with example.   [4]

[OR]

Q-1. (a) List various character test functions and explain any four with the help of programs.   [4]

(b) Describe "switch statement" with the help of a program for it.   [4]

(c) Explain the difference between getch(),getche(),getchar(),getc() and scanf("%c",...) with the help of programs.   [4]

Q-2. Answer the following:

(a) Explain in detail "multiple variable for loop" and "nested for loop" with the help of a program for each.   [6]

(b) Show declaration and initialization of any one, two and three-dimensional array and state meaning of each part in declaration of them.   [5]

[OR]

Q-2. (a) Describe various methods to initialize string and specify difference between them using program.   [6]

(b) Explain "simple for loop" and meaning of each section in it. Also specify a sample program to represent its functionality.   [5]

Q-3. Answer the following: (Any Three)   [12]

(a) List various logical operators with example for each.

(b) List various types of constant with examples for each.

(c) Write a program to find factorial of any integer using (a)do...while loop

(d) Write a program which checks whether the entered number is palindrome or not.

[P.T.O]

Q-4. (a) Write a prog to copy one string to another. [4]

(b) Explain "simple if", "if else" and "else if ladder" with the help of a program for each. [4]

(c) **Define:** Precedence and Associativity. [4]

[OR]

Q-4. (a) Explain various methods to scan string using sample program for each. State the difference between each method. [4]

(b) Differentiate between "while" and "do while" with the help of a program. [4]

(c) Write a program to check whether a year given by the user is a leap year or not. [4]

Q-5. (a) Write a program which counts and prints all odd elements of an int array. [6]

(b) Write a program to perform the matrix multiplication for two 3*3 matrixes and then find the maximum element from the resultant matrix. [5]

[OR]

Q-5. (a) Write a C program to print the following output. [6]

```
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
```

(b) Explain the process of compiling and running a C Program. [5]

Q-6. **Answer the following: (Any Three)** [12]

(a) Write a C program to generate Fibonacci series.(e.g. 1 1 2 3 5 8 13)

(b) Write a Program which scans three integer numbers and then find which one is greater.

(c) List out the category of the function. Explain any two categories with example.

(d) Write a C program to cut a portion of a string. Take input for string and both positions for cutting. (e.g. string is "palindrome", cut this string from 4-7 ,then resultant string will be "palome")

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